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**THE “SILENT” WAR FOR FUTURE OF THE TOURISM & TRAVEL INDUSTRY,
THE COMPETITION OF THE ARTIFICIAL VERSUS THE NATURAL INTELLIGENCE**

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Abstract

Annually, the tour industry increases its income, and with that comes up a main objective which interests everyone - the human resources problem. The competitive environment puts everyone up in front of need for actions of satisfying the primary necessities of the common user. All kinds of industries and economical sectors are paying attention to the IT management, which is in hyper dynamic bloom. They keep coming with innovations that to the common human nature still seem like science fiction. The automation was the creation of the 20th century, which has transformed into daily routine to us, and the roboticization is the creation of the 21st century – artificial intelligence is already a fact. The science is exponentially developing, and now there is a visible threat in the face of the human labor.

Keywords

Technological innovations – Tour industry – Artificial intelligence

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PH. D. (C) STEFKA HRISTOVA / PH. D. MILENA STOYANOVA

Introduction

Tourism for another year notes a stable positive tendency of growth in travels on a global scale. For 7 consecutive years, the branch marks a growth as the international arrivals are 1,32 million (+7%) from which 671 million are from Europe or 51% of the market (+8%). In the period to 2030, the World Tourism Organization foresees a slower growth of 744 tourists per year (+1.8%) which is about 41% of the global market. The empiric indicators confirm the steady global development of tourism. With each year, Europe increases its revenues and profits from the tourist branch but also meets great hardships and problems with human resources¹.

The bigger competitiveness in the branch makes executive managers look for the cooperation and the support of IT specialists. The innovations that were introduced were science fiction in the 80s of the 20th century, but today in the 21st century, they are reality. The automatized and robotic technologies are a constant part of our daily lives and they are a necessity at the workplace. In the last years, it has been widely talked about artificial intelligence but the question is if society is ready to embrace this revolutionary progress in the informational and the digital sciences. That is important, because every day, humanity is getting one step closer to the future in which machines and people will live in symbiosis.

Findings

The initial concept for incorporating robotized technology in Global economics is for the sake of easing people’s working activities. Through the year of economical upsurge, Europe is in a demographic crisis and human resources are scarce. That changes the initial idea and makes Homo sapiens face a new challenge.

Until not long ago, we thought of robots as of a pile of iron. The new generations are the so-called chat-bots and avatars with artificial intelligence (AI). The possibilities for using them in the tourist industry are endless. It’s been a few years since the chat bot is successfully being introduced in the tourist branch. Technologies are meant to change our travels and to satisfy our even higher requirements. In 2015 in Japan, the first robotized hotel in the world - “Henn na Hotel”, was opened². At the beginning of tourist seasons 2019, an avatar receptionist was introduced and incorporated for the first time in Bulgaria³.

The world is going through a fourth industrial revolution. The technological revolution will lead to and will cause fundamental changes in our lifestyles and in our work. This metamorphosis will be something that people have never seen before. What could humanity win from this revolution – potential to increase global revenues and to improve the quality of life of the population? In future, innovations in technology will lead to cheaper transportation and communication, the delivery chains will become more effective and trade expenses will go down. That will open new markets and will stimulate economic growth.

Are artificial intelligence and chat-bots an advantage or a factor for disquiet for humanity?

Preconditions for the competitiveness of the chat bot and the avatar in tourism:

¹ En http://www.europarl.europa.eu/ftu/pdf/bg/FTU_3.4.12.pdf Obtenido el 22 de mayo de 2020.

² En <https://www.kaldata.com> Obtenido el 23 de julio de 2020.

³ En <http://bgtourism.bg/210624019> Obtenido el 26 de julio de 2020.

- The chat-bot offers numerous advantages and conveniences not only to the clients but also to the branch;
- It answers the clients right away, in a correct and professional manner – in gives the branch full control over the quality and the contents of the information given;
- It speaks to the clients in one or more languages;
- It can talk with many clients at the same time;
- It saves the working staff working hours 24/7/365;
- It lessens the expenses for communication with the clients by saving up resources and people’s time;
- It helps the tourist branch to optimize the work of the staff with more tasks completed for the same time;
- It’s easy to use;
- It increases the clients’ satisfaction – they receive information or a service whenever they ask for it in a convenient format without being dependent on their location, work place or the time without language barriers;
- It gives new possibilities for marketing and sales – as a good member of the working team, the chat-bot is always ready to recommend the client a suitable service or product.

In 2017, the chat-bot was one of the top technological innovations, which was talked about everywhere. After October, 26 the same year, humanity saw and realized the high-technological achievements of the computer specialists. On that day, there was a unique event in Sofia where the humanoid robot was presented. Its creator is Doctor David Henson, who had the idea to give life to an artificial intelligence that is more intelligent than people and improves itself with time. Another example for the endless human desires is the development of an avatar from the Russian concern “Luka – start-up” through which we will be able to communicate with relatives that aren’t alive anymore.

