The definition of digital transformation (DT) is not consensual among the stakeholders involved in this issue, particularly in organizations, which leads to several perspectives of what it really means. These perspectives range from a focus on technology, to digital customer engagement, to new digital business models and so one. The lack of clarity often results in piecemeal initiatives, missed opportunities and false starts in the organization digitalization.

From the organizations’ point of view, DT can be seen as a deep and accelerating transformation with regard processes, activities, competencies and models, in order to take advantage of the changes and opportunities offered by the inclusion of digital technologies into an organization. In this context, the adoption of technology-based change focus on four technology pillars:

(1) cloud,
(2) mobile,
(3) social, and
(4) big data.

DT came on the bases of these four pillars to place a business context over the technologies and to take advantage of them to support innovation. However, this advantage is only possible if the information systems of the organizations are aligned with these new technologies.

On the other hand, Information systems (IS) are at the core of every business and cut across almost all aspects of organizational life. IS and technologies are used as support to all aspects of organizational functions and activities.

In accordance with the stated previously, it could be claimed that to the DT be successful in an organization it is required an adaptation/alteration of the IS. The IS transformation must accommodate de DT and must be aligned with the business in order to create value for the organization/business on one hand. On the other hand, the SI aligned with DT contributes to organizations more agile.

Organizational agility could be defined as the capability of an organization to rapidly change or adapt in response to changes in the market. A high degree of organizational agility can help an organization to react successfully to the emergence of new competitors, the development of new industry-changing technologies or sudden shifts in overall market conditions. Organizational agility helps balancing speed of response, communication and information sharing with thoughtful coordination and long-term
scalability. In this context, organizational agility is the organization capacity to incorporate new elements such as innovations or improvements in order to enhance its performance.
In this context, the teaching of IS both at the higher level and at the training education must be urgently aligned with these transformations. In order to future IS professionals learn to solve problems with great agility. Such agility is also required to the organizations. So, in this paper it is analyzed a curriculum of IS course in the high education and it is proposed some extensions and adjustments to in order the new challenges of DT in organizations.

keywords: digital organization, information systems, information systems curriculum, agility.