

# Table of Contents

---

## Articles

### Business Management of Data Quality in Information Systems

Assoc. Prof. Valentin Kissimov, Ph.D.

Multiple applications run in the information systems lead to creation of different levels of non-quality data – from partially missing data, through doubled data with different content, to non-relevant data to the business service. Today's integrated business partners' system using B2B information flows, also lead to non-relevant information content. Depending of the level of non-quality of the data, the business damages can vary, but there are always there.

A new Method for management of the data quality is offered in the article, working with business rules. ICT solution is offered as well, supporting the Method, providing either fully automation, or partially automated tasks when a business specialist intervention is required. Business data classification is developed according to principles of storing and according to principles of logical values of the data. Technical solution for quality management of each type of data is provided.

Evaluation Parameters for management of data quality are developed while for each parameter an appropriate technical solution is offered. The entire ICT solution is proposed on a level of Conceptual design, with used Supporting system, and with specially designed Creator of business communications. Technical solution is presented for each Method's task. In the article are presented the used software components, through which the tests have been made.

**Key words:** Data Quality (DQ), Business data classification, Method for Dynamic management of DQ, Evaluation Parameters for DQ, SOA for DQ, ICT management of DQ, Creator of Business communications.

**JEL:** C6, C63, C8, C81, D8, D85.

---

### Problems in Working of Business Information Systems

Assoc. Prof. Stoyanka Stoyanova, Ph.D.

ERP systems are the current application of Information Technology in Bulgaria. Dispute, these are numeric attempts of their application, this issue stays open for further solutions. In this respect we think these unsolved issues are a good reason to value of this article. It is very important to define the term ERP, its architecture, its advantages and disadvantages, criteria for selection and as a result going to a current application in a company.

**Key words:** enterprise recourse planning, integrated information systems, data base, architecture of information systems, information technology.

**JEL:** M10.

---

### Opportunities for Online Payments in Bulgaria

Assoc. Prof. Emil Denchev, Ph.D.

The opportunities for the online payments in Bulgaria are in the article represented. It is the goal for it to clear what meanses as well what it is included in this processing, as lending as well this for optimizing the work

of the employees of the company, as time and means. In the incumbent subject are included – internet-banking, as means of which for online access and money assets management in the bank company accounts, a telephone its sms-banking, the possibilities of the system – ePay, eBg, eBay, PalPal, B-Pay and Western Union for a online paying and money remittances, conditions on registration and work and installation and administering digital certificate. The statement is being illustrated by practical examples, the performance to which it will permit the users to gain payments to contractors and to tax and customs administrations of Bulgaria Republic.

**Key words:** online payments, internet banking, online payment systems ePay, eBg, B-Pay, eBay, PayPal, Western Union.

**JEL:** G29.

---

Tendencies for SOA and Web 2.0 Merging and Its Impact on the IT Based Business Processes  
Assoc. Prof. Dimiter G. Velev, Ph.D.

The article discusses the merging of two key information technologies for control and effective use of IT based business processes – SOA and Web 2.0.

The characteristics of the two technologies are discussed in short and the advantages and disadvantages of each one are pointed out and the missing part in the other one is clearly marked. The application areas of each technology and the limitations to their use are defined.

A special attention is given to the analysis of the prerequisites for SOA and Web 2.0 merging. The special features and functionality of each technology, that are supplemental to the opposite one, are marked. The advantages

of merging the two technologies are defined – from a technological point of view, as well as from a user and business point of view.

An analysis is performed of the real world results, stemming from SOA and Web 2.0 merging and the impact on the IT based business processes is determined.

The results of the conducted analysis of the SOA and Web 2.0 merging is additionally supported by expected tendencies for future enhancements.

The conclusion grounds in shorts the advantages of SOA and Web 2.0 merging and the favourable impact on the IT based business processes.

**Key words:** information technology (IT), software, data, services, Web Based Business Applications, Service Oriented Architecture (SOA), Web Oriented Architecture (WOA), Web 2.0, Enterprise Web 2.0, Application Programming Interface (API).