Human weaknesses and fears can motivate us and show us the unlimited capabilities of natural intelligence – the Homo sapiens. This statement is proven by the Russian multi-millionaire in the field of cyber technology, Dmitriy Itskov. He invested all his fortune in the development of artificial intelligence – a humanoid avatar through which people can have an eternal life without feeling tired or getting sick or old. The project has been split into four phases with a deadline 2045⁴.

Automatization and robotization aren’t a new idea but breakthrough in artificial intelligence and mechanical training gives the base for quality changes in client service in the digital environment. Awareness and the cognitive abilities of machines reveal endless possibilities for companies to fully rethink when and what to sell, what kind of staff is needed and how to manage a business, how to predict and surpass the expectations of the consumers.

A factor for disquiet is that automatization of production will leave many people jobless.

According to the Organization for Economic Cooperation and development (OECD), almost half of the working places will either disappear, or will radically change in the next two decades.

⁴ En <https://habr.com/ru/post/391651> Obtenido el 22 de agosto de 2020.

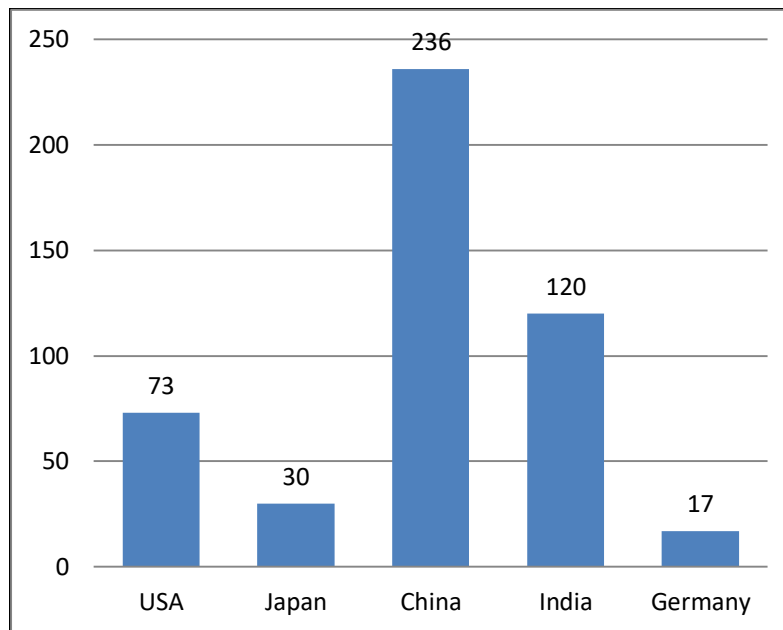


Figure 1
Loss of jobs (number in millions)
Source: Authors' calculations

Leading economies such as the USA will lose over 73 million, China – 236 million, followed by India with 120 million, Japan – 30 million and Germany – 17 million. In the 10 largest economies in the world, 107 work positions will disappear⁵.

According to data by the research center Bloomberg, until 2020 over 5 million work positions will be closed. The professions that will mostly be affected in the third section are transportation, production and trade. In the field of services, this growth is expected to reach 7 million to 2030.

Because of the critical world data, from “the mass robotization” and the need for the current report, a sample from a non-government survey is presented.

35 people, aged 25 to 65, were interviewed, with the predominant gender being women. Respondents were asked about the attitude towards: implementation, service and applicability and cooperation with artificial intelligence in the new generation of tourist platforms. The data from the survey show that the applicability finds the highest share in the field of tour operator and travel agency activities, for the implementation of web platforms in the hotel industry, the attitude is positive. In the service area, as a colleague and guest representative, respondents identify a platform.

The aim is the attitudes and the views about the compatibility of artificial intelligence to be pointed out on a micro-level. People from all ages, genders and social statuses participated in the survey. The survey was conducted on the territory of Varna district. It was conducted among groups of experts, managers and employees which are also consumers of tourist services. 35 people were interviewed from January to April 2020.

⁵ En <https://www.oecd.org> Obtenido el 07 de Agosto de 2020.

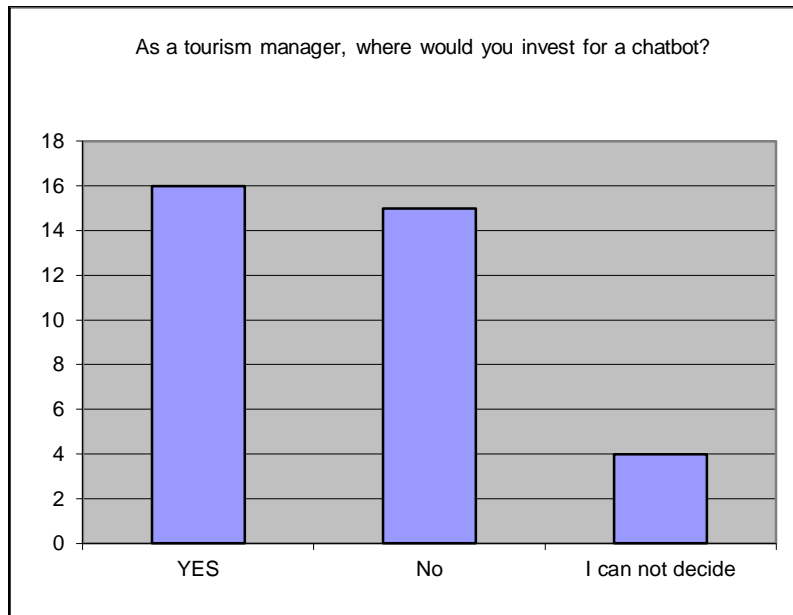


Figure 2
Attitudes towards the applicability of robotics
Source: Authors' calculations

Figure 2 shows tendencies towards changes in the direction of introducing and developing innovative technologies. The alluring idea for the management team – 24/7/365 is undoubtedly a favorite in the working process.

