GT CDAIT
Biweekly IoT News Digest (03/21 – 1)

COVID-19 & THE INTERNET OF THINGS

See some perspectives gathered by CDAIT on the use of IoT technologies in preventing and monitoring COVID-19 like infectious diseases & pandemic impact on IoT – as of 03/15/2021 - 723 entries:
https://devcdait.gatech.edu/sites/default/files/covid-19_iot_january_2020_march_15_2021.pdf

GLOBAL TECHNOLOGY GOVERNANCE & THE INTERNET OF THINGS

Matthew McDermott, "Key technology policy trends 2021," ITProPortal, March 10, 2021
https://www.itproportal.com/features/key-technology-policy-trends-2021/

Natasha Kone, Michelle Reed and Lauren York, "FDA Appoints Acting Director of Medical Device Security, Signaling Increased Commitment to Medical Device Cybersecurity," JDSupra, March 5, 2021
https://www.jdsupra.com/legalnews/fda-appoints-acting-director-of-medical-6696829/

[New York City] Mayor's Office of the Chief Technology Officer,"The New York City Internet of Things Strategy," New York City, 78 pages, March 4, 2021
https://www1.nyc.gov/assets/cto/downloads/iot-strategy/nyc_iot_strategy.pdf

Mariam Baksh, "Comments on draft documents required under the IoT Cybersecurity Improvement Act raise concerns of both fragmentation and a lack of flexibility," NextGov, March 4, 2021
https://www.nextgov.com/cybersecurity/2021/03/nist-planning-workshop-comply-law-federal-iot-procurement/172462/

Pranjal Sharma, "Governance and Technology Systems - *Technology saved humanity in 2020. Many may argue against it, but any semblance of normal life in 2020 was enabled by connected technologies and automated processes*," UiPath India, March 3, 2021
https://uipathindia.com/pioneersofautomation/2021/03/03/governance-and-technology-systems/

IoT News and Market Reports

(First Half of March 2021)

- Selected **IoT-related announcements and featured activities/topics in the first half of March 2021** gathered by CDAIT from governments; agencies; consortia; alliances; associations; standards, research and other similar groups around the world – 15 entries – See: https://devcdait.gatech.edu/sites/default/files/iot_news_filings_march_2021_first_half.pdf
- Sample list of **IoT-related market reports published in the first half of March 2021** gathered by CDAIT– 76 entries – See: https://devcdait.gatech.edu/sites/default/files/iot_market_reports_march_2021_first_half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Ana Pamela Castro-Martin, Horacio Ahuett-Garza, Darío Guamán-Lozada, Maria F. Márquez-Alderete, Pedro D. Urbina Coronado, Pedro A. Orta Castañon , Thomas R. Kurfess, and Emilio González de Castilla, "**Connectivity as a Design Feature for Industry 4.0 Production Equipment: Application for the Development of an In-Line Metrology System**," Applied Sciencds 2021 [published February 1, 2021], 11(3), 1312; https://doi.org/10.3390/app11031312
- Jean C. Rivera-Rios, Taekyu Joo, Masayuki Takeuchi, Thomas M. Orlando, Tracy Bevington, John W. Mathis, Cliffton D. Pert, Brandon A. Tyson, Tyler M. Anderson-Lennert, Joshua A. Smith, and Nga Lee Ng, **"In-flight particulate matter concentrations in commercial flights are likely lower than other indoor environments**," International Journal of Indoor Environment and Health, March 1, 2021 https://doi.org/10.1111/ina.12812
- Salimah LaForce (Point of Contact), "**Technology and Disability Policy Highlights - February 2021**," Center for Advanced Communications Policy (CACP), March 11, 2021 https://cacp.gatech.edu/news/item/645230/technology-disability-policy-highlights-february

OF NOTE: Fotios Chantzis & Ioannis Stais, "**Why is IoT security so important**?" An excerpt from their forthcoming book (to be published on March 23, 2021 by No Starch Presson) on "**Practical IoT Hacking: The Definitive Guide to Attacking the Internet of Things**," Built in, March 1, 2021 https://builtin.com/iot-internet-things/practical-iot-hacking

