

Behind the Scenes of a Viral Marketing Campaign: How Plaxo Crossed the Tipping Point and Avoided the Fate of the Ebola Virus

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Abstract

This case study details the viral marketing campaign of Plaxo, Inc., a company that provides internet-based updating of personal contact information. The experiences of Plaxo highlight that even with an inherently viral product, viral-growth is not guaranteed. It can require substantial management. The case discusses how such management was done at Plaxo by focusing on a simple viral marketing equation, $V = N * Cr$, where the two key variables are: N = Number of messages sent and Cr = Conversion Rate of a message. Product features that affected this viral equation were identified and improved with experimentation. In short order, these improvements cumulated to push the company past the tipping point. However, the pursuit of aggressive viral growth can have negative side effects. The company employed a carefully crafted feedback loop via internet alert services that tapped into the blog community. This allowed management to better understand negative perceptions of the product and particularly to turn around critics quickly before their impact got out of control.

Introduction

Viral marketing is a seductive concept. In a viral marketing campaign a company uses the influence of its own customers to promote a product or service to other prospective customers (Leskovec, et. al 2006). Viral marketing models promise hockey stick growth with little or no marketing expenditure (Jurvetson 2000). Viral marketing used to be restricted to online companies, but -- tempted by widely publicized success stories -- marketing managers at Fortune 500 companies are launching such campaigns¹. However, what seems less understood is that most viral attempts are likely to fail (Wilson 2000). Unless a viral engine reaches a point of “internal combustion,” the effort is not likely to generate sustained growth (Gladwell 2000).

This article goes behind the scenes at Plaxo, Inc. an Internet service that updates changes in personal contact information across users’ electronic address books. Information was obtained by interviewing managers and examining archival records including patent applications. Due to this unique access we are able to piece together the sequence of events behind Plaxo’s successful viral marketing campaign.

Plaxo launched its product with a viral marketing campaign that ultimately attracted 5 million users in 3 years. However, even though Plaxo’s service is inherently viral, the company quickly learned that this by no means guaranteed automatic viral-like growth. Months after a launch and a brief spurt of initial growth, daily adoptions dropped to just a handful of new users per day.

Given lackluster growth and a declining cash position, Plaxo used a viral growth equation and an experimentation process for optimizing its “viral engine.” The equation helped explicitly identify features of the product that impact viral growth. Experimentation and natural selection was used to improve product features that impacted viral growth. This highly reasoned approach raised the viral index beyond a ‘magic’ threshold and drove the company to the tipping point. Within three months the user growth was up to 5,000 new users per day.

However, as the viral engine took off, it set off red flags among the internet community. Criticism of Plaxo in blogs, forums and press articles tarnished it as an invasion of privacy and the generator of SPAM. It seemed that Plaxo had become like the myth of the ebola virus, growing so aggressively that it was in danger of killing off its hosts. At that point, Plaxo was faced with a painful dilemma, abandon the viral approach or ignore the negative press risking further damage to brand.

Ultimately, Plaxo found a way out--striking the right balance between viral growth and being a good net citizen. The company hired a privacy officer to get a fresh perspective and to investigate the privacy concerns that naturally occur with an address book

¹ [Burger King's The Subservient Chicken](#) and [Coq Roq, Ford Motor Company's Evil Twin](#) campaign, [Heinz's Ketchup Against Tomato Cruelty](#) campaign, [McDonald's "McRib Farewell Tour"](#) , Office Max’s Elfyourselves campaign– see http://en.wikipedia.org/wiki/Viral_marketing for many examples of major corporations moving into viral marketing campaigns.

updating service. Plaxo changed product features to moderate viral growth and established an active outreach program to turn its critics around.

The next section describes the problem of managing contact information and Plaxo's solution. Following that, the product launch is discussed, along with the development of the viral equation and its implementation. Data on viral growth is presented followed by an analysis of the negative effects of too-rapid viral growth and how Plaxo learned to strike the right balance. In closing, the article highlights some key lessons learned.

