



# Parasitism and Internet auction fraud: An exploration

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## Abstract

Most research on Internet auction fraud focuses exclusively on the relationship between the con-artist and victim. However, the con-artist and victim are situated in an ecology comprising the auction house, police, and auction community. This paper employs the ‘parasite’ metaphor as a way of building theory about Internet auction fraud. We begin by describing the parasite metaphor. We then introduce three theories from the parasitism literature and demonstrate the insights these theories can produce. The first theory, the competitive exclusion principle, highlights how separate auction markets evolve their own species or types of fraud. It also warns us that fraud elimination may be neither desirable nor feasible relative to constraining fraud to acceptable levels. The second theory details various parasite infection mechanisms to show that on-line fraud is composed of two processes; the actual deception and escape. Finally, virulence theory provides one way to predict how much harm a particular kind of fraud will cause to an individual victim. Virulence theory is also used to suggest that the auction infrastructure encourages low virulence vis-à-vis other kinds of fraud like Nigerian letter fraud.

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## 1. Introduction

Internet auctions are among the most celebrated and successful new business models of the emerging knowledge economy (Kambil & Heck, 2002). eBay, the largest Internet auction house, has experienced exponential growth in customers, number of items sold, and gross merchandise sales since its incorporation in 1996 (eBay Inc, 2005). However, the rise of Internet auctions has also led to the rise of Internet auction fraud. Internet auction fraud is the most pervasive form of Internet fraud (National Fraud Information Center, 2007; National White Collar Crime Center, 2005). Indeed, Internet auction fraud has literally grown in lockstep with the growth of Internet auction markets. Fig. 1 charts this relationship, cross-indexing three measures of growth in the (by far) largest Internet auction site against the only systematically collected statistics on Internet auction fraud. The correlation between these measures of growth and auction fraud range from 0.89 (items sold vs. auction fraud) to 0.94 (no. customers vs. auction fraud).

That Internet auction fraud is so prevalent is worrisome, especially as Internet auctions rely to a great extent on trust. While existing work has highlighted some important concerns about Internet auction fraud, the problem largely remains unsolved. Novel perspectives are therefore warranted to challenge and refine existing theory.

This paper explores the use of the biological parasite as a metaphor for Internet auction fraud. In using the metaphor, we draw upon three theories of parasitism: (1) competitive exclusion, (2) parasite invasion mechanisms, and (3) virulence theory. We explore how

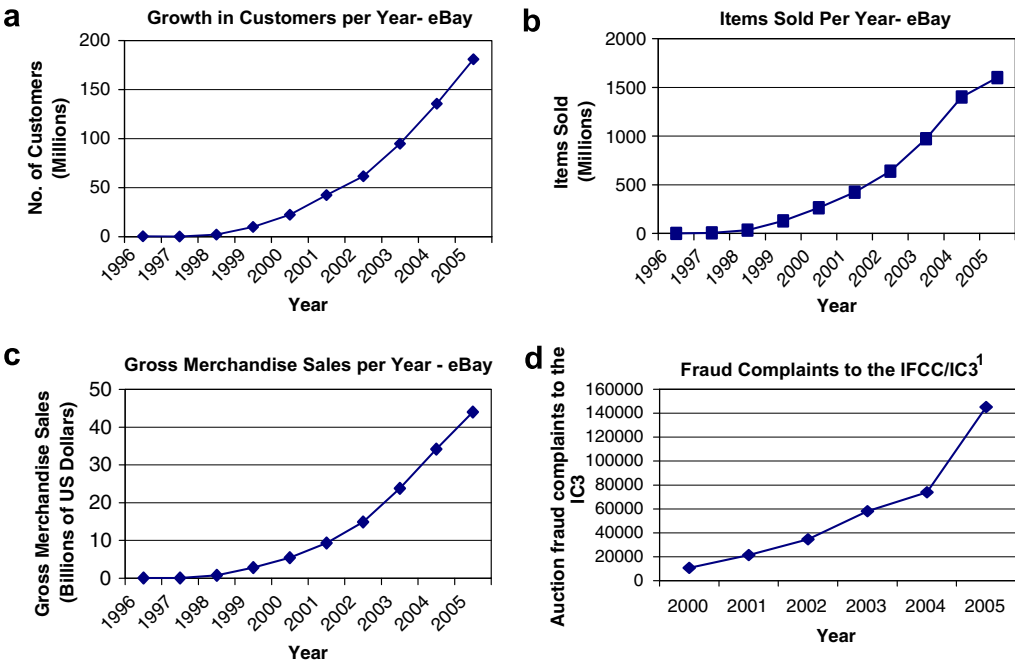


Fig. 1. Growth in eBay transactions and fraud. (a) Growth in customers per year – eBay. (b) Items sold per year – eBay. (c) Gross merchandise sales per year – eBay. (d) Fraud complaints to the IFCC/IC3. (The IFCC/IC3 was formed in mid-2000. Formal statistics for the period before this are unavailable.)

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