**JEL:** C6, C63, C8, C81, D8.

---

Methodological Requirements for Business Intelligence Systems Architecture Development  
Assoc. Prof. Kamelia Stefanova, Ph.D.

Advanced technology developments give the opportunity organizations to collect volumes of data more than ever before, but unfortunately they rarely succeed to reach new, consistent and complete understanding of the integrated information and realize fast management solutions in the practice.

Critical success factor today for on-time decision making is managers to receive the right information, in the right place at the right time.

This reason gives the need for the first steps that organizations should undertake for their future development – to understand the business intelligence systems architectural components that will give them the opportunity to structure, integrate and analyse otherwise left to be static the volumes of bytes.

The primary goal of Business Intelligence Systems is to help people make decisions that improve company's performance and promote its competitive advantage in the marketplace.

The main objective of this article is to summarise the BIS primary advantages, to describe its nature and define and differentiate the six components of the system architecture. Each component is presented with the main methodological requirements that are critically important for the BIS architecture design and development.

BIS successful construction and deployment highly depends on the level of full understanding of the organization and the business processes best conception. The leading role of the organizational business needs should be the guiding approach to design and implement the BIS.

**Key words:** Business Intelligence Systems, Architecture, Design.

**JEL:** C8, C81, D8, D80.

---

### Effectiveness of the Computer Information Systems in Insurance

Chief Assist. Prof. Rossen Kirilov, Ph.D.

The material presents the problems in evaluating the efficiency of the computer information systems. It's based on the so called IMU model for this efficiency evaluation.

The classical grade of efficiency of this specific software is based on:  
using methodology for evaluating;  
information technologies for realization of the evaluation system;  
the user aspect of the efficiency.

**Key words:** effectiveness, information technologies.

**JEL:** G14, G22.

---

### Information System for Solvency Evaluation

Chief Assist. Prof. Alexandrina Mourdjeva, Ph.D.

This paper is a summary of practical experience in development of information system for solvency evaluation. The summary begins with a short analysis of the evaluation process in a no banking organizations and introduces possibilities for his automation. The main activities in the process are analyzed from the point of view of the significance and possibilities of their automation.

The paper introduces the possible design of such information system and the attention is paid of the common approaches and techniques, that allow to build a scalable, flexible and correct system. The result of this short research is a proposition of set of design approaches, that ensure the achievement of the main goal of information system for solvency evaluation.

This approaches are approved in the practice by development of evaluation module as part of a hole information system. In paper are present the results of development as a concrete design decisions – as database structures, procedural component for representation of algorithms (stored procedures) and user interface.

**Key words:** solvency, evaluation, automation, information, system, technology, design, user interface.

**JEL:** C88.

---

Information Technology for Automatic Identification of Bank Payments for Contracts with Clients  
Chief Assist. Prof. Monika Tzaneva, Ph.D.

This article presents the development of a complete information technology for automatic identification of bank payments for contracts with clients, whose obligations occur and are paid periodically. Main information problems, which exist during automatic identification of payments, are discussed. A physical data model, which forms the base of this technology, is designed. An algorithm for reliable payment identification based on the analysis of payment description, filled in by clients and the data about contracts, available in core Management Information System is created. A procedure for payment identification, which implements this algorithm, saves results of its own execution in a form, usable during consequent manual control of these results and during further identification of unidentified payments is developed. As a conclusion, the achieved results of the implementation of this information technology are presented – significant cutting of the percent of unidentified payments (from 12 to 5 %) has been effected, in conjunction with more than four times reduction of the time, needed for succeeding control and manual identification.

**Key words:** automatic identification, payments, technology, saving results.

**JEL:** C88.

---

Policies and Architectures for information security of the citizens as e-Government users  
Chief Assist. Prof. Anton Palazov, Ph.D.

