INFORMATION TECHNOLOGY IN ECONOMY

Cherenkov A.A., Flyashinskiy D.I.
Scientific advisor senior lecturer V.E. Mironova
National research Tomsk polytechnic university, Tomsk, Russia

The main purpose of the presented work can be defined as the description of the interaction of information technology with the economy.

In order to analyze aspect under study, the following tasks should be completed:

1) To describe briefly the sectors of the modern economy;

2) To find out what management information systems (MIS) are;

3) To identify and describe the tasks of MIS in the economy.

The economy is considered to be the economic activity related to social community and the totality of relations in the system of production, exchange, distribution, and consumption of both material and intangible goods.

At the moment four sectors of the economy can be distinguished.

1) The first sector includes various industries for the raw materials extraction and processing;

2) The secondary sector consumes recycling industry;

3) The tertiary sector (service sector);

4) The quaternary sector, associated not with the production of material goods, but with the methods of their production and the adoption of various management decisions, in some sources this sector is called the "knowledge economy".

In today's world there is a tendency to develop the representation of data in digital form which will become one of the factors of production in most areas of economic activity, business and management. Information technologies are used for operational processing, sorting and selection of information, implementation of operational communications in the workplace. Summarizing, people strive to make various management information systems (MIS) - a set of information, economic and mathematical models, various technical means and specialists to process and transform various kinds of information and make decisions related to business management, company or even country.

MIS can be divided into the following groups [3]:

- *Material Requirements Planning* (MRP/MRP II);

- Supervisory Control And Data Acquisition (SCADA);

- Laboratory Information Management System (LIMS);

- *Enterprise Asset Management* (EAM);

- *Human Resource Management* (HRM);

- Capacity Resource Planning (CRP);

- Customer relationship management (CRM), etc.

To demonstrate the importance of management information systems, the following table is provided to describe these systems according to various criteria.

Table

Description of MIS according to different criteria

Classification sign	Solutions and types of various tasks.		
Tasks at the state level.	Federal	Regional	Municipal
	Processing information received from the regions	Automation of management of administrative-territorial objects	Information service of local governments
Application area	Industry	Cash transactions, agriculture	The organization of transport networks, the organization of the subway and so on.
Types of management processes	Control of the process	Management in terms of technological and organizational processes	Management in the sphere of organizing the process
	Workflows of the flexible character	A complex set of tasks for the control and management of technological processes, companies and enterprises	Automation of the main managerial personnel functions in various areas of production

The presented classification is far from complete, but even in this part, the main tasks of MIS and their derivatives can be distinguished:

1) Consolidation of economic information;

2) Information protection (for example, customer information or financial reports).

3) Creation of electronic timesheets (to track the activities of employees in any enterprise);

4) The development of electronic transaction processing systems.

Moreover, information technology is used to model any process without the cost of material resources. It is especially true in mechanical engineering and the military industry.

Summarizing all aspects, we can single out the following tasks of information technology in the sphere of the economy [3]:

1) Financial management;
2) Management of material resources;
3) Cost management;
4) Personnel management;
5) Technological planning;
6) Customer relationship management;
7) Supply management;
8) Business analytics.

Information technology allows people to apply methods to optimize various processes. The development of information systems for computer processing, accumulation and storage of information creates a new information base that can be applied in the nearest future in order to develop this sector of the economy or even to create a new sector with goals and objectives that are implicit for us.

References

1. Brooks, F.F. The Mythical Man-Month [Text] / F. F. Brooks. - London: Addison-Wesley, 1982. - 368 p.
2. Juferova, N. Ju. Informacionnye tehnologii v jekonomike: uchebnoe posobie (Information technology in economics: textbook) [Text] / N. Ju. Juferova. — Krasnoyarsk: Reshetnev Siberian State University of Science and Technology, 2019. — 86 p.
3. Kolomejchenko, A. S. Informacionnye tehnologii: uchebnoe posobie dlja vuzov (Information technology: textbook for universities) [Text] / A. S. Kolomejchenko, N. V. Pol'shakova, O. V. Cheha. — Second edition — Saint Petersburg: Lan', 2021. — 212 p.
4. Lopatin, V. M. Informatika dlja inzhenerov: uchebnoe posobie dlja vuzov (Informatics for engineers: textbook for universities) [Text] / V. M. Lopatin. — Second edition — Saint Petersburg: Lan', 2021. — 172 p.

THE PROBLEMS OF LOCALIZATION IN VIDEOGAMES BASED ON «UNCHARTED» GAME SERIES: THE PERCEPTION EFFECT AS A NEUROLINGUISTICS ASPECTS

Istigecheva A.V.
Scientific advisor senior lecturer L.I. Asadullina
National Research Tomsk Polytechnic University

The article focuses on the problems of the video games adaptation from one language to another, which is called localization and considers the peculiarities of the localization of such aspects of video games as the game title, the wordplay, direct addressing, context dependence, slang usage and some cultural features. The analysis is based on the series of action-adventure «Uncharted» video game developed by Naughty Dog and published by Sony Computer Entertainment for the Playstation consoles [1].

Key words: localization, syntax, semantics, morphology, context, blind translation, culture.

Localization of texts is not only a professional translation, but also technical, linguistic and even cultural adaptation of texts to the national characteristics of a particular country, region or ethnic group, as well as the language. The process of localizing a computer game very often occurs simultaneously with its creation in the original language, which helps to bring the game to the market of several countries at once. The purpose of the article is to reveal the lapses in the localization of the series of «Uncharted» video game with a special attention to the neurolinguistic theory, as well as, to offer the solutions.

The main objectives have been formulated in the following way: to analyze methods and nature of localization, to contrast English and Russian versions of the game, to reveal the problems in game localization, to offer the solutions to the problems found. Video game localization is the special preparation of video game software and hardware for the market in a new region or even a country. In spite of the fact that text translation can be considered as a significant part of localization, the whole process implies any changes in a game.

The main task of localization is creation of an enjoyable, non-confusing play experience for the user by paying heed to their unique cultural context while being faithful to the source material [6].

The following aspects are supposed to cause the most difficulties at the translation stage: proper names, cultural references, word play, untranslatable phrases and specific word combinations (collocations, slang, set expressions).

To study the difficulties related to the aspects above we used such methods as researching of resources (including videos with playing process, articles), scanning whole Russian and original versions, text analysis.

Neurolinguistics and psycholinguistics take an essential part within this research work. According to Tatiana Chernigovskaya's interpretation, neurolinguistics is a section of psycholinguistics, however, it has more specific methodology and the object description. Neurolinguistics regards the connection between the speech, language and the brain activity. It studies the features of translation as well.

One of the most interesting examples can be shown in the Tolkien's work «The Lord of the Rings: The Fellowship of the Ring»:

Original: «Boromir smiled».

1. A. Kistyakovsky, V. Muravyov: «И Боромир, превозмогая смерть, улыбнулся».
2. N. Grigorieva, V. Grushetsky: «Тень улыбки промелькнула на бледном, без кровинки, лице Боромира».
3. M. Kamenkovich, V. Karrik: «Уста Боромира тронула слабая улыбка».

This fragment shows how different the mentality, the style and the reader's perception are.