

# Chapter 10

## Development Trends in Robotization and Artificial Intelligence

### ABSTRACT

*This chapter analyzes developmental trends in robotization and artificial intelligence. The chapter begins by providing a brief history of artificial intelligence, focusing on developments during the 20<sup>th</sup> century. The chapter then examines developments of robot applications as well as their impacts on various economic sectors. Next, the ways in which AI have replaced advanced mental labor are examined, such as journalism. The chapter then focuses on the development of machine learning and deep learning. This is followed by a discussion of how AI can now be purchased and used via cloud services. The chapter concludes by considering the difficult question of whether AI can be creative and by considering security concerns related to AI.*

### THE HISTORY OF ARTIFICIAL INTELLIGENCE

For many centuries, there have been legends about golems in Europe. The legend holds that these strong clay beasts protect the Jews from aggression and pogroms, and that they are animated by spells, devoid of feelings and scrupulousness, and listen only to the commands of their master. This monstrosity is mainly associated with the Czech Prague. It was there that the Jews were to build this monster, where it was to take to the streets and spread destruction. However, the legend holds that Golems are not intelligent and that the command to perform a task is done literally because, by nature, they are perfectly obedient.

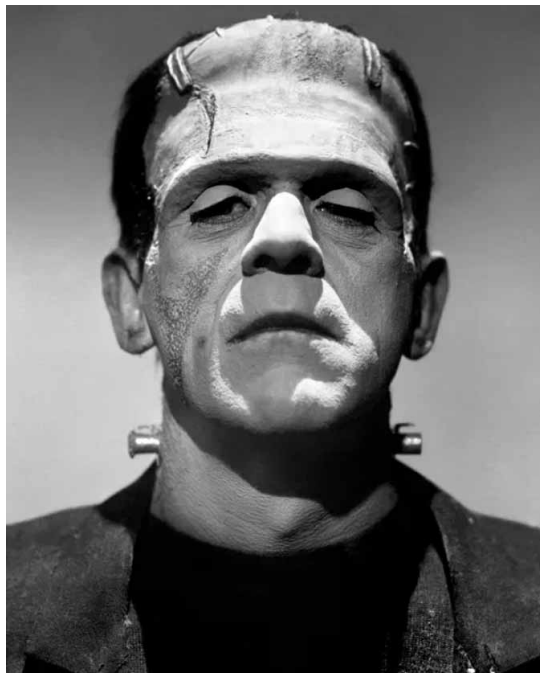
In the 19<sup>th</sup> century, this legend inspired the superhuman element in the novel *Frankenstein: Or, the Modern Prometheus* (1818), invented by Mary Shelley (1797–1851) with her great imagination (abusing drugs on a vacation on Lake Geneva in the company of Lord Byron “king of life” and others). In the novel, the Italian-Swiss scientist Victor Frankenstein (born in Naples, Italy) gains insight into the creation of life after dissecting living beings and studying their chemical processes. He then gives life to

**Development Trends in Robotization and Artificial Intelligence**

*Figure 1. The concept of a super-strong Golem, albeit without its own opinion (Photo: Wikipedia.org)*



*Figure 2. Frankenstein's superhuman creature that destroyed itself (Photo: TCD/VP/LMKMEDIA)*



23 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/development-trends-in-robotization-and-artificial-intelligence/286879](http://www.igi-global.com/chapter/development-trends-in-robotization-and-artificial-intelligence/286879)

## Related Content

---

### Phraseology in English as an Academic Lingua Franca: A Corpus-Based Study of Prepositional Verbs in Writing by Chinese, American, and British Students

Meilin Chen (2017). *Handbook of Research on Individualism and Identity in the Globalized Digital Age* (pp. 478-499).

[www.irma-international.org/chapter/phraseology-in-english-as-an-academic-lingua-franca/162967](http://www.irma-international.org/chapter/phraseology-in-english-as-an-academic-lingua-franca/162967)

### A Proposal for UTAUT Model Extension in the Virtual Learning Environments use as Presential Learning Support Context

Ivo Pedro Gonzalez Juniorand Ernani Marques dos Santos (2017). *International Journal of Technology and Human Interaction* (pp. 33-46).

[www.irma-international.org/article/a-proposal-for-utaut-model-extension-in-the-virtual-learning-environments-use-as-presential-learning-support-context/181659](http://www.irma-international.org/article/a-proposal-for-utaut-model-extension-in-the-virtual-learning-environments-use-as-presential-learning-support-context/181659)

### Non-Invasive Monitoring of Glucose Level Changes Utilizing a mm-Wave Radar System

George Shaker, Karly Smith, Ala Eldin Omer, Shuo Liu, Clement Csech, Udeshaya Wadhwa, Safieddin Safavi-Naeiniand Richard Hughson (2018). *International Journal of Mobile Human Computer Interaction* (pp. 10-29).

[www.irma-international.org/article/non-invasive-monitoring-of-glucose-level-changes-utilizing-a-mm-wave-radar-system/207700](http://www.irma-international.org/article/non-invasive-monitoring-of-glucose-level-changes-utilizing-a-mm-wave-radar-system/207700)

### Factors Determining the Continued Intention to Use Mobile Money Transfer Services (MMTS) Among University Students in Ghana

Isaac Kofi Mensah, Luo Chuanyongand Guohua Zeng (2020). *International Journal of Mobile Human Computer Interaction* (pp. 1-21).

[www.irma-international.org/article/factors-determining-the-continued-intention-to-use-mobile-money-transfer-services-mmts-among-university-students-in-ghana/243729](http://www.irma-international.org/article/factors-determining-the-continued-intention-to-use-mobile-money-transfer-services-mmts-among-university-students-in-ghana/243729)

### ICT Adoption by Malaysian Parliamentarians for Communication with the Citizens: Extended TAM with Moderating Effect of Trust in Electronic System

(2015). *ICT Adoption and Application in the Malaysian Public Sector* (pp. 185-204).

[www.irma-international.org/chapter/ict-adoption-by-malaysian-parliamentarians-for-communication-with-the-citizens/120889](http://www.irma-international.org/chapter/ict-adoption-by-malaysian-parliamentarians-for-communication-with-the-citizens/120889)