Special Reading Suggestions

Articles

- Brian G. Cesaratto and Alexander J. Franchilli, "**New Internet of Things (IoT) Cybersecurity Law's Far Reaching Impacts**," National Law Review, March 11, 2021 https://www.natlawreview.com/article/new-internet-things-iot-cybersecurity-law-s-far-reaching-impacts
- Shraddha Goled, "**How To Build A Career In IoT?"** Analytics India Magazine, March 10, 2021 https://analyticsindiamag.com/how-to-build-a-career-in-iot/
- IoT Now, "IoT Now Magazine 2021 Q1 – **Enterprises gear up to be major IoT players,"** IoT Now, March 5, 2021 https://www.iot-now.com/2021/03/05/108122-iot-now-magazine-2021-q1-enterprises-gear-up-to-be-major-iot-players/
- Nick Earle, "**Five steps to successful global IoT deployment: A guide**," IoT Tech News, March 3, 2021 https://iottechnews.com/news/2021/mar/03/five-steps-to-successful-global-iot-deployment-a-guide/
- Srikanth, "**IoT in Manufacturing: The Success Story Nobody's Talking About,"** Techiexpert (India), March 2, 2021

Selected IoT Perspectives

The Internet of Things and Quantum Computing (*)

- Tanya Sadhukan, "**The Convergence of Quantum Computing and Internet of Things (IoT),"** IoT Avenue, February 1, 2021 https://www.iotavenue.com/convergence-of-quantum-computing-and-internet-of-things
- Ahmed Banafa, "**The Convergence of IoT and Quantum Computing,"** IEEE IoT Newsletter, January 11, 2021 https://iot.ieee.org/newsletter/january-2021/the-convergence-of-iot-and-quantum-computing
- AI Trends Staff, "**Quantum Computing with AI Seen Helping to Advance IoT,"** AI Trends, March 26, 2020 https://www.aitrends.com/hpc/quantum-computing/quantum-computing-with-ai-seen-helping-to-advance-iot/
- Chuck Brooks, "**Quantum Trends And The Internet of Things,"** Forbes, December 5, 2019 https://www.forbes.com/sites/cognitiveworld/2019/12/05/quantum-trends-and-the-internet-of-things/?sh=4622f373eb0f
- Junko Yoshida, "**Where IoT, AI & Quantum Computing Meet,"** EE Times, June 9, 2019 https://www.eetimes.com/where-iot-ai-quantum-computing-meet/#
- Ann Tegio, "**Quantum Computing and the IoT,"** Azo Quantum, January 3, 2019 https://www.azoquantum.com/Article.aspx?ArticleID=101

Research background info: Rameez Asif (published February 5, 2021) **"Post-Quantum Cryptosystems for Internet-of-Things: A Survey on Lattice-Based Algorithms"** IoT 2, no. 1: 71-91. https://doi.org/10.3390/iot2010005; Alekha Parimal Bhatt and AnandSharma, "**Quantum Cryptography for Internet of Things Security**," Journal of Electronic Science and Technology, Volume 17, Issue 3, September 2019, Pages 213-220, https://www.sciencedirect.com/science/article/pii/S1674862X19300345 ; Neeraj Kumar, Alka Agrawal, Brijesh K. Chaurasia and Raees Ahmad Khan, "**Limitations and Future Applications of Quantum Cryptography,"** (Book), IGI Global, December 2020 – see Chapters 7 and 8 related to quantum security for IoT in healthcare https://www.igi-global.com/book/limitations-future-applications-quantum-cryptography/256632#table-of-contents

*(*) At a more general level, see the bipartisan, bicameral legislative activity and debates around the "**Endless Frontier Act**" which, among other things, aims to redesignate the National Science Foundation (NSF) as "National Science and Technology Foundation (NSTF)" and "strengthen U.S. leadership in critical technologies" (quantum computing being one of them): Mitch Ambrose, "Senate Aiming to Pass Endless Frontier Act and Chip Funding This Spring," American Institute of Physics, February 24, 2021 https://www.aip.org/fyi/2021/senate-aiming-pass-endless-frontier-act-and-chip-funding-spring*

Georgia Tech Center for the Development and Application of Internet of Things Technologies
www.cdait.gatech.edu

March 15, 2021