The Dental Clinic Computerization

Roksolana Havryliv, Nataliia Kunanets

Lviv Polytechnic National University, Lviv, Ukraine

Computerization has long been entered and firmly held in our lives. It accompanies the various spheres of human professional activity, helping to expedite, simplify and structure the work to be performed. In recent years, rapidly began to develop small and medium businesses. And expansion of business requires timely precise control, which can provide information processes. Over the last decades, technologies became available that deny the need for time-consuming participation in the traditional activities of person. In early 2019, "The Economist" has published an article entitled "the Future of jobs: the wave, push" [1]. The article focused on the role played by technological innovations in the destruction of jobs and its impact on long-term employment. Dentists are mostly career type sufficiently resistant to the effect of information, at least in the short term. Although we already see the effects of automation and AI in the field of dentistry, from 3D manufacturing, CADCAM and retail hygiene of the oral cavity. Computerization has fundamentally changed the nature of organizations. Task managers will determine where information technology can transform their organizations, and then, given the cost of replacement of human labor by machines, to determine the complexity of adapting business processes to the changed workplace. Most of the benefits may not cause a reduction of expenses on labor and increasing productivity by reducing errors, increasing productivity and improving the quality, safety and speed. Modern dental clinic is open 7 days a week, providing all types of therapeutic, diagnostic and Advisory services. Despite increased competition, the workflows in this market is characterized by many specific features. So, insurance companies, banks that give out loans for treatment and prosthetics requiring specialized reporting [2]. However, patients want to receive a report on the treatment of indicating the precise amounts, as well as documents for tax for compensation for the funds spent. The management of the clinic should "see" your business as a whole, to identify different type of problem to track abuse,

to prevent shortage of materials, etc. In such a situation, the dental clinic can no longer afford to keep accounts upon the books, files, MS Excel, as it was done before. Developed the project of information system for dentistry is focused on the implementation of information systems in the management processes of healthcare services, mostly to support specific functions, such as maintaining patients ' files, schedules, techniques, generating a report on services provided and maintain records of payments from insurance companies, financial and statistical reports, etc. This functionality is determined by the history of the development of the dental IP and is the base for any of such systems, and, of course, useful and demanded by the customers [3].

One of the major problems existing in medical institutions working in the framework of health insurance is the introduction of IP in the activities of the registry. In the reception is the first contact of the patient with clinic representatives, and often of its work depends on patient satisfaction with the quality of the treatment process.

More recently, all use of offline services. And now in the Internet space without any problems, you can find a variety of information and resources and to choose the most necessary. This decision can be called a dynamic process that is not just subtly reacts to changes in customer behavior, but also seeks to predict.

The introduction of IC allows employees the dental office to expedite the process, automate search. The information system provides a perfectly correct filling of the cards. However, all of this would be possible without investment. In particular, a significant portion of the expenses is a high-tech equipment and highly qualified specialists. After all, for quick and quality implementation of product need encouragement for developers and a platform for its implementation.

References

1. The Future Of Jobs: The Onrushing Wave. [Elektr.resource]: access Mode. : https://www.businessinsider.com/the-future-of-jobs-theonrushing-wave.
2. More than anything, about dentistry. http://www.stom33.ru/content/view/456/49/.
3. Control automation. http://www.krconsult.org/service/automation/
4. Bakumenko, N., Strilets, V., Ugryumov, M.: Application of the C-Means Fuzzy Clustering Method for the Patient's State Recognition Problems in the Medical Monitoring System. In: Computational linguistics and intelligent systems, COLINS, 218-227. (2019)
5. Bakurova, A., Tereschenko, E., Filei, Y., Pasichnyk, M., Ropalo, H.: Modeling of Decision Making Ontology. In: Computational linguistics and intelligent systems, COLINS, 197-207. (2019)
6. Perkhach, RY., Shyika, Y.: Frequency Dictionaries to the Instructions to Medical Products. In: Computational linguistics and intelligent systems, COLINS, 173-183. (2019)
7. Hamon, T.: Biomedical text mining. In: 1st International Conference Computational Linguistics and Intelligent Systems, COLINS, http://colins.in.ua/wp-content/uploads/2017/04/2017COLINS-THAMON-keynote.pdf. (2017)
8. Vysotska, V., Lytvyn, V., Burov, Y., Gozhyj, A., Makara, S.: The consolidated information web-resource about pharmacy networks in city. In: CEUR Workshop Proceedings, 239-255. (2018)
9. Lytvyn, V., Burov, Y., Kravets, P., Vysotska, V., Demchuk, A., Berko, A., Ryshkovets, Y., Shcherbak, S., Naum, O.: Methods and Models of Intellectual Processing of Texts for Building Ontologies of Software for Medical Terms Identification in Content Classification. In: CEUR Workshop Proceedings, Vol-2362, 354-368. (2019)
10. Chyrun, L., Leshchynskyy, E., Lytvyn, V., Rzheuskyi, A.,Vysotska, V., Borzov, Y.: Intellectual Analysis of Making Decisions Tree in Information Systems of Screening Observation for Immunological Patients. In: CEUR Workshop Proceedings, Vol-2362, 281-296. (2019)
11. Boyko, N., Sviridova, T., Shakhovska, N.: Use of machine learning in the forecast of clinical consequences of cancer diseases. In: Mediterranean Conference on Embedded Computing, MECO - Including ECYPS, 1-6. (2018)