Wide spread and full functionality of e-Government services for Bulgarian citizens expose them to the risk of common loss of availability for these services, involving in an attack networks, identity theft, revealing of confidential information and suffering of direct financial wastages.

In the article is shown that for the information security policy for citizens could be defined specific requirements for minimum mandatory computer literacy, minimal level of expenses and relief policy evolution along with the citizen's progress in the e-Government services usage. According to the level of growth of services, citizens' information security policies are summarized in three categories: for base users, for identified users and for universal users.

Clear distinguishing of the immediate protection system, the tools for management and the means for control and information security policy enforcement allows in the article to be offered different architectures, which give some possibilities for the citizens and support the e-Government advance. Main advantages of architectures with centralized management and common immediate protection tools are present and the mandatory functions of the security software agent as a basis for a real implementation of proposed solution are specified.

**Key words:** e-Government services; information security policy; management, control and immediate security protection; architectures for citizens information security protection; software security agent.

**JEL:** L86, H83.

---

### Review

Electoral Procedures and Electoral Legislation in Principality of Bulgaria (1878-1880) – Political Stereotypes and Contemporary Discourse  
Chief Assist. Prof. Radka Tzenova, Ph.D.

This study is an attempt for an interdisciplinary analysis of the results of the political and legislative activity of the Russian government, the Russian temporary administration and the shaping Bulgarian political elite in Principality of Bulgaria (1878-1880) towards the: 1) the preparation and the hold of elections for the elective representatives in the Constituent Assembly in Tarnovo, additional elective deputies for the I Great National Assembly and deputies for the I Ordinary National Assembly; 2) the elaboration of the four projects for Constitutional Statute of the Principality and the passing of the Tarnovo Constitution; 3) the creation of a legislative frame for the formation of the electoral, parliamentary, party, judicial, i.e. the political system of the third Bulgarian state.

The accent is drawn over the descriptive, the comparative and the legislative analysis of: 1) subnormative acts, regularizing the elections and the procedures for their organization and hold. They are elaborated by the Russian Temporary Civil Government and the Bulgarian collaborators in 1878, and 2) the first normative acts of the Bulgarian electoral law passed by the Constituent Assembly in March and April 1879 and by the I Ordinary National Assembly in December 1880, which regulate politically and judicially the electoral system and the electoral regime in Principality of Bulgaria. The first Bulgarian electoral system is majority, with relative majority and is constituted by the hold of the elections for the I Ordinary National Assembly in September and October 1879. This is a system of general suffrage and

equality, which is in its embryo. If in a given electoral district, constituency or town a less than a quarter of the electorate have voted, a ballot vote is envisaged and if after it there is a division, the debatable point is resolved through lot.

In conclusion we can make the deduction that for a short period of time (1878 – 1880) the Russian government, the Russian Temporary Civil Government and the Bulgarian notables – the deputies in the Constituent National Assembly and in the I Ordinary National Assembly elaborate and/or pass the constituent documents, which regulate fundamental issues of the constitutional model – form of government; type of the political regime, as a functional side of the political system; structure and functions of the three powers and the correlation between them; citizen rights and freedoms, etc.

**Key words:** electoral legislation, electoral procedure, electoral system, political and legislative activities, political stereotypes and traditions.

**JEL:** K40, O33, O38.

---

Alternatives for Protection of Children's Television Audience in the Frame of Media Regulation  
Chief Assist. Prof. Katya Mihailova, Ph.D.

The following article is focused on one of the core important social issues such as protection of children. The problem is set and analyzed in the frame of interactions between young people and media. The aim of the article is to increase awareness of the vulnerability of children as an audience group and to point out some effective mechanisms for their prevention of harmful media content. The article is standing on a point that in the digital age the prevention of minors is possible only in a co-regulative audio-visual

environment in which the concept of media literacy is gaining not only theoretical prominence, but also some practical expressions.

**Key words:** children, vulnerable audiences, harmful media content, media regulation.

---

Contents and Article Summaries

Guide for Authors