

The Evolution of E-commerce and related consumer fraud

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In the early 1980's:

the stand alone Commodore 64 was about the height of electronic home computing power,

There were a few early “cash point” machines

Credit cards relied on paper slips, and phone calls to verify significant transactions.

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1985 :

14 million credit card holders transacting \$20.4 billion

No ATM's

No debit cards

No on line banking

Mail order an almost spent force – most shopping done in person

Most consumer transactions done with cash, or cheques or card slips requiring signatures, in person

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2005:

56.4 million credit card holders transacting \$216 billion

ATM's on every street corner

On average Canadians each makes 81.7 debit card transactions a year

76% of bank account holders use online banking

On-line shopping an every day event

Many of these transactions are faceless, require no verifiable signatures, and are instantly completed – (businesses still love their cheques)

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and while old style fraudsters required nerve, facility at forgery, and committed their crimes face to face, this E world has opened up a whole new world for the faceless consumer fraudster.

We now have Malware attacks where fraudsters go

Phishing and Pharming

(accelerating at a multiple as much as 5 times year over year by some estimates), using

Keyloggers, Backdoors, Bot clients, Re-directors and

Data miners

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Today the principle E world frauds encompass:

Auction fraud	44.9%	average loss	\$600
Non- delivery	19.0%		\$580
Cheque fraud	4.9%		\$3,700
Nigerian letter	1.7%		\$5,100
Identity theft	1.6%		\$1,400 ('05) \$3,250 ('06)

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The US based FBI Internet Crime Complaint Centre reports suggest that e-fraud is a booming business with referrals from victims and losses to those victims escalating;

	Referrals '000s	Losses in \$ millions
2001	10	17.8
2002	45	54.0
2003	65	125.6
2004	100	68.1
2005	96	183.1
2006	86	198.4

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While there are sophisticated operators who use stolen point of sale machines or scanners inserted in p.o.s machines to skim card numbers, identity information and PINS, or from phishing or pharming – all reports show that the bulk of identity theft still result from non-e activity (about 2/3rds) – eg theft of wallets and purses

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Despite the huge dollar volumes of e-business that is now being conducted there step up in security over e-transactions appears to be winning the battle or at least containing the losses to the pre-E era

The CBA report credit card (MC and Visa) losses from fraud as follows:

Sales (billions) Fraud loss (millions) Percent

1985	20.42	17.54	.086
1990	42.48	28.9	.068
1995	68.12	72.64	.106
2000	125.18	156.38	.125
2005	216.04	168.6	.077

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A survey of On-Line merchants (US) confirms this trend;

	Revenue reported (bill)	% loss to fraud
2001	1.7	3.2
2002	2.1	2.9
2003	1.9	1.7
2004	2.6	1.8
2005	2.8	1.6
2006	3.0	1.4

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Published consumer surveys suggest:

1. Consumers assume that banks and credit card companies are monitoring their accounts and transactions and will alert them or intervene if there are unusual transactions.
2. Consumers are prepared to accept the inconvenience of additional security measures for the convenience of being able to make E-transactions

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Summary:

E-based fraudsters have ridden the crest of the e-wave, but with increased awareness business has increased its security over their customers assets and identity to reduce fraud levels as a percentage of the value of transactions to the pre-E era.

Vigilance should however be enternal and consumers will have to live with the inconvenience of ever increasing security measures to E-transact.

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Background Material and statistics from:

Canadian Bankers Association

Celent Communications

Factiva

FBI Internet Crime Centre

Javelin Research