

Editor's Introduction

In this *MISR* issue, we are delighted to present four research papers concerning the following issues: selecting the right format of Web advertisement, insights into online auction market structure of eBay in 2006-2007, technique of data-hiding based on LSB (least-significant bit) matching towards high imperceptibility, and schemes for handling cumulative member removal and bursty behavior. The summaries of the four papers are as follows.

Payam Hanafizadeh and Mehdi Behboudi in their paper “The Right Format of Web Advertisement: Case study in Iran” develop a solution for selecting the right format of web advertisement in Iran. The study designed a new methodology based on TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) philosophy, and have defined two ideal frameworks; one for advertisement and the other one for alternatives. Accordingly, the right format of web advertisement is the advertisement that its ideal has a more similarity with the ideal of alternative. To test this methodology, the study selected 150 Iranian high-ranked websites and found that the model is working properly. The report of websites analysis is placed at the appendix.

Yanbin Tu, Steven R. Clinton and Adora Holstein in their paper “Insights into Online Auction Market Structure of eBay in 2006-2007: A Historical Perspective” extend existing research by using eBay’s auction data for the Xbox game console to understand the evolution and characteristics of eBay users, and to investigate the nature of competition in this market in 2006-2007. Among others, the study finds that the Xbox game console market could be best categorized as a mix market with a dominant C2C (Consumer to Consumer) segment because it had many individual sellers. The study also discusses the theoretical contributions and managerial implications of our findings regarding three dimensions of online auction market structure, and identify future research directions.

Marghny H. Mohamed, Naziha M. Al-Aidroos and Mohamed A. Bamatraf in their paper “Data Hiding Technique Based on LSB Matching towards High Imperceptibility” propose an efficient steganographic scheme which provides high capacity of secret data as well as imperceptibility of stego image. Using fixed number (i.e., max) as the upper limit criteria for embedding, the target pixels selected for embedding are based on the number of bits which matches between the secret data bits and the cover pixel bits. As an indicator to determine which pixel is used for embedding, the first bit is reversed (negated). The experimental results over greyscale images showed, the ability of embedding high data capacity with preserving stego image quality. Efficiency of the model is evaluated using two metrics, the PSNR (Peak-Signal-to-Noise Ratio) value as one of the evaluation

metrics, and the visual effects over the cover image as the second. Results are drawn and compared with one of the most common techniques (Classic LSB) and accordingly showed significant advancement.

R. Aparna and B.B. Amberker in their paper “Key Management Scheme for Cumulative Member Removal and Bursty Behavior in Secure Group Communication using m -ary Tree” propose schemes for handling cumulative member removal and bursty behavior. The study uses m -ary key tree for managing the secure group and maintain only m keys at each level of the key tree. It starts with a scheme for cumulative member removal and then handles all the possible bursty behavior scenarios. It further analyzes the communication and computation costs for worst cases, and compares the costs of their scheme with the schemes proposed by Li et al. (2001) and binary key tree scheme of Zou, Magliveras, and Ramamurthy (2002). The result shows that in their scheme the number of new keys generated and encryptions performed are less compared to Li et al. (2001) and Zou, Magliveras, and Ramamurthy (2002) schemes.

We would like to thank all the authors and reviewers for their collaborative efforts to make this issue possible. Please note that the Chinese version of a paper, if any, is available online at the Airiti company website. We believe the bilingual format of paper submission would allow Chinese authors to better focus on their research process rather than being hindered by language barrier. It is our sincere wish that this journal become an attractive knowledge exchange platform for both Chinese and non-Chinese authors. Please provide your continuous support and submit your papers to *MISR*. Finally, to our loyal readers around the world, we hope you find the contents of the papers useful to your work or research.

Dr. Eldon Y. Li
Editor-in-Chief and Professor

Dr. Shari S.C. Shang
Managing Editor and Associate Professor

Department of Management Information Systems
College of Commerce
National Chengchi University
Taipei, Taiwan
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