Contacts Just Keep on Moving

In 2001, Todd Masonis and Cameron Ring were roommates at Stanford University. They saw the need for a service to update email addresses and other contact information that many individuals were struggling to maintain on their own computers. They found that many of their own personal contacts were constantly out of date as college friends graduated, took jobs, got married, and frequently moved.

Maintenance of up-to-date contact information between friends, family, business associates, clients, and customers has always been a challenging task. In a typical year, most people change at least some item of contact information such as a phone number, a fax number, an email address, or a physical address. One study indicated that in a typical year, approximately 35% of Internet users change an email address and 33% of mobile phone users change one of their numbers (Weidlich 2000). Also, approximately 40 million people change physical addresses in a given year. Furthermore, out-of-date contact information leads to losses such as friendships or business opportunities for productivity and revenue. Hence, a self-updating address book appeared to be a desirable service.

Services Based on Symmetric Networks: In 2002, several conventional services did provide online storage and maintenance of contact information. However, these services were only able to provide updates to the contact information of other users of the same service and could not handle across-service updating. For example, if "myupdateservice.com" is a symmetric service, then a subscriber would only be able to obtain updates of contact information from other subscribers to the same service. Plaxo management termed such services "symmetric" in that they required both parties of the information exchange to be members of the service network. Another crucial issue with these conventional services was that they required the user to switch from their current address book to the one provided by the service. This step involved considerable switching costs for new users.

The founders believed that the symmetric nature of these existing networks limited their initial value. In turn, that limited value inhibited rapid growth. Therefore, the lack of rapid growth meant that the networks could not support their value proposition and, instead, tended to fall into disuse and ultimately fail.

The founders thus saw the need for a system: (1) not requiring membership in a private network as a prerequisite for providing substantial benefits, (2) not imposing significant

switching costs on adopters, (3) increasing the value of its service by rapidly acquiring new members, and (4) providing a global address book of members *and* non-members.

Plaxo's Service: Integrated and Asymmetric: One of the primary decisions for Plaxo management was whether to build a proprietary address book (technically easier) or simply integrate into an existing address book. Plaxo decided to integrate with Microsoft Outlook, the address book software that had the largest market share at the time. The user would continue to use Microsoft Outlook or Outlook Express as a contact management platform and only use Plaxo as an updating service. This minimized switching costs for users.

A second key decision was to design the service as an asymmetric network (Domingos 2005a, Domingos 2005b). Unlike a symmetric network, updates could be requested from users who were not members of the service. Using this approach Plaxo could deliver a high level of initial value even though most of the contacts in a user's address book were not part of the Plaxo network.

Figure 1 illustrates the difference in initial value provided by an asymmetric network compared to a symmetric one. The context is address book updating. Asymmetric network in its initial growth stage provides timely updates but only for a low percentage of contacts in a user's address book. When the symmetric networks grows and reaches saturation, many of the contacts in the address book are also members of the network. So a saturated symmetric network is able to provide timely updates for a high percentage of contacts in a user's address book. However, a symmetric network, in its initial stages has extremely low value because the number of people who are part of the network is quite small. Paradoxically the symmetric network is the right framework in the long run, but is not the right place to start.

An asymmetric network, on the other hand, allows users to obtain updates from other users who are not part of the network. The asymmetric network does tradeoff timeliness of updates for a higher coverage of contacts. This jump starts the initial value. Plaxo used email to create an asymmetric updating service. In the Plaxo system a user initiated update requests using email. Since email traverses proprietary networks, it enables updating across asymmetric networks. The melding together of a proprietary network and other networks using email differentiated Plaxo from previous approaches.

The inherently viral property of the Plaxo service suggested that viral marketing would be a good fit (Kempe, Kleinberg and Tardos 2003). In 2002, the Plaxo management team decided that instead of paid advertising, a viral campaign would establish the product and grow the user base. The company reasoned that as Plaxo users initiate update requests to contacts in their address books, they would expose and potentially convert these contacts to use Plaxo.

