



Digest is compiled by Alain Louchez,
CDAIT Co-founder & Director Emeritus

CHRONICLE OF DIGITAL TRANSFORMATION (DT) THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives on DT from around the globe gathered by CDAIT - 50 added for this Digest (3050 entries since April 1, 2022) https://cdait.gatech.edu/sites/default/files/2024-11/Digital_Transformation_Through_IoT_Technologies_November_15_2024.pdf

GOVERNANCE & THE INTERNET OF THINGS

Byron V. Achohido, "Technology breakthroughs, emerging standards are coalescing to assure IoT integrity," Security Boulevard, November 11, 2024 <https://securityboulevard.com/2024/11/my-take-technology-breakthroughs-emerging-standards-are-coalescing-to-assure-iot-integrity/>

Bernama [Malaysia] posting, "Govt Involvement in IoT Spurs National Energy Industry's Efficiency," Bernama, November 11, 2024 <https://www.bernama.com/en/general/news.php?id=2361786>

Ellen Boehm, "Importance of IoT Trust Grows as Post-Quantum Reality Unfolds," IoT World Today, November 8, 2024 <https://www.iotworldtoday.com/security/importance-of-iot-trust-grows-as-post-quantum-reality-unfolds#close-modal>

Carl Williams, "Building the Connected City: The Role of IoT and 5G in Urban Transformation," Techtimes, November 7, 2024 <https://www.techtimes.com/articles/308193/20241107/building-connected-city-role-iot-5g-urban-transformation.htm>

Hollie Hennessy, "Despite Emerging Regulations, Mobile Device, IoT Security Requires More Industry Attention," Darkreading, November 6, 2024 <https://www.darkreading.com/iot/mobile-device-iot-security-requires-more-industry-attention>

Marie Hattar, "The coming of 6G poses new IoT security vulnerabilities," Betanews, November 5, 2024 <https://betanews.com/2024/11/05/the-coming-of-6g-poses-new-iot-security-vulnerabilities/>

Contributed Post, "More of your business is connected to the internet: Here's why that's a problem and what to do," Ed Tech Innovation Hub, November 4, 2024 <https://www.edtechinnovationhub.com/news/more-of-your-business-is-connected-to-the-internet-heres-why-thats-a-problem-and-what-to-do>

GT CDAIT Biweekly IoT News Digest (11/24 - 1)

Georgia Tech IoT-related Info/Research Noticed by CDAIT

IoT News and Market Reports

(First Half of November 2024)

- 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: https://cdait.gatech.edu/sites/default/files/2024-11/IoT_News_Filings_November_2024_First_Half.pdf
- Sample list of IoT-related market reports gathered by CDAIT - 50 entries: https://cdait.gatech.edu/sites/default/files/2024-11/IoT_Market_Reports_November_2024_First_Half.pdf
- Bagchi, Saurabh, Mahsa Ghasemi, Kang G. Shin, Nalini Venkatasubramanian, Dongyan Xu, and Saman Zonouz, "Role of Resilience in Cyber-Physical Systems: A Roundtable Panel," Computer 57, no. 7 (2024): 154-159 <https://ieeexplore.ieee.org/abstract/document/10574453>
- Clayton, Paige, Robert Goodspeed, Jamaal Green, Allison Lassiter, William Riggs, and Bev Wilson, "More than Analytics: Five Approaches to Educating Professionals to Shape Today's Digital Cities," Journal of Planning Education and Research (2024): 0739456X241261372 <https://journals.sagepub.com/doi/full/10.1177/0739456X241261372>
- Presentations at 10th Annual IoT for Manufacturing (IoTfM) Symposium [10/13/2024] hosted by the Georgia Tech Manufacturing Institute (GTMI) and previous events are available here: <https://www.fis.gatech.edu/events/> [GT Factory Information Systems Center webpage]

OF NOTE: Jim McGregor, "System Design For The AI Era: The Path To AI-Native IoT," Forbes, November 7, 2024 <https://www.forbes.com/sites/tiriasresearch/2024/11/07/system-design-for-the-ai-era-the-path-to-ai-native-iot/> --- Anand Taparia, "IT/OT convergence: The 27 themes that define the future of industrial integration," IoT Analytics, November 13, 2024 <https://iot-analytics.com/it-ot-convergence-27-themes-define-future-of-industrial-integration/>

