



## Thoughtful

### Industry 4.0 and the Importance of Human Capital in Organizations

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**Marcos de Oliveira Moraes**

Santo Amaro University (UNISA)

<https://orcid.org/0000-0002-5981-4725>

[marcostecnologia2001@gmail.com](mailto:marcostecnologia2001@gmail.com)

#### 1. Introduction

For centuries the world has gone through several industrial revolutions, the first of which took place in 1784 with the creation of the steam engine and the mechanical loom. In 1870 in the second industrial revolution the emphasis was on the discovery of electricity, mass production and the oil industry. The third industrial revolution in 1969 was based on automation, advances in electronics and CAD (Computer Aided Design), CAM (Computer Aided Manufacturing) systems. The fourth industrial revolution pointed out from 2011 deals with elements such as the internet of things and advanced manufacturing, among others (Bahrin et al., 2016).

With this we can see two points of extreme relevance in the context of industrial revolutions. With each industrial revolution, the world economy is affected, causing effects that will only be possible to measure in the medium and long term, since in the short term, suitability for companies becomes the watchword for those who wish to remain in the market every day. increasingly competitive. Business models and technological industrial solutions tend to generate a positive global impact (Chien et al., 2020). Another point to be noted is the training of people who are directly or indirectly affected by the advancement of technology in the most diverse segments of industry or



services. Over the years, markets regardless of their segment must be ready for technological and social changes (Imran et al., 2018).

It is notorious that the industrial revolutions are happening in a shorter period of time and with greater speed, which forces organizations to be more efficient and effective in their processes and with that promote the search for more qualified people, increasing the level of demand for professional performance. , where the agile decision-making process allows for greater adaptability of the company in the face of the unexpected (Aneja et al., 2019).

In the quest to reduce waste, the innovative process stands out in organizations that invest in their employees mainly through training, as well as attractive salaries and benefits. Companies that invest in qualification and research and development tend to be more profitable, in addition to obtaining a better projection with their customers, as well as prospecting new and even better markets (Paschek et al., 2019) .

Human capital is still the greatest asset that organizations have, since to provide it with the entire process of innovation and management of acquired knowledge, people still promote the difference. As much as you have production software and also that help in decision making, the existing know-how in people's intellectual capital is very relevant.

Combining new technologies with existing ones and being able to obtain an increasingly satisfactory result will be imperative for companies to remain in the market in which they operate, since competition is increasing every day, also becoming more aggressive, not allowing any kind of error no matter how small it may be. Organizational competitiveness had to be dealt with exponentially in companies, so that they can obtain financial resources to maintain themselves and invest in new areas as well as in new knowledge.

Through the above, one should seek an interface and interaction between existing organizational processes as well as those to come, since both new evolutions and



industrial revolutions are increasingly close, which allows us to participate in these events, the link between people development and new technologies is the sharing of organizational knowledge, where industry 4.0 starts to play a relevant role in the dissemination of this knowledge, which will enable the development of competitive advantages not only for organizations but also for all stakeholders. involved in the change process.

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