

Current Trends in the Development of Computer and Information Technologies

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Annotation: From the beginning of its inception to the present, IT has been the industry with the highest rate of development. This is reflected in the constant increase in quantitative and qualitative indicators of existing methods and tools, as well as in the emergence of fundamentally new concepts and techniques. What was considered an innovation yesterday is becoming obsolete today. Therefore, it is not advisable to talk about the numerical values of any characteristics in the IT field. However, it makes sense to analyze business needs and compare them with trends in the development of the IT industry as a whole.

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So, the main purpose of IT is the practical solution of applied scientific and production tasks in various industries, as well as in social and economic activities. The need for automated processing of more data while reducing time and labor resources increases the degree of IT implementation in human life. In this regard, the automation of individual production and then business processes was transformed into the idea of organizing a single information space (UIP) [2]. The EIP is a set of IT solutions for solving a variety of related corporate and industry tasks within a single methodological platform. The EIP concept also involves the integration of business objects (data) between various business processes [1-4].

The EIP is designed for team interaction of geographically distributed participants. This leads to the following trend in IT development: the transition from client-server corporate IS deployed on a local network to web-platform solutions [3]. An additional advantage of web-based products is their cross-platform functionality - the same functioning on different workstations, regardless of their hardware and operating system. In addition, it reduces the requirements for technical support.

Today, corporate and industry web portals are not a static set of informative data, but are full-fledged collaboration tools for many users. It should also be noted the visual change in the user interface of such Internet resources: integration with social networks, modular-block design of data representation, laconic minimalism of color schemes, etc.

The mutual integration of various IS and web portals is ensured through the use of unified unified software and algorithmic solutions presented in the form of separate plug-in components. Such modular flexibility of technologies increases the degree of their application and the speed of development of new products based on them.

The steady trend of corporate IP migration to the web version is also reflected in the concept of SaaS - Software as a Service - software for rent [2]. Often, hosting an IP on rented cloud servers is cheaper than deploying it on a local corporate network.

The widespread use of mobile devices as a business tool has served as an incentive for the emergence of mobile versions (applications) of various IS. At the same time, the issues of information security are becoming particularly relevant. In particular, the creation of corporate and public "clouds" required their protection of confidential data and prevention of their leaks, for example with the help of specialized DLP systems [4-5]. This, in turn, led to the emergence of "cloud" information security services (security as a service - SECaaS) [1, 2, 3].

It should also be noted the direction towards increasing the intellectual level of IS: adaptive algorithms for data analysis are introduced into them. Based on this, changes are automatically made to certain parameters of the IP, recommendations are formed for the user, facilitating managerial decision-making. One of the most striking examples of such an IP is software products for exchange trading, online store systems, etc. Thus, the mathematical and algorithmic support of the IP is complicated in order to simplify the user's work.

In addition, in addition to the technical direction of the development of modern IT, it should also be noted the increase in their socio-humanitarian component. This is reflected not only in the emergence of IP for social and humanitarian needs, but also in an increase in the level of right-wing culture in the IT field. For example, legal aspects of the use of electronic signatures, copyrights, information security issues, etc. [1-2].

So, summing up the above, the following can be noted as current trends in the development of IT:

- reduction in the cost of technical means with an increase in the cost of information, algorithmic and software IS;
- expanding the functionality of corporate and industry Internet resources;
- socialization of corporate and industry Internet resources (integration with social networks);
- organization of EIP for corporate and industry needs [62];
- transition from local intra-corporate IP to web-based solutions based on cloud technologies [2];
- outsourcing of hardware and software resources for the deployment of corporate IS;
- using web versions of corporate IS deployed on third-party servers - SaaS solutions;
- development and distribution of mobile applications;
- end-to-end integration between different IS at the level of business processes and business objects [4];
- unification of technical and software-algorithmic solutions for the purpose of their subsequent replication and use in the form of plug-ins, templates, etc. [1];
- raising the level of legal culture: the emergence of new and modernization of existing legal acts regulating the use of IT.

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