

## Sources

### Automation and digitalization – a timeline

#### AI and Machine Learning

##### Information Technology & Innovation Foundation

*Manufacturing Evolution – How AI will transform manufacturing and workforce*

<https://itif.org/publications/2019/08/06/manufacturing-evolution-how-ai-will-transform-manufacturing-and-workforce>

##### Radwell

*The History of AI in manufacturing*

[https://blog.radwell.com/the-history-of-ai-in-manufacturing?hs\\_amp=true](https://blog.radwell.com/the-history-of-ai-in-manufacturing?hs_amp=true)

##### Think Automation

*A history of automation – the rise of robots and AI*

<https://www.thinkautomation.com/bots-and-ai/a-history-of-automation-the-rise-of-robots-and-ai/>

*Milestones in artificial intelligence*

<https://www.thinkautomation.com/bots-and-ai/milestones-in-artificial-intelligence/>

##### Towards Data Science

*The decade of artificial intelligence*

<https://towardsdatascience.com/the-decade-of-artificial-intelligence-6fcdf2fae473>

## **Wikipedia/Machine Learning**

[https://en.wikipedia.org/wiki/Machine\\_learning](https://en.wikipedia.org/wiki/Machine_learning)

## **Analytics**

### **Dataversity**

*Brief History - Analytics*

<https://www.dataversity.net/brief-history-analytics/#>

### **Towards Data Science**

*The evolution of analytics with data*

<https://towardsdatascience.com/the-evolution-of-analytics-with-data-8b9908deadd7>

## **Automation**

### **Britannica/automation**

<https://www.britannica.com/technology/automation>

### **Robotics Business Review**

*How manufacturing automation is evolving*

<https://www.roboticsbusinessreview.com/manufacturing/how-manufacturing-automation-is-evolving/>

## **Big Data**

### **PromptCloud**

*Evolution of big data in modern technology*

<https://www.promptcloud.com/blog/big-data-evolution-technology-modern/>

### **Think Automation**

*The history of data*

<https://www.thinkautomation.com/histories/the-history-of-data/>

## **Cloud Computing**

### **Geeks for Geeks**

*Evolution of Cloud Computing*

<https://www.geeksforgeeks.org/evolution-of-cloud-computing/>

### **Scality**

*The history of cloud computing*

<https://www.scality.com/solved/the-history-of-cloud-computing/>

### **Seasia Info Tech**

*History and evolution of cloud computing*

<https://www.seasiainfotech.com/blog/history-and-evolution-cloud-computing/>

### **Technology Review**

*Who coined cloud computing?*

<https://www.technologyreview.com/2011/10/31/257406/who-coined-cloud-computing/>

## **Computer**

**Store norske leksikon**

*Datamaskinens historie*

[https://snl.no/datamaskinens\\_historie](https://snl.no/datamaskinens_historie)

## **Database**

**Blog/medium/@rpolding**

*Database's evolution and change*

<https://medium.com/@rpolding/databases-evolution-and-change-29b8abe9df3e>

**Dataversity**

*Brief history – Database management*

<https://www.dataversity.net/brief-history-database-management/>

**Think Automation**

*The history of databases*

<https://www.thinkautomation.com/histories/the-history-of-databases/>

**Wikipedia/Database**

<https://en.wikipedia.org/wiki/Database>

## **DataOps**

**Wikipedia/DataOps**

<https://en.wikipedia.org/wiki/DataOps>

## **Digital twin**

**Triple S**

*Hva er digitale tvillinger og hvordan kan de skape verdi?*

<https://blogg.triple-s.no/digitale-tvillinger-hva-de-er-og-hvordan-de-kan-skape-verdi>

**Wikipedia/Digital twin**

[https://en.wikipedia.org/wiki/Digital\\_twin](https://en.wikipedia.org/wiki/Digital_twin)

## **HMI**

**Control Engineering**

*Information systems – The evolution of the HMI*

<https://www.controleng.com/articles/information-systems-the-evolution-of-the-hmi/>

## **IIoT**

**General Electric – GE Digital**

*What is Industrial Internet of Things (IIoT)?*

<https://www.ge.com/digital/blog/what-industrial-internet-things-iiot>

## **Internet of Things Agenda**

*Definition - Industrial Internet of Things*

<https://internetofthingsagenda.techtarget.com/definition/Industrial-Internet-of-Things-IIoT>

## **Store Norske Leksikon**

*Tingenes internett*

[https://snl.no/tingenes\\_internett](https://snl.no/tingenes_internett)

## **Techahead**

*Evolution of IoT*

<https://www.techaheadcorp.com/knowledge-center/evolution-of-iot/>

## **Visual Capitalist**

*Timeline - Industrial Internet of Things*

<https://www.visualcapitalist.com/timeline-industrial-internet-things/>

## **Industry 4.0**

**Wikipedia/Fourth Industrial Revolution**

[https://en.wikipedia.org/wiki/Fourth\\_Industrial\\_Revolution](https://en.wikipedia.org/wiki/Fourth_Industrial_Revolution)

## **MES**

**Contel**

*The evolution of manufacturing execution systems*

<https://www.contel.com/news-item/the-evolution-of-manufacturing-execution-systems-mes/>

## **Tulip**

*The origins of manufacturing execution systems*

<https://tulip.co/ebooks/manufacturing-execution-systems/#chapter-two-the-origins-of-manufacturing-execution-systems-mes>

## **Wikipedia/Manufacturing Enterprise Solutions Association**

[https://en.wikipedia.org/wiki/Manufacturing\\_Enterprise\\_Solutions\\_Association](https://en.wikipedia.org/wiki/Manufacturing_Enterprise_Solutions_Association)

## **WorkWise**

*What is MES?*

<https://www.workwisellc.com/erp-software/what-is-mes/>

## **OPC**

### **OPC Connect/history**

<https://www.opcconnect.com/history.php#begin>

### **OPC Foundation/history**

<https://opcfoundation.org/about/opc-foundation/history/>

## **PLC**

### **C3 Controls**

*History of programmable logic controllers*

<https://www.c3controls.com/white-paper/history-of-programmable-logic-controllers/>

## **EECO**

*Evolution of the PLC – a timeline*

<https://eeconline.com/evolution-of-the-plc-a-historic-timeline/>

## **Electrical Connection**

*The evolution of the plc*

<https://electricalconnection.com.au/the-evolution-of-the-plc/>

## **Schneider Electric**

*A year to celebrate the programmable logic controller*

<https://blog.se.com/machine-and-process-management/2018/04/10/a-year-to-celebrate-the-programmable-logic-controller/>

## **The PLC Tutor/History**

<http://theplctutor.com/history.html>

## **SCADA**

### **Electrical Engineering**

*Three generations of SCADA system architectures*

<https://electrical-engineering-portal.com/three-generations-of-scada-system-architectures>



## **Electronics Coach**

*Scada system architecture*

<https://electronicscoach.com/scada-system-architecture.html>

## **Lanner America**

*Fourth generation SCADA systems modernizing remote industrial monitoring*

<https://www.lanner-america.com/blog/fourth-generation-scada-systems-modernizing-remote-industrial-monitoring/>

## **Process Solutions**

*A brief history of the SCADA system*

<https://processsolutions.com/a-brief-history-of-the-scada-system/>

## **The Earth Awards**

*A brief history of the SCADA system*

<https://www.theearthawards.org/a-brief-history-of-the-scada-system/>

## **WatElectronics**

*Know all about SCADA systems architecture and types*

<https://www.watelectronics.com/scada-system-architecture-types-applications/>

## **Wikipedia/SCADA**

<https://en.wikipedia.org/wiki/SCADA>