INFORMATION TECHNOLOGY AND EDUCATION: DOES EDUCATION NEED EXAMPLES OF PRACTICE WITH POSITIVE AND NEGATIVE EFFECTS?

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Abstract: *The main focus of this paper is oriented on the best examples from practice and their structure. These examples are important for optimal implementation of information technology (IT) as well as education. Available spectrum examples, analyses, case studies and surveys try to show an optimal solution, but there are still many difficulties in adopted solutions and many IT projects end in failure. For examples from practice, the advice is to respect default rules for scientific paper structure and adding more information about weaknesses with links to partnerships, innovations, and future research.*

Keywords: benefit, education, examples of practice, information technology, knowledge, weakness.

INTRODUCTION

Quick, hard, and dynamic changes involve realized activities in global information society. These uncompromising demands bring positives and negatives. (Global Internet Report, 2015) The positives are often centred on available information with the support of collective thinking. This reality gives an easy way to share information based on the best examples from practice. There are also alerts against the identified difficulties and advice for active solutions. (Akpem 2015) Detailed descriptions define aims, realized activities, adopted methodologies, and achieved results that may help with optimal design and IT implementation.

The spectrum of accessed examples, studies, analyses and surveys is wide, but there questions are about their usefulness. The reason is based on the fact that many IT projects contain errors and it is difficult to learn from them. (Volek 2012) Why? Their implementation teams perhaps do not know about actual development trends in the IT field, or maybe they communicate very little with end users. On the other hand, managers, designers, analysts, programmers, operators, and other people around information technology have a high interest in IT product development and

implementation for IT users. One practical reason is a high pressure of competitors and a global team supporting open-source products. There is also a place for education.

1. INFORMATION TECHNOLOGY AND EDUCATION

Information technology is a field that is based on highly specialized work with various devices like servers, computers, tablets, and other mobile devices. The work is oriented on hardware and software equipment. The well-known phenomena are words like data, information and knowledge. The global information society has knowledge just like with goods having the price of gold. (Information society in figures, 2015) Whoever has knowledge can make appropriate decisions and succeed.

Knowledge is not many rows showed in a browser, or various graphs on a given topic. Available data and information must be processed in many relations according to actual needs and specified aims. Information technology is a means to obtain an overview in real context. The problem is in the quick development of information technology and existing changes that are realized without our confirmation. (Dineley 2015) Current knowledge is not easy to keep, and education is needed.

Education has many formats. (Quinn 2014) There is education for competitiveness, employees, adults, seniors; we must also consider primary, secondary, university education, vocational education and training or PhD education in many forms such as full-time, combined, or e-learning. The Internet also offers a source for continuous education according to personal preferences, or some people prefer individual training via Skype, and so on. The default education with teachers allows one to obtain optimal knowledge based on communication in a study team (classic or virtual class) and many solved examples with links to a necessary volume of theory. The realized tests reflect achieved knowledge.

Individual education according to personal preferences has a higher importance than before. The benefit is updating current knowledge, specifying new approaches or clarifying existing relationships between examined objects. The best benefit is presented by the multidimensional view on reality and regular updates based on the Internet. This activity is better perceived and understood through examples from practice.

2. THE BEST EXAMPLES FROM PRACTICE WITH OPTIMAL STRUCTURE

Examples from practice, the best examples from practice, practical examples, handbooks and a collection of examples from practice are only fragments of various stories from practice with a positive or negative influence on the solution of a selected situation. (Examples from Practice - Guide, 2012) The Internet shows many examples in various formats with detailed descriptions. The focus is on:

- Aim of guide.

- Conception.

- Innovation aspects.

- Benefits.

- Methodology.

- Practices.

- Partnerships.

- Research directions.

The default interest is oriented on business, added value, information and communication technologies, understanding, action criteria, project documents, regional catalysts, small and medium enterprises, opportunities, education and training, influenced objects, or domestic products. In most examples, innovation plays a key role. The mentioned experience links needed layers like technical, social, economic, and cultural to share knowledge and skills. (Khan 2009) This sharing is required in general and also in detail with respect to local conditions. There are visible changes based on IT support for open-access and global cooperation.

A common motto is to show a collection of experiences learned from the events that have helped to remove existing problems and develop more appropriate solutions and successful practices. The offered examples have helped to determine the advantages of innovative technologies and have shown the best solution in existing companies and organizations. Sustainable development supporting new forms of cooperation and IT implementation with a positive impact on the competitiveness are also mentioned. Sustainable development needs openness, cooperation, partnership, and inspiration in the exact composition of available IT products based on suitable knowledge and skills for the optimal use of information technology. For optimal understanding, it is suitable to also show negatives and weaknessess of realized solutions. The reason is to prevent the same mistakes in other projects.

Unfortunately, some examples from practice only bring basic information about a given topic and the achieved results:

- Data warehouse above SharePoint. (Memos Software, 2013)

- Ferona is betting on new Business Intelligence. (Microsoft – Case Study, 2013)

- Infa Partner – Data Integration (Informatica at Raiffeisenbank, 2010)

Such information is less useful. In all of these cases, optimal structure is important based on inspiration from scientific paper structure. (Day & Gastel 2011) The optimal structure of these examples holds its suitable place in practice as well as in education. (as seen in Please see Table 1.

Table 1.

**Design structure of the best examples from practice based on
the actual needs of the global information society.**

Designed parts of the best examples from practice
Introduction
Background
Existing controversies
Conception
Innovation
Methodology and methods
Realized activities
Achieved results
Partnerships
Discussion
Future research
Conclusion
References

Source: Own work

The introduction describes the perspective of an example from the common view. The background is oriented on specifying needed objects and positions in the selected topic. Existing controversies show difficulties that the current state brings. There is also a place for opinion collection based on current literature review. Methodology and methods are needed for an optimal solution based on adopted bases. Realized activities describe individual tasks solving the identified problems. Achieved results are centred on benefits and weaknesses. These results should be further analysed with links to existing studies and visions for further innovations in the discussion and future development sections. A standard conclusion presents the traditional summary, and references indicate used sources.

CONCLUSION

IT product implementation is a standard activity in all fields. Many false projects show that correct selection and use of these products bring difficulties. For active solution, education is needed with many examples from practice. Problems cause ambiguity and low informative value with relation to the structure of these presentations. The solution can easily respect the default scientific paper structure.

This structure is oriented on the introduction, background, controversies, methods, discussion, and conclusion. With regard to practice, it is important to add information about the conception, innovations, partnerships, and also about weaknesses that bring difficulties.

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