

reach the aircraft. The usable distance is limited by the walkway speed, which usually does not exceed 1.25 m.s. The length of walkway is also limited by the fact that it is only possible to get off of the walkway at its ends. Therefore several sections of walkways following each other have to be installed in the corridors to the gates. For transportation of passengers, flight crew, employees and visitors between individual buildings over longer distances at the airport: between terminal buildings, between a central terminal and satellites or between the terminal building and runway station or parking lots, the use of walkways is not appropriate, because of their slow speed. Shuttle buses are the most common solution but, as the demand becomes greater, it becomes appropriate to use an automated shuttle type of people mover either on one track or on parallel tracks. The first shuttle type of people mover in Europe was installed at Gatwick airport (Great Britain).

The reliability of people movers is usually higher than escalators or movable walkways, and are less vulnerable than buses to labour disputes. However, most failures bring the whole system to a halt, while a bus can easily be replaced. In the transportation peak the people mover operates at set intervals. Outside the peak it may be possible to call the vehicle by a pushbutton as with an elevator. There are many different types of constructions and drives. Some companies use fully automated carriages on tires with electrical drive, while the OTIS company uses its own technology, which is used for elevators, the carriages being driven by a steel rope.

*Scientific supervisor: Budko L.V.,
Assistant Professor*

UDC 004.042 (043.2)

Valchun I.O.

National Aviation University, Kyiv

THE IMPORTANCE OF INFORMATION AND ITS FUTURE

Though being widely used, Big data still have no exact definition. It is impossible to draw a definite line whether it is 10 TB or 10 MB. Yet, there exists a state opinion that big data are the combination of technologies which are to perform three main operations: to operate bigger than usual amounts of data, to process fast-coming data in large quantities, to operate both well-structured and badly-structured data. The typical example of big data is the information coming from various physical experimental constructions, for example from the Large Handroid Collider, which produces a great number of data and does it constantly while the scientists solve a lot of tasks with their help.

The appearance of big data in public is related to the fact that those data concern practically all people, not only the scientific community. Big data entered the public sphere of technologies when it concerned a quite exact number – the

number of the Earth inhabitants. That is 7 billion people congregated on social sites and in other projects which can count people. YouTube, Facebook, VKontakte are the networks, where there are billions of people and the number of operations which they perform simultaneously is enormous.

A lot of developers are used to working with static objects and to think by means of the categories of state. If to speak about the big data, the paradigm is different. You have to work with an endless number of data and it turns out to be an interesting challenge. It covers more and more spheres and the importance of big data is increasing every day. PCs have changed America, the Internet has changed the world, but the big data will transform the world. They will have been ruling the development of the technologies for the next 100 years.

Wherever you are, computers watch you and fix all the information about your activities, foremost pointing out what you watch, read, examine or buy. Why have we got into such situation and what is going to happen next? Of course, technologies continue to broaden their horizons, but this time, new achievements like self-driven cars, universal translators and even computers, working out other computers will appear not with the help of human mind but with the help of the machines themselves. And this is due to the big data. By 1998 the general number of websites had achieved 30 million, while nowadays there are more than 2 billion of them. Every web page contains hundreds and thousands of words, images and information blocks. To find something in the Net you need to surf the whole Internet. That is what we mean by big data.

There are many spheres of activities, which have made the most use of the knowledge of big data: large banks, governmental structures, police force, politics, where forecasting models are used to target activities before elections, etc. The spheres of using the big data can hardly be enumerated. They cover the spheres from terrorism to education, and, of course, the big data are actively used in advertising.

The world quantity of digital information is growing every day. According to the IBS company by 2003 the world, had accumulated 5 EB of data (1 EB equals 1 bln GB). By 2008, this number had grown up to 0.18 ZB (1 ZB is 1024 EB), by 2011 – up to 1.76 ZB, by 2013 – up to 4.4 ZB. In my 2015 the total number of data achieved 6.5 ZB. It is believed that by 2020, the humanity will have accumulated up to 40-44 ZB of information. Shall we be able to cope with it? According to IBS, in 2013 only 1.5 % of a collected data was of some informational value.

Fortunately, the world will be saved by the technologies processing big data. They allow people to cover and comprehend something incomprehensive and make use of it. The analysis of big data makes it possible to see hidden patterns which are invisible for the limited human perception. It enables us with unprecedented opportunities to optimize all spheres of our life, in particular government, medicine, TV communication, finance, transport, production and etc.

*Scientific supervisor: Shulga T.V.,
Senior Lecturer*