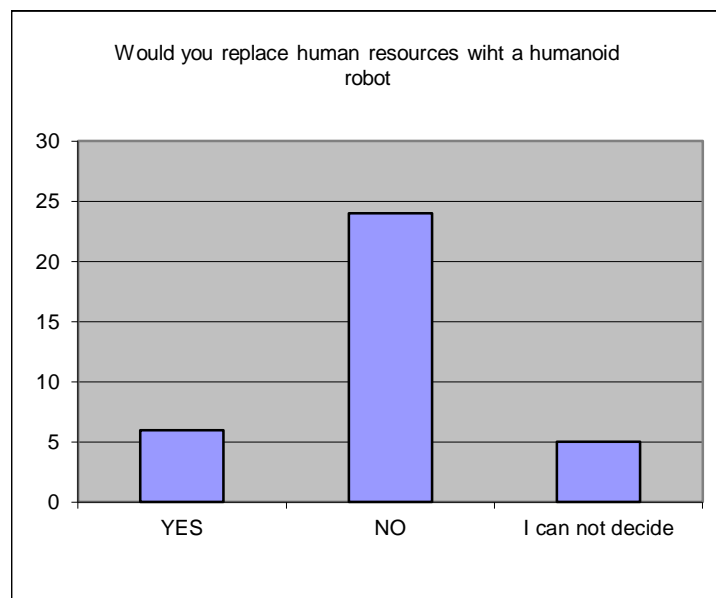


Figure 3
Introducing AI in the field of services
Source: Authors' calculations

Figure 3 reveals clear paths for the applicability of robotization as a help for the service staff. According to the people inquired, on a local level in near future, there isn't a threat of a mass introduction of robotization.

In these circumstances, Figure 4 represents the introduction, the realization and the exploitation of the IT innovations in tourism. The biggest share of the contribution to introducing new technologies is for: marketing and advertisement, tourist and travel agencies, reservation and informational systems, hotel households and restaurants that belong to hotels that provide food.

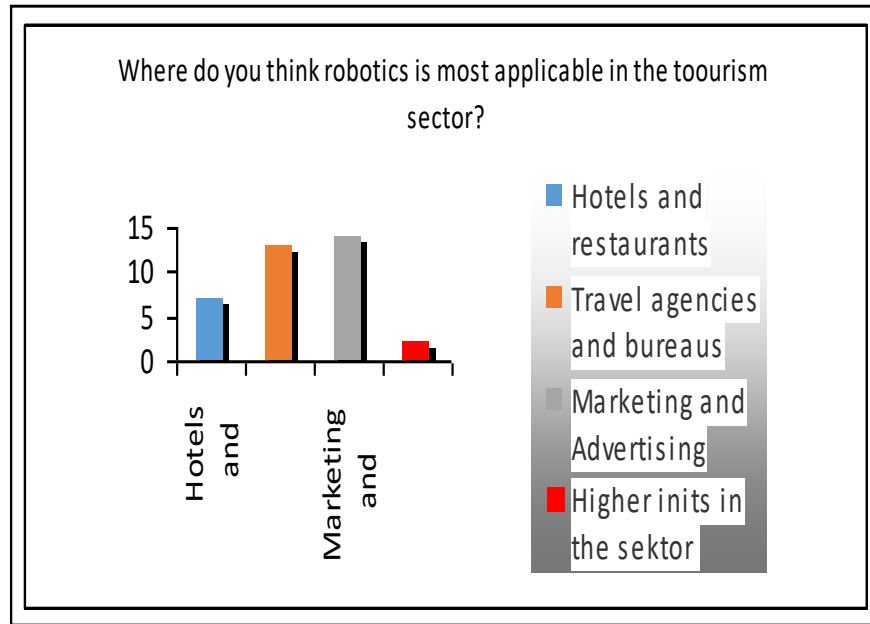


Figure 4
The robotization in tourist branches
Source: Authors' calculations

Conclusion

The time when machines will surpass people in almost every task and will do the most part of the activities people do is not too far away. The positions that will remain for humans are the ones that require higher education and making decisions – managers, engineers, scientists and teachers. It's still not clear how we will go through this fourth stage. Humanity should prepare to participate in this process.

All the parties interested from the governmental, the public and the private sector as well as the academic circles and the civil society. Robots will reach a level of development as high as us – Homo sapiens allow them.

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