1. **An innovative electronic group-buying system for mobile commerce.** By: Jung-San Lee, Kun-Shian Lin. *Electronic Commerce Research & Applications, 63*(1): 1-13. **Abstract:** With the benefits of discount and convenience, the group-buying mechanism has become a popular commerce service. Nevertheless, there exist several drawbacks in current group-buying systems. First, the absence of security consideration may reveal the privacy of involved participants. Moreover, buyers must pay money to the initiator in advance. Without a trusted third party to monitor the purchase, the initiator may vanish after collecting the money. To mitigate the risk of the above weaknesses, we propose a new mechanism introducing a group-buying server to secure and monitor the transaction. Because the server acts as a mediator, it can help the buyer and vender to negotiate with each other through a secure channel. Mutual authentication between the buyer and vender is guaranteed under the BAN logic model. In particular, we employ the Bloom filter and XOR operation to reduce the size of the transaction table and the computational cost. Thus, the new method can be implemented in mobile devices. **Keywords:** Mobile commerce; Group-buying; Mutual authentication; BAN logic; Bloom-filter

2. **Combining user preferences and user opinions for accurate recommendation.** By: Hongyan Liu, Jun He, Tingting Wang, Wenting Song, Xiaoyang Du. *Electronic Commerce Research & Applications, 63*(1): 14-23. **Abstract:** Recommendation systems represent a popular research area with a variety of applications. Such systems provide personalized services to the user and help address the problem of information overload. Traditional recommendation methods such as collaborative filtering suffer from low accuracy because of data sparseness though. We propose a novel recommendation algorithm based on analysis of an online review. The algorithm incorporates two new methods for opinion mining and recommendation. As opposed to traditional methods, which are usually based on the similarity of ratings to infer user preferences, the proposed recommendation method analyzes the difference between the ratings and opinions of the user to identify the user’s preferences. This method considers explicit ratings and implicit opinions, an action that can address the problem of data sparseness. We propose a new feature and opinion extraction method based on the characteristics of online reviews to extract effectively the opinion of the user from a customer review written in Chinese. Based on these methods, we also conduct an empirical study of online restaurant customer reviews to create a restaurant recommendation system and demonstrate the effectiveness of the proposed methods. **Keywords:** Feature
3. **Trust beyond reputation: A computational trust model based on stereotypes.** By: Xin Liu, Anwitaman Datta, Krzysztof Rzadca. *Electronic Commerce Research & Applications*, 63(1): 24-39. **Abstract:** Models of computational trust support users in taking decisions. They are commonly used to guide users’ judgements in online auction sites; or to determine quality of contributions in Web 2.0 sites. However, most existing systems require historical information about the past behavior of the specific agent being judged. In contrast, in real life, to anticipate and to predict a stranger’s actions in absence of the knowledge of such behavioral history, we often use our “instinct”—essentially stereotypes developed from our past interactions with other “similar” persons. In this paper, we propose StereoTrust, a computational trust model inspired by stereotypes as used in real-life. A stereotype contains certain features of agents and an expected outcome of the transaction. When facing a stranger, an agent derives its trust by aggregating stereotypes matching the stranger’s profile. Since stereotypes are formed locally, recommendations stem from the truster’s own personal experiences and perspective. Historical behavioral information, when available, can be used to refine the analysis. According to our experiments using Epinions.com dataset, StereoTrust compares favorably with existing trust models that use different kinds of information and more complete historical information. **Keywords:** Security and trust; Computational trust; E-commerce; Multiagent systems; Information retrieval; Distributed systems; Recommender systems

4. **Estimating the value of lost telecoms connectivity.** By: Sean Lyons, Edgar Morgenroth, Richard S.J. Tol. *Electronic Commerce Research & Applications*, 63(1): 40-51. **Abstract:** We describe a practical method for estimating the economic cost of outages in electronic communications networks, accommodating temporal, geographical and sectoral variations in incidence. The method is illustrated with two types of examples: a hypothetical outage of the main fixed line network operator in Ireland, and seven examples of outages affecting individual local exchanges in areas with concentrations of technology-intensive employment or dense residential population. The national fixed line outage has an estimated cost of €42–50 per household-day arising from effects on the productive and residential sectors, with possible further losses from effects on retail payments and high societal value facilities such as emergency services. Estimated quantifiable economic costs from outages affecting a single local exchange range from €370,000 to €1.1 million per day. **Keywords:** Cost of outages; Economic analysis; Service continuity; Telecommunications; Value

5. **Superstars and outsiders in online markets: An empirical analysis of electronic books.** By: David Bounie, Bora Eang, Marvin Sirbu, Patrick Waelbroeck. *Electronic Commerce Research & Applications*, 63(1): 52-59. **Abstract:** Recent rapid growth in electronic book sales has raised a critical question for publishers and bookstores: do e-books cannibalize or increase print sales? In this article, we compare the best-selling titles sold on www.Amazon.com in print or electronic Kindle formats during the period from November 2007 to July 2010. Using econometric methods, we find that the cannibalization of print sales by e-books is more likely to occur for superstar titles written by successful authors. However, we find that a new segment of successful electronic titles that are not best-selling in print format emerge; these books would probably have been unpopular without the new Kindle
store and therefore this new distribution channel has expanded the market. We refer to these titles as digital outsiders. The latter are characterized not only by lower prices but also by older release dates. They also include titles that are only released in electronic format. We then argue that electronic books increase the market viability of old print releases. Finally we identify a category that we call print-preferred books that are top sellers in print but not as e-books for reasons of color, graphics, or the need to navigate non-linearly, a style to which the current generation of e-book readers are not well adapted. Keywords: Bestsellers; Books; e-Books; Cannibalization; Digital outsiders; Econometrics; Economic analysis; Kindle; Print-preferred books; Superstars