Improving IT Project Outcomes by Considering Alternative Perspectives

Ricardo Colomo-Palacios, Universidad Carlos III de Madrid, Spain

Adrián Hernández-López, Universidad Carlos III de Madrid, Spain

The development of corporations' intellectual capital represents one of the most significant challenges for today's managers, and one of the most fertile fields for business innovation. Human capital plays a pivotal role in high-tech sectors' competitiveness, and this circumstance has favoured an increase in the importance of this asset in different environments focused on the government and management of IT. In this context, productivity management and, more precisely, individual and team productivity management still represents a challenge for IT managers. Taking into account that globalization is also affecting projects' productivity, classical measures such as LOC need to be analyzed and renewed in search of multidimensional and more complex inputs and outputs.

Productivity is, according to the Oxford English Dictionary, the effectiveness of productive effort. So, productivity metrics should be constructed to encourage performance enhancement, effectiveness and efficiency. Given that, in a new technological and financial environment, a novel generation of productivity metrics should be designed and applied. But in every case, the metric must be designed to calculate the contribution of a given individual

towards the common goal of the team and the company. According to Anderson (2003), there are two high level categories of metrics: Production metrics and financial metrics. Production metrics measure the amount of production and financial metrics, based on production metrics, quantify the cost and profit of this production. For every project manager or CIO both of these metrics comprise crucial tools to control and manage the production process.

With the aim of exploring the complex issue of productivity in IT projects, in this special issue, the guest editors are glad to present five innovative and interesting works focused on IT productivity management and measures. The first article by Ilg and Baumeister is entitled "Performance Management in Software Engineering". This paper proposes an enterprise-specific approach which combines lifecycle and activity based costing techniques for software development following the incremental and iterative unified process model.

In the second paper, entitled "Multicultural Software Development: The Productivity Perspective" by Aramo-Immonen, Jaakkola and Keto from Tampere Technical University in Finland, the authors analyze multicultural

ICT companies from a productivity perspective through the lens of cultural differences. This paper explores the complex issue of productivity in software development work and reports several interesting findings based on general cultural studies and reported experiences that seem to affect productivity in the software industry.

The third article, titled "Software Engineering Productivity: Concepts, Issues and Challenges" by Hernández-López, Colomo-Palacios, García-Crespo and Cabezas-Isla presents the general concepts of software engineering productivity along with general issues and recent challenges that need further attention from the research community.

In the fourth article, entitled "Snapshot of Personnel Productivity Assessment in Indian IT Industry", the authors employ illustrative-case examples to provide a holistic perspective of personnel productivity assessment methods used in the Indian IT industry.

Finally, the last article is titled "Optimizing the configuration of development teams using EVA – The case of ongoing project adjustments facing personnel restrictions" and is authored by Baumeister and Floren. This paper proposes the use of a modified Earned Value Analysis (EVA) based on new resource-based performance measures, which provides information on the performance effects of personnel adjustment alternatives.

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The collection of articles in this issue has shown the importance of productivity management in IT Projects. We hope that readers find the papers of this volume useful and innovative.

REFERENCES

Anderson, D. J. (2003). *Agile Management for Software Engineering: Applying the Theory of Constraints for Business Results*. Upper Saddle River, NJ: Prentice Hall.

Ricardo Colomo-Palacios
Adrián Hernández-López
Guest Editors
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Ricardo Colomo-Palacios is an Associate Professor at the Computer Science Department of the Universidad Carlos III de Madrid. His research interests include applied research in Information Systems, Software Project Management, People in Software Projects and Social and Semantic Web. He received his PhD in Computer Science from the Universidad Politécnica of Madrid (2005). He also holds a MBA from the Instituto de Empresa (2002). He has worked as software engineer, project manager and software engineering consultant in several companies including Spanish IT leader INDRA. He is also an Editorial Board Member and Associate Editor for several international journals and conferences and Editor in Chief of International Journal of Human Capital and Information Technology Professionals.

Adrián Hernández López is a PhD student at the Computer Science Department of the Universidad Carlos III de Madrid in Spain. His research interests include applied research in People in IT, Human Aspects in IT and Software Process Improvement. He finished his Bachelor's degree in Computer Science on 2007 and his Master's degree in IT Science specialized on Software Engineering on 2009 at the Universidad Carlos III de Madrid. He has worked as software engineer in several companies including Telefónica and INDRA.