Having Built it, Will They Come?

Plaxo launched its service with a PR campaign. Next, attention was focused on seeding the network from the 'top' (Weidlich 2000; Kempe, Kleinberg, and Tardos 2003).

Venture Capitalists, who had big Rolodexes and were considered influential were signed up as the first users of the product. When these Venture Capitalists became Plaxo users, they sent out emails requesting updates to the contacts in their address books.

Figure 2 graphs new users gained per day over the first 6 months after the launch date of the product. As can be seen, there was a spike in new users that accompanied the product launch. However, this spike in new users soon dropped to a trickle. As people returned to work in January there was another brief spurt in new users. But this soon settled down to an average of 50 new users per day. At this rate, the company would acquire only 18,000 new users per year. Viral adoption of the product would not meet expectations and Plaxo might never reach the tipping point (Gladwell, 2000). Management was left wondering whether the initial strategy to rely on viral marketing was flawed.

The Viral Equation

The management team decided to take a closer look at their execution of Viral Marketing. Intuitively it seemed that as long as every new user was able to bring at least one other new user, the user base would continue to grow. The number of new users that a current user could bring to the user base, in turn, depended on the number of update requests sent out by the user (N) and the conversion rate (Cr) of those requests into new users. This intuition was formalized into the following equation:

$$\text{Viral Index} = V = N * Cr \geq 1$$

This simple equation proved to be a powerful diagnostic for Plaxo managers. The Viral Index V indicates the relative size of each new generation of customers compared to the previous period. For example when $V = 1.1$ each new generation of customers is 1.1 times the size of the previous generation. When $V < 1.0$, each new generation is smaller than the previous one and the number of new customers eventually goes to zero. V is indeed a magic number and $V=1$ a magic threshold. In an Internet marketing context, the viral equation can be implemented in a straightforward manner by regularly collecting information on N and Cr from the company's web infrastructure. Managers at Plaxo calculated V at regular intervals and thereby monitored the traction of the viral engine.

We can confirm that viral growth requires $V \geq 1$ by generating cumulative adopter curves for different values of V. The cumulative adopter curve can be generated using N and Cr in the viral equation². Let us suppose that on average each Plaxo user sends out update requests to 5 people (N=5). Suppose also that each recipient of an update request has a 50% chance (Cr=0.5) of signing up to use the service. In this example, $V = 5 * 0.5 = 2.5$. If Plaxo starts with 10 people, then the successive generations of new adopters look like this:

Generation 1: 10 new users sign up and send 50 update requests

Generation 2: 25 new users sign up and send 125 update requests

² Godin (2000) provides a similar example in the context of a greeting card company.

Generation 3: 63 people sign up and send 315 update requests.

Notice that the second generation is 2.5 times the first generation and the third generation is 2.5 times the second. This is consistent with a V of 2.5.

Figure 3 uses this approach to generate and graph data on the cumulative number of new customers for each time period based on four different viral equations. For $V=0.99$ the cumulative growth curve peaks out and growth stalls. This would be the case for all $V<1$. For $V = 1$ the user base grows, but in a linear fashion. For values of $V>1$ we see non-linear growth. In fact even for a value of $V=1.01$, which is barely greater than 1, we get exponential growth. In this sense $V=1$ is indeed a magic threshold. Finally Figure 3 shows the difference between two curves, both with $V=1.1$ but one with $Cr=0.202$ (20.2%) and the other with $Cr = 0.35$ (35%). Even though the viral index is the same for both curves, the curve with a higher Cr grows much faster indicating that the conversion rate is relatively very important.

Linking the Viral Equation to Product Features

This decomposition of viral growth was a powerful breakthrough for Plaxo. It allowed management to focus on product features that influenced N and Cr . Figure 4 links the two key metrics in the viral equation to different product features. The viral marketing problem was transformed into a product features and design problem—aspects under the control of management.

