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Introduction

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New technologies present both opportunities and challenges; Eva Gerstmeier (this volume) notes that Internet provides market participants with a plethora of pricing mechanisms, including English auctions, name-your-own-price-mechanisms, and negotiations. There have been numerous studies about online auctions, negotiations, and group decision making, undertaken by researchers in behavioral economics, computer science, and management information systems; Gerstmeier's study is an example of contributions to group decision and negotiation research and practice.

Internet and other information and communication technologies (ICTs) provide a platform for novel mechanisms for exchanging goods and services as well as information and ideas. The latter requires cooperation which, in a distributed and technology laden environment, may be very difficult and frustrating. Gwendolyn Kolfschoten, Jur Kosterbok and Alain Hoekstra (this volume) continue research initiated by Robert Briggs and de Vreede (2009) on collaboration engineering, which is based on the design and implementation of ThinkLets—a combination of a tool (a concrete configuration hardware and software technologies used to create a pattern of thinking) and a script (a set of events and instructions which people follow to create a pattern of thinking).

While our personal and professional lives are affected by technological innovations, it would be an error to claim that technology replaced content-rich interactions among people, including conflict management. Models and methods of group decision and negotiation remain relevant and useful to the study of social processes. We should not forget, however, that models and methods are derived from axioms and paradigms; basing someone's reasoning on a wrong or irrelevant axiomatic system may produce a spectacular error. No one can show it better than Hervé Raynaud; he does it in the article which opens this volume, *Can Chat Group Therapy Suggest a Paradigm for Axiomatized Collective Decision Process*.

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Hervé Raynaud, through his unique mix of humor and deep observations of human nature, discusses the axioms underlying choice, in particular multi-person and multi-criteria choice. In three interconnected parts he reiterates the paradoxes and impossibilities which Kenneth J. Arrow, Gert Köhler and he himself identified and tried to resolve (Arrow and Raynaud 1986). Raynaud stresses that the logical structures of multi-criteria decision making and the emotional situations of the decision makers may be interconnected and that these connections need to be recognized and included in the construction of models. Failing to recognize them may produce unexpected and very negative results, which he illustrates with an example of a dramatic failure of sound therapeutic techniques which were employed without consideration of the patients' needs.

Alessandro Luè and Alberto Colorni discuss the use of a system of methods to conduct a comprehensive environmental impact assessment. The study entitled *Conflict analysis for environmental impact assessment: A case study of a transportation system in a tourist area*, introduces two approaches to group decision making. The first approach requires that a group jointly engages in every step of the decision process. The second approach allows group members to engage in problem solving individually; only after everyone has solved the problem all group members seek consensus. The authors chose the second process and embed it in it a multi-attribute value model. There are seven types of stakeholders who are engaged in the process. In order to bring the process to a conclusion Luè and Colorni follow the advice of Keeney and Raiffa (1976) and propose a supra decision-maker who is responsible for assigning power indices to individual stakeholders and for the sensitivity analysis.

One of the achievements of ICT is the ability of millions of people to communicate and access information rich resources. This opportunity led to the revival of interest in participatory democracy. Alfonso Mateos, Antonio Jiménez and Sixto Ríos-Insua are among the researchers who have been working in the development of models and tools that would allow citizens to actively participate in public decision-making. Their paper *A group decision-making methodology with incomplete individual beliefs applied to e-democracy* proposes a four-phase approach to solve a multi-attribute discrete problem with a large number of decision-makers. The core of their method is the specification of individual preferences, elicitation of weights, application of the Dempster-Shafer theory of evidence for attribute aggregation, computation of the expected utility for all alternatives, and finally, ranking of the alternatives. While the method is complex as it requires solving simultaneous equations and optimization problems, the authors show that its use is fairly simple and does not require specialized knowledge.

In negotiations and, to a lesser degree group decision making, we assume the existence of conflict. Conflict may be apparent or real and the participants in both processes are expected to compromise and make concessions. Manuel Salvador, Alfredo Altuzarra, Pilar Gargallo and José Moreno-Jiménez's approach to multi-participant decision processes bridges individual decision-making that is typical for negotiations with a group top-level perspective, which is based on the tolerance principle. Tolerance is derived from the individual priorities of the participants and it also takes into account participants' importance or influence. The authors, of the paper entitled *A Bayesian approach to maximising inner compatibility in AHP-systemic decision making*, propose a measure to evaluate the level of tolerance of the actors involved in

the decision making process with regard to the resulting tolerance distribution (inner compatibility). They illustrate the approach with the design of a participative budget scenario for the City Council of Zaragoza.

The two papers mentioned above deal, albeit quite differently, with the issues of democracy. Mateos, Jiménez and Ríos-Insua propose a method to aggregate preferences formulated, often incompletely, by many individuals. Salvador, Altuzarra, Gargallo and Moreno-Jiménez's paper proposes focus on strengthening people's tolerance rather than conflict. Democracy relies on public participation but—as Gwendolyn Kolfschoten, Jur Kosterbok and Alain Hoekstra pointedly remind us—it also relies on principled and reliable government organizations and institutions. In *A transferable ThinkLet based process design for integrity risk assessment in government organizations*, the authors propose a collaborative engineering approach to designing an integrity assessment process.

The paper describes a case in which an integrity assessment collaboration process needed to be used in several agencies. The process was designed and made available but it was found difficult to be transferred and deployed in different organizations. Therefore it was re-designed with ThinkLets which facilitates transferability of the process and its predictability when different facilitators employ it. Kolfschoten, Kosterbok and Hoekstra illustrate the application of the ThinkLets-based process during which government employees were trained to conduct integrity assessment workshops.

Internet has changed the way people communicate and do business. It has also changed the way people and organizations buy and sell, including doing this via auctions or name-your-own-price. Eva Gerstmeier in the paper *Do name-your-own-price or English auctions perform better?* presents a study of bidders' behavior in simultaneous English auctions and simultaneous name-your-own-price with multiple bids. The results show, perhaps not surprisingly, that the actual bidding behavior deviates from the expected rational bidding behavior. These results are, however, somewhat differenet in each of the two mechanisms. The results of the experiments show that higher heterogeneity in the participants' willingness to pay does not significantly increase the producer's surplus in English auctions, but it has a positive effect on producer surplus in the name-your-own-price mechanism. The implication of this study is that the sellers who do not know the demand for their products, should use a name-your-own-price mechanism rather than an English auction.

The opening article of this special issue deals with, among others, the relevancy of axioms to the specifics of the situations that the decision-makers encounter. Knowing when one should base his or her approach to negotiation on a given set of axioms is as important as knowing whether one should engage in a negotiation. This latter point is raised by Geraldine Mackenzie, Andrew Vincent and John Zeleznikow in the article, which closes the issue. They deal with an important and often emotionally charged problem of balancing interest and justice. The domain the authors of the article *Negotiating about Charges and Pleas—Balancing Interests and Justice* consider is plea bargaining which is an opaque process that may result in "the admittedly few cases where a person accepts a plea bargain even though they did not commit the crime". The authors propose to design a system to support plea bargaining based on a framework designed by Lodder and Zeleznikow. The system's aims are: (1) identification of the set of issues; (2) provision of a consistent advice regarding search for BATNA; (3)

facilitation of communication between the parties; and (4) identification of possible trade-offs and compromises.

Due to unforeseen circumstances it took a long time to complete this issue. The authors were waiting to see their work published and the readers—to read and use it in their work. We wish to apologize to both the authors and the readers. We also wish to acknowledge the reviewers' work and to thank them for their help in getting this issue finalized.

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