Special Reading Suggestions

- Salvatore Salamone, "Top Industrial IoT (IIoT) Trends for Manufacturing in 2025," RT Insights, November 10, 2024 <https://www.rtinsights.com/top-industrial-iiot-trends-for-manufacturing-in-2025/>
- Tracy Burrows, "How to avoid common IOT mistakes," IT Web [South Africa], November 8, 2024 <https://www.itweb.co.za/article/how-to-avoid-common-iiot-mistakes/Per03qZ3dAAvQb6m>
- Avnish Chauhan, "What Will Shape the Future of Non-Terrestrial Networks and Global IIoT?" Pipeline, November 5, 2024 <https://www.pipelinepub.com/cybersecurity-assurance-2024/security-assurance-for-fraud-free-IIoT>
- TechRound Team, "How Important is Geolocation Data For The Internet Of Things?" TechRound, November 5, 2024 <https://techround.co.uk/tech/how-important-geolocation-data-internet-of-things/>
- Niloy Banerjee, "The Dark Cloud, Internet of Threat Looms!" Timestech [India], November 4, 2024 <https://timestech.in/the-dark-cloud-internet-of-threat-looms/>
- Emily Newton, "Strategies for Implementing Effective Threat Detection in IIoT," Tripwire, November 4, 2024 <https://www.tripwire.com/state-of-security/strategies-implementing-effective-threat-detection-iiot>
- Shahwath T R, "Why Higher-performance Microcontrollers Matter For the Growth of the IIoT Ecosystem," Entrepreneur, November 2, 2024 <https://www.entrepreneur.com/en-in/technology/why-higher-performance-microcontrollers-matter-for-the-iiot/482132>
- iONLINE, "Is cyber security holding back IIoT uptake?" IT Web [South Africa], November 1, 2024 <https://www.itweb.co.za/article/is-cyber-security-holding-back-iiot-uptake/kYb9gMXbrXkvAWpG>

Selected IoT Perspectives

Update on Industry 5.0 in 2024 (part 1 was posted on 4/15/2024)

"At its foundation, Industry 5.0 is considered the next major global industrial revolution, moving manufacturers beyond the Industry 4.0 era of digitalization into a space where organizations leverage data and information for good. Of course, much of the "good" equates to business performance, but Industry 5.0 also outlines tenets of environmental, social and governance issues that guide how a business is run, how we treat those who keep it running and how the business itself impacts the rest of the world," Hélène Kyriakakis, "What Does Industry 5.0 Mean Today?" Forbes, October 29, 2024 <https://www.forbes.com/councils/forbestechcouncil/2024/10/29/what-does-industry-50-mean-today/>

- Garima Bora, "Through Industry 5.0, Indian manufacturers to focus on sustainability, target profitability: PwC," The Economic Times [India], October 25, 2024 <https://economictimes.indiatimes.com/small-biz/sustainability/through-industry-5-0-indian-manufacturers-to-focus-on-sustainability-target-profitability-pwc/articleshow/114580123.cms?from=mdr>
- Prof. Supriya Pattanayak, "The Rise of Education Industry 5.0: Integrating Human and AI Collaboration in Higher Education," Microsoft, October 25, 2024 <https://www.msn.com/en-in/money/news/the-rise-of-education-industry-5-0-integrating-human-and-ai-collaboration-in-higher-education/ar-AA1sV4yo>
- Dataquest Bureau India, "Industry 5.0: The Future of Manufacturing, Human and AI Collaboration," Dataquest India, October 23, 2024 <https://www.dqindia.com/business-technologies/industry-5-dot-0-the-future-of-manufacturing-human-and-ai-collaboration-7345960>
- Rob McAveney, "The Three Pillars of Industry 5.0," Automation, October 9, 2024 <https://www.automation.com/en-us/articles/october-2024/three-pillars-industry-5-0>
- Copa Data UK Ltd, "Fixing Industry 5.0's foundations," Process and Control Today, September 23, 2024 <https://www.pandct.com/news/fixing-industry-50s-foundations>
- Nicholas Jones, "IoT Advancements in Industry 5.0: Bridging the Gap Between Humans and Machines," Embedded Computing, May 23, 2024 <https://embeddedcomputing.com/application/industrial/industrial-iiot-advancements-in-industry-50-bridging-the-gap-between-humans-and-machines>
- Fluke Reliability, "Industry 5.0: The Future of Maintenance," IoT for all, May 6, 2024 <https://www.iotforall.com/industry-5-0-the-future-of-maintenance>

Research background info (sample) - 2024 sources: Thilini Ranasinghe, Eric H. Grosse, Tone Lerher, "Aging in Industry 5.0: Enhancing Human-Robot Synergy in Manufacturing and Logistics," IFAC-PapersOnLine, Volume 58, Issue 19, October 2024, Pages 367-372, ISSN 2405-8963, <https://doi.org/10.1016/j.ifacol.2024.09.239>; Horvat, Djerdj, Angela Jäger, and Christian M. Lerch, "Fostering innovation by complementing human competences and emerging technologies: an industry 5.0 perspective," International Journal of Production Research (online July 11, 2024): 1-24. <https://www.tandfonline.com/doi/full/10.1080/00207543.2024.2372009>; Sarkar, Bishal Dey, Vipulesh Shardeo, Ashish Dwivedi, and Dragan Pamucar, "Digital transition from industry 4.0 to industry 5.0 in smart manufacturing: A framework for sustainable future," Technology in Society 78 (September 2024): 102649 <https://www.sciencedirect.com/science/article/abs/pii/S0160791X24001970>; Abdel-Basset, Mohamed, Rehab Mohamed, and Victor Chang, "A Multi-criteria decision-making Framework to evaluate the impact of industry 5.0 technologies: Case Study, lessons learned, challenges and future directions," Information Systems Frontiers (published February 9, 2024): 1-31 <https://link.springer.com/article/10.1007/s10796-024-10472-3>

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