Collaborative Learning Discussion 1

Summary Post

by <u>Gokul Kurunthasalam</u> - Sunday, 18 September 2022, 1:48 PM Number of replies: 0

The potential to boost productivity and efficiency in manufacturing environments has been demonstrated by the digital revolution, often known as Industry 4.0. It is possible to gauge a hospital's maturity levels with regard to particular concepts by first identifying the specific Hospital 4.0 principles that serve as the foundation for the assessment model. A preliminary identification of the most essential and urgent Hospital 4.0 concepts is made easier by such an assessment.

I second to Iason Rigas post, "Other Industry 4.0 technologies such as IoT, BDA, blockchain and cloud computing have enabled significant changes in the development of healthcare, with their application of course carrying with them technological risks in various different implementations (Paul et al,2021). Thank you for bringing this to the discussion.

To answer Patricia Lapierre post, yes its divided as the system split into three layers: data acquisition, cloud Big Data analytics and application layer. The second layer tends to mitigate the leak of clients' data by compressing, storing, and formatting. Moreover, the Dutch national Digital Society Research Programme had organized a conference to help researchers, health care providers, and eHealth developers on how to handle privacy and legal matters in eHealth (Zegers et al. 2021) because data privacy presents a massive risk in the industry 4.0

Industry 4.0 was and is still perceived as the digital transformation process in the manufacturing sector capable of enhancing the effectiveness and efficiency of industrial entities (Matt et al., 2020). The increasing digitisation and automation level, which triggers naturally the merger of information technology (IT) and production or logistics processes received positive response in enterprises operating in different fields (Culot et al., 2019). The range of applications is not only limited to industrial sectors, since scientists pertaining to non-industrial domains are concerned of transferring Industry 4.0 concepts (Javaid and Haleem, 2019).

References:

Paul S, Riffat M, Yasir A, Mahim MN, Sharnali BY, Naheen IT, Rahman A, Kulkarni A. (2021) Industry 4.0 Applications for Medical/Healthcare Services. Journal of Sensor and Actuator Networks. 2021; 10(3):43. https://doi.org/10.3390/jsan10030043

Unterhofer, Rauch, E., & Matt, D. (2021). Hospital 4.0 roadmap: an agile implementation guideline for hospital manager. International Journal of Agile Systems and Management, 14(4), 635–656. https://doi.org/10.1504/IJASM.2021.120230

G. Culot, F. Fattori, M. Podrecca and M. Sartor, "Addressing Industry 4.0 Cybersecurity Challenges," in IEEE Engineering Management Review, vol. 47, no. 3, pp. 79-86, 1 thirdquarter, Sept. 2019, doi: 10.1109/EMR.2019.2927559.

Matt, Dominik T. Modrák, Vladimír, Zsifkovits, Helmut "Industry 4.0 for SMEs" Cham, 2020; 10.1007/978-3-030-25425-4; http://library.oapen.org/handle/20.500.12657/22857

Zegers et al. (2021). Mind Your Data: Privacy and Legal Matters in eHealth. Available from: https://formative.jmir.org/2021/3/e17456 [Accessed on 17 September 2022]