

## **Guest Editorial Preface**

# **Special Issue on the Role of IoT and Ambient Computing in Enhancing Current Lifestyle**

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There is no doubt that New technology is exciting, and we've gotten used to it permeating our daily lives. We're more connected and more informed than ever before, but does our new technology come with a downside, one subject of such recent technologies is called Internet of Things "IoT" which will communicate through a unified language, and this communication is beneficial to the human, as he will be able to communicate with all things around him. The Internet will be ready to receive the concept of the application economy, as this concept is the main driver of sales through the Internet, as the devices will not remain the dominant interest of the beneficiaries, but will share applications to gain a larger share of the market, which are handled by applications whether mobile phones, Internet or tablet computers, and payment solutions become simpler and available to all.

The application economy requires the installation of pre-programmed electronic chips inside objects. These chips are often low-cost. These chips send information that is estimated in terabytes and enables this information to understand a lot of things and to increase the automatic control or the Internet with things around us, so the concept of ambient computing will lead to a radical change in the way digital devices interact. Devices will be fully aware of their users, where they are located and what they want by measuring how they interact with their surroundings and by creating a database of what they are looking for in the Internet, thus dedicating the concept of the right information at the right time and place to the right person.

The combination of voice and video calls is the key feature of the coming period. This is one of the new concepts of the Internet structure, as well as text messaging applications, where the way people communicate with each other will change, and the applications that support this will be spread over the Internet. In the coming years, digital photography will undergo major changes in terms of clarity and precision, which will have great effects on most aspects of life. The use of ambient computing leads to a radical change in the way the interaction with different digital devices in the future, as the devices will be familiar with the consumers, and their locations, their faces and needs and this concept is a bit of confusion, because in fact leads to redefine the experience of users, in the way IT systems are built. We will also see a change in the way things are going to deliver any content from anyone at any time and place, so we can move to the right information era to the right person in the right place and time, and in the right way too.

The objective of this special issue is to provide a quality publication with more recent and innovative ideas as well as the implementation methodology to upcoming and budding researchers and users in the modern-day era. This special issue is structured from six papers which are written

by eminent professors, researchers and Industry people from different countries. The papers were initially peer reviewed by the Editorial Review Board members, reviewers and industry people who themselves span over many countries.

In the paper entitled: Impact of Building Human Capital with Support of Information Technology on Efficiency of Hospital Activities, the author present the results of the research on the effects of focusing managers on building human capital with information and communication technology supporting on effectiveness of Polish hospital activities. The collected data were analyzed using a structural modeling. The structural model proposed in the study proved to be properly fitted to the data, and thus showed a positive and causal relationship between the level of information technology, focusing managers on building human capital and effectiveness of operation in Polish hospitals. In the context of the proposed model, it was concluded that focusing managers on building human capital and the level of information technology development positively and statistically significantly affect the effectiveness of activities of Polish hospitals and it may be a cause-effect relationship.

In the paper entitled: Cyber Security Patterns Students Behavior and Their Participation in Loyalty Programs, the authors focused their research work on a general approach to the cyber security and safety of personal data kept and processed by different entities from the perspective of students. The authors have found that individuals are typically aware of online security and how to protect their privacy in the network. Nonetheless, it has been found that despite understanding security risks, individuals are still inclined to take risks because they are unrealistically optimistic and believe that negative events are less likely to happen to them. Research group was identified from within students of Warsaw University. The article would underline factors that seem important to the Internet users as factors that assure security in the network. Authors focused on identification of major implications and risk related to cyber security and privacy protection by people in the internet. This is the reason why authors decided to do the research, where major target is to analyse such behaviour among users. Presented below results is a condensed report covering aspects of the research. Finally the authors found also interesting patterns related to behaviour of respondents influenced by demographical data, such as willingness to change of behaviour by women and people from rural areas.

In the the work entitled: The Application of ICT in the Area of Value Co-Creation Mechanisms Support as a Determinant of Innovation Activities, the authors believe that a scope of stimuli is very difficult to clearly define. Nevertheless, recently there is a noticeable increase in the usage of value co-creation mechanism in organizations. These mechanisms often contribute to the commencement of improvement processes, which regularly take the form of innovations. So, the first part of their work contains theoretical considerations about the value co-creation mechanisms and the innovation activity which can be initiated and fostered by using these mechanisms in organizations. The second – empirical part of the article, presents the exemplary co-creation tools used in selected type of knowledge organizations – tax consulting firms. The authors pointed out the importance of value co-creation mechanisms in facilitation of this process. Moreover, the creation of value for clients, which takes places in the relation of co-creation by client and organization can, in many cases, initiate and significantly support innovation processes. Also, authors have used a tax consulting firms as an example of organizations which implement value co-creation mechanisms. They found that Owners of tax consulting firms know that client's success determines to a large extent the success of the firm. A client who develops his business, invests and undertakes innovation activities is a source of new job orders. Therefore, the cooperation between tax consulting firms and their clients clearly and pointedly shows the importance of using value co-creation mechanisms, which contribute to reciprocal benefit of the relation.

In the paper entitled: Evolution of e-Sales As A Form of e-Entrepreneurship in Poland: An Analysis of Opportunities and Threats, the contributors identify the tendencies in e-sales in Poland and the barriers hindering it, the other to show the relationships between the development of e-sales and the use of computers in enterprises. The study draws the elements of dynamics and relationships analysis, as well as tests verifying statistical hypotheses for two indexes of a structure. The analysis covers the

2011-2015 period and concentrates on businesses operating in Poland, grouped in economic sections. The results of the analysis suggest a relationship between the type of section and the likelihood of a particular barrier type. Because the analysis had the form of multiple-choice questions, the sample was not determined as the number of businesses, but the number of indications of a particular variant of a feature. The analysis showed that the enterprises in section groups indicate different barriers in every analyzed year, depending on which section they represent. Other barriers will therefore conduct e-business sales for individual sections.

Concerning the article entitled: Evaluation of Quality of the e-Commerce Service, the quality analysis of the services offered by the chosen e-shop, which is located in Czestochowa and sells lamps and chandeliers, was conducted. The research was conducted in the form of the online survey among customers of this e-shop. The authors took the form of an online survey, addressed to customers of the chosen e-shop. Servqual method allowed to evaluate generally the quality level of offered services and the differences between customer expectations and perceptions of real services, while IPA helped to identify which areas actually require intervention.

In the article entitled: Use of Contact Form in Development of Prosumer Innovations, the authors analyze the use of the contact form on a website of a company as one of the key tools that enable the inclusion of consumers in the development of product innovations. The pilot study was conducted on a sample of 116 food businesses operating in 2016 in Poland. The authors analyze the contact form of food businesses. The pilot study was conducted on a sample of 116 food businesses operating in 2016.

Analysis of the results obtained from the research showed that all surveyed companies have websites, but as many as 45% have no contact form, which enable quick and easy customer contact with the manufacturer. 55% of the surveyed companies have a form for customers, usually it takes a simple shape (name, e-mail address and the content of the information transmitted), while three companies allow their customers via the contact form to attach different types of files. Only one company has both form and blog about products.

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