Figure 5 is “The Address Book Status” screen which motivates the user to send out emails (Phelps et. al 2005) for contact update information. It provides a crucial statistic, namely the percent of contacts that are currently out-of-date. This screen also informs the user with notification of any pending update requests and the status of these requests. These features serve to motivate the user and are a call to action. They influence N in the viral equation.

Figure 6 is the “Personalizing Message” screen. The features on this screen affect conversion rates (Cr), which is the other crucial metric in the viral equation. The effect is two-fold, first it comes from a friend or associate of the individual (rather than from Plaxo), and second it contains a customized message that is composed directly for that individual by someone who knows him well (certainly better than Plaxo anyway). Everett Rogers (1995) has argued that mass media channels are relatively more important in generating awareness of an innovation, whereas interpersonal communications are important for persuasion. Hence the persuasive value of person to person emails and the potential value of personalization.

Figure 7 is the “Update Contact Wizard” and shows a screen shot of Step 1 in Plaxo’s update sequence. A Plaxo member uses this screen to select who should be sent an update request. Users can select contacts on a “one by one” basis but there is also a “check all” feature, the latter of which maximizes the number of update requests sent out (maximizing N).

Plaxo also has a feature that scans emails to find addresses in the headers and footers of emails. Syntax checking algorithms are applied to eliminate invalid emails, and to avoid duplication with emails addresses already present in the address book. The edited set of email addresses are presented as an additional set of contacts under the address book. This feature provides the Plaxo user the convenience of automatically extracting email addresses that are not in the address book. This set of contacts extracted from email would typically be incomplete, not including other relevant information such as addresses and telephone numbers. Hence this set of contacts would benefit significantly from an update request. From a Viral Marketing perspective this feature has the powerful effect of expanding N.

While maximizing N is desirable from a viral spreading perspective, it does lead to the possibility of many inappropriate emails being sent out. As one of the founders points out:

“There is a lot of junk in peoples’ address books. By ‘junk’ I mean people that the individual barely knows. Over time old entries may be people the individual doesn’t even remember any more. When Plaxo users decide to send out update requests to their whole address book, that includes emails to the junk part of the address list.”

In order to provide the user a way of checking on the number of emails being sent out, Plaxo provided a bar chart that ranks the frequency of past communications with each contact (See right panel of Figure 7). The frequency chart feature also allows Plaxo to capitalize on the ‘strength of strong ties’ (Barabasi 2003). The logic is that contacts with a high frequency of communications could be strong ties and the update requests would potentially have a high impact on them, thereby providing a higher conversion rate (Cr).

Plaxo also provided a “Review Selected Contacts” screen (not shown) that reconfirmed to users the contacts (names and number) being updated. This allowed users to catch and fix unintended errors before they sent the update requests.

Tinkering at the Margin with Natural Selection

Figure 8, Screen a, shows one alternative of the “Presentation of Update Request” screen. This is the screen that the contact sees when he or she receives the update request. The user’s information was provided in a business card format that includes reply buttons to “change” or “confirm” the information.

Figure 8 shows the subtle differences between alternative screens (screen a vs. screen b) for “Update Request” email messages. The screen b alternative showed a card with

business and personal information and a stand-alone “update” button. These messages are examples of many more subtle changes that altered different features of the pages. Many versions of these pages were deployed simultaneously and the company used field experimentation to select the winning combination of features.

Once the contact finished updating or confirming the information, he or she is shown a confirmation page. Plaxo used this page not only to confirm that the update was complete but also to present a message inviting the contact to join the Plaxo service. This was the one opportunity Plaxo had to display an explicit marketing message and hence was referred to as a ‘Sell Page’.

Figure 9 provides an example. This sell page is crucial for viral adoption. Plaxo experimented with a number of versions of this page to discover pages with high conversion rates. As these descriptions show, many of these changes were subtle and are “tinkering at the margin”. *A priori* it would be difficult to determine which versions would work better. Plaxo’s approach was very data driven. The company experimented with the alternative versions to see which performed better over the short term and the medium term.

Figure 10 presents a conversion rate table for different web page versions. The company measured conversion rates over a short duration (-2 days), medium duration (7-14 days) and longer durations (7-35 days). For these web pages, conversion was measured based on the degree of accomplishment of the intended purpose of each web page. For example, Presentation of Update Request pages were intended for users to request updated information via email to non-users and possibly download the client software and launch the service. On the other hand, alternative pages for Updating Information were for the user to update their own contact information.

Figure 11 shows the results obtained with this reasoned experimental approach. Eventually around May 21, 2003 the number of email update requests (N) tipped.

Figure 12 charts conversion rates over time. The 7-14 day conversion rate, which initially had high variability moved above 1.0 during the week of July 2, 2003 and developed a rising trend. This demonstrates the effect on Cr of iterative experimentation.

To summarize, Plaxo found that its viral engine did not grow automatically. Management developed a viral equation to identify the various product features³ that would affect the components of viral growth. Management then took a very data-driven, adaptive experimentation approach to select among various versions of product features.

³ Emanuel Rosen (2000) identifies product features that people “buzz” about.

The Ebola Syndrome: Aggressive Growth Creates a Backlash

There is a myth that the infamous Ebola virus does not spread more widely because it kills off its host too quickly. Any reduction in trust of the Plaxo service might threaten to kill off new adoptions, which might stop the viral spread much as in the Ebola syndrome. Aspects of the Plaxo product, the viral model and the environment combined to create trust problems for Plaxo.

In reality, Plaxo was a proxy, collecting information on behalf of its users. It was important to make sure that non-users had the perception that they were updating their friend's address book, and not Plaxo. However, frequent exposure to Plaxo messages and branding started to have the unintended effect of creating the wrong impression. As the founders explained

“Where the viral model can go wrong is when you get numerous requests coming close together with the same Plaxo branding on the messages. Then the non-users start feeling that they are updating Plaxo when they really only want to update their friend.”

Thus the viral engine can be too aggressive and stimulate too many outgoing emails. At first thought, this might be stimulating the non-user to join Plaxo, but actually, in some instances, it serves instead as motivation to *not* join the service.

One blogger suggested that since Plaxo did not seem to have a revenue source that the company must be selling personal contact information to third parties. Other companies such as Gator, at the time, were being accused of doing this. Figure 13 provides an example of a negative blog.

Unfortunately for Plaxo, an email asking for personal contact information is a key tactic for an identity thief. In fact, a special term “phishing” (as in “fishing for information”), has developed to describe the practice⁴. Therefore, when there are a number of Plaxo emails being sent, it is easy to get apprehensive that someone is phishing. Even if the email is from a trusted contact the information might still be hijacked by someone surreptitiously reading that email. With concerns of identity theft on the rise at the time of the Plaxo launch, this concern was being magnified.

Plaxo also sent tracking information to users to convince them to join. Inadvertently this created a perception of a violation of privacy. As the founders explained:

⁴ Wikipedia defines phishing as “a form of social engineering, characterized by attempts to fraudulently acquire sensitive information, such as passwords and credit card details, by masquerading as a trustworthy person or business in an apparently official electronic communication, such as an email or an instant message. The term phishing arises from the use of increasingly sophisticated lures to “fish” for users’ financial information and passwords.” www.wikipedia.org, accessed 2/26/2006 8:25:06 PM PST.

“In the update that we used to send, the update request said something like ‘You have received 11 update requests. You should join Plaxo, and then you wouldn’t have to do all this updating.’ But we learned that this just turned off the non-user all the more because we were telling them that we kept track of how many messages they were getting. It came across as very *big brother*.”

Plaxo’s original approach was to maximize the number of outgoing emails to stimulate the most growth. However, this approach created the perception of Plaxo as a SPAM generator. The founders explained:

“When someone leaves a company they often send out their updated contact information. With Plaxo, the updating is so easy that far more contacts are included. Some sales person might have 5,000 individuals on their contact list, so imagine what happens if they change a cell phone number and decide to update everyone in the list with that information. Some of those 5,000 contacts are not going to even remember the person.”

Non-users can get annoyed because they get little perceived value from their updating efforts. This is exacerbated by the frequency of requests and heightens the perception of these requests being SPAM-like. Plaxo messages can also cause a workflow diversion. Many people attack their email stream with a “get through it” attitude. Going through the whole updating process during an email session heightens the perception of SPAM, it being an unwelcome interruption at that time.

Striking the Right Balance

In November, 2003, Plaxo hired a Privacy Officer. His assignment was to build trust among the community. The key actions taken by the Privacy Officer included toning down the product features, providing a netiquette policy, addressing security concerns, better clarifying the privacy actions and then communicating the new policies quickly and broadly.

Among the product changes was a modification to make the contact wizard less aggressive. In the initial design, when the software was installed, the “update contact wizard” was automatically launched. The initial screen came up with all the contacts highlighted and a button encouraging the user to update contacts. As users quickly went through the steps, the system would blast out an email to everyone in the address book; often hundreds of messages. While this is very viral in terms of maximizing N in the viral equation it can cause trust issues (and the Ebola syndrome) in the long run. In the newer versions of the software this “send all” option was removed. Instead, a chart was added to inform the users of how frequently they had been contacting each person in their address book. The user was then expected to select those at the top of the frequency-of-contact list, individuals to whom they would have strong ties.

The company also developed a policy on “Proper Netiquette for Plaxo Members” (See Figure 14) trying to encourage them to maintain proper empathy for their contacts as they sent out update requests. Members were advised to: a) Not publicize a business or event on Plaxo, b) Send update requests only to people who clearly know them and would want to receive their information, c) Personalize the update request, d) Make sure to provide plenty of information about who the requester is, and d) Respect others’ privacy and not bombard them with multiple update requests.

The company developed a “privacy and security” page, along with a privacy comparison matrix. The sell page also was changed to contain a statement to the effect that “Plaxo is very concerned with your privacy”.

To counter phishing fears and to provide a secure environment, the company implemented several security services (e.g., VeriSign and eTrust), and began to state all this clearly and often to the bloggers, on the Plaxo web page, and in the update request emails themselves. The messages also informed users that privacy policies are enforced by the FTC and not following them would lead to federal prosecution of Plaxo.

The privacy officer became very active in the blogosphere, in user forums, and on Plaxo’s own web-page. Web-alert services were used to notify the company immediately of negative posts. The privacy officer made it his practice to respond to these quickly. He was able to contact many key bloggers and journalists and succeeded in turning several of them from critics into supporters of the company.

Plaxo also discovered that some small percentage of users were generating the most complaints and problems for the service. These “bad apples” would send update requests to thousands of users at a time and more frequently than a casual user. Since most users would use the service responsibly, a small number of bad users would generate a huge amount of e-mail and detract from the overall value of the system. Plaxo added in automatic throttling features to limit the number and frequency of update requests and proactively disabled these problem users.

These sophisticated and nuanced actions allowed the company to sidestep the Ebola syndrome. In the months following these actions, negative posts about Plaxo declined dramatically compared to the previous months. The hockey stick growth continued with the company growing to 15 million users by August 2006.

Key lessons

With the decline in effectiveness of traditional advertising, and fundamental changes in the media landscape, marketing managers are turning to internet based techniques such as viral marketing. Since viral marketing does not require any media spend, it is very tempting. However this study suggests that Viral marketing is hard work. Instead of marketing dollars, it requires ingenuity, tenacity and attention to nuances.

This study provides a number of important lessons about Viral Marketing. First and foremost, it shows even when a product is inherently viral, viral growth is not guaranteed. It can require active management. Our findings support the arguments provided by others before us (Godin 2001, and Wilson 2000), that managerial action can impact the success of a viral campaign. For example, Godin (2001) notes “it is possible to dramatically improve the chances that [an] idea virus will catch on and spread”.

Another important lesson learned is the fact that readiness of the viral engine is perhaps the most important and primary aspect of any viral marketing campaign. After the viral engine is ready, the network should be seeded. One road to failure, as Plaxo almost learned, is to reverse any part of this priority sequence such as seeding the network before the product features are adequate. This priority sequence does not seem to be appreciated in the literature (Rosen 2000).

The concept of a viral equation is not new. It has been articulated as a mathematical description of how a virus-like spread occurs in a social system (Granovetter 1978, 1983 and Schelling 1972, 1978, Miller, McIntyre and Mantrala 1999). However this case study shows that the viral equation can be implemented to diagnose and improve the health of the viral engine in two broad steps. First, the two key metrics in the viral equation can identify product features that impact viral growth. Next, these features can be improved quickly and incrementally using a process of iterative experimentation.

In viral work, the customer conversion rate needs to be the focus of attention. Anemic conversion can not ultimately be overcome with massive messaging. Plaxo learned that turning up the volume (high N) meets resistance and further depresses conversion creating a downward spiral. While the viral index V must be greater than the magic threshold of 1.0, this can be achieved with many combinations of C_r and N , in the short run. But for longer run success, it is raising C_r that provides for healthy growth.

In the case of Plaxo small and subtle changes in features had a big impact on growth. An important lesson here is that managers should not underestimate the effects of ‘tinkering at the margin’. Quick and iterative experiments seem to be well suited to identifying improvements. This tinkering at the margin requires an extreme level of synergy between marketing and product management. In Plaxo’s case this co-ordination was achieved by tasking a single individual with both product development and customer growth.

Articles on viral marketing have tended to focus primarily on how to grow the customer base. They have ignored the possibility that viral campaigns can create negative effects such as perceived violations of privacy. This case study is unique in its analysis of the occurrence and nature of negative effects. The case study shows that monitoring blog postings for negative perceptions can be fruitful. Managers should appreciate the distinct and complementary nature of the information obtained from iterative experimentation versus those from blogs. The former improves product features for growth, the latter provides the feedback loop as to how growth objectives should be balanced against

negative perceptions that viral campaigns can create. As the case of Plaxo demonstrates, this type of information is useful in overcoming the Ebola syndrome in viral marketing.

Conceptually it seems that the viral equation can be applied to the context of several other Internet companies. However, in depth case studies of other companies are required to determine what aspects of the Plaxo experience will generalize. In the meantime, this article should be a useful starting point for marketing managers.

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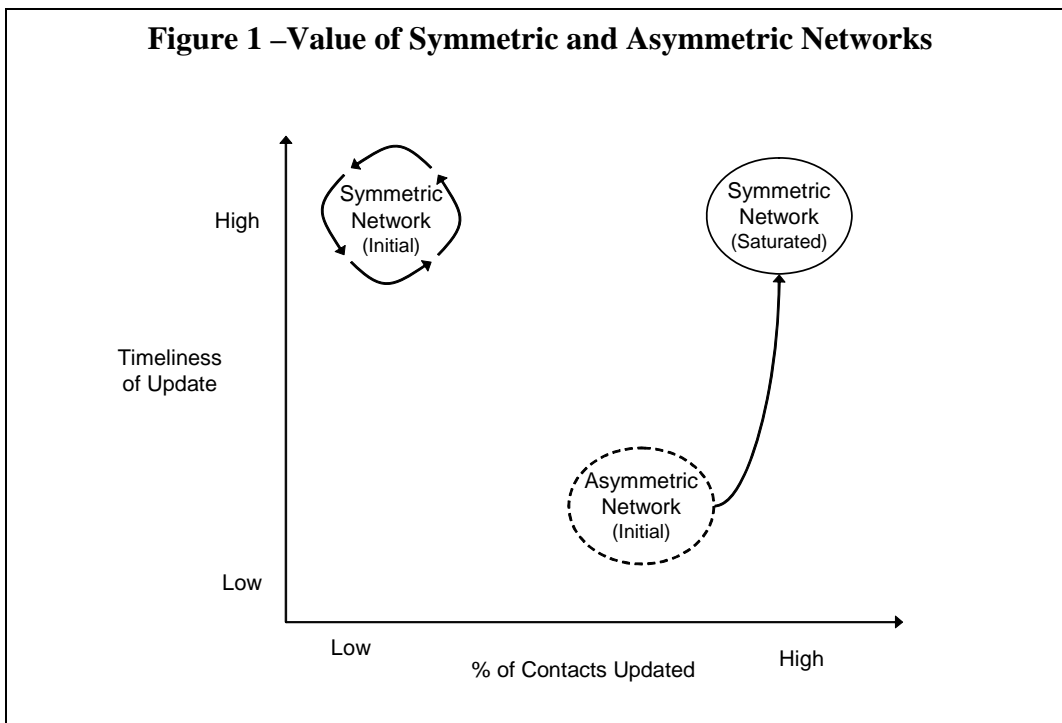
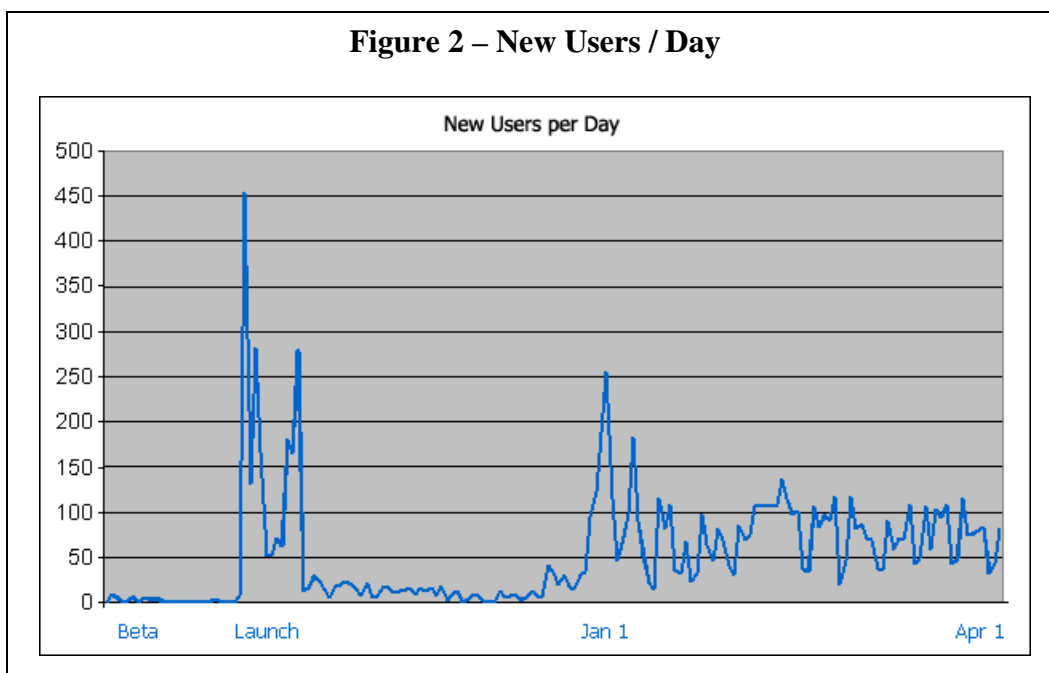
Figure 1 – Value of Symmetric and Asymmetric Networks**Figure 2 – New Users / Day**

Figure 3 – Graph of Cumulative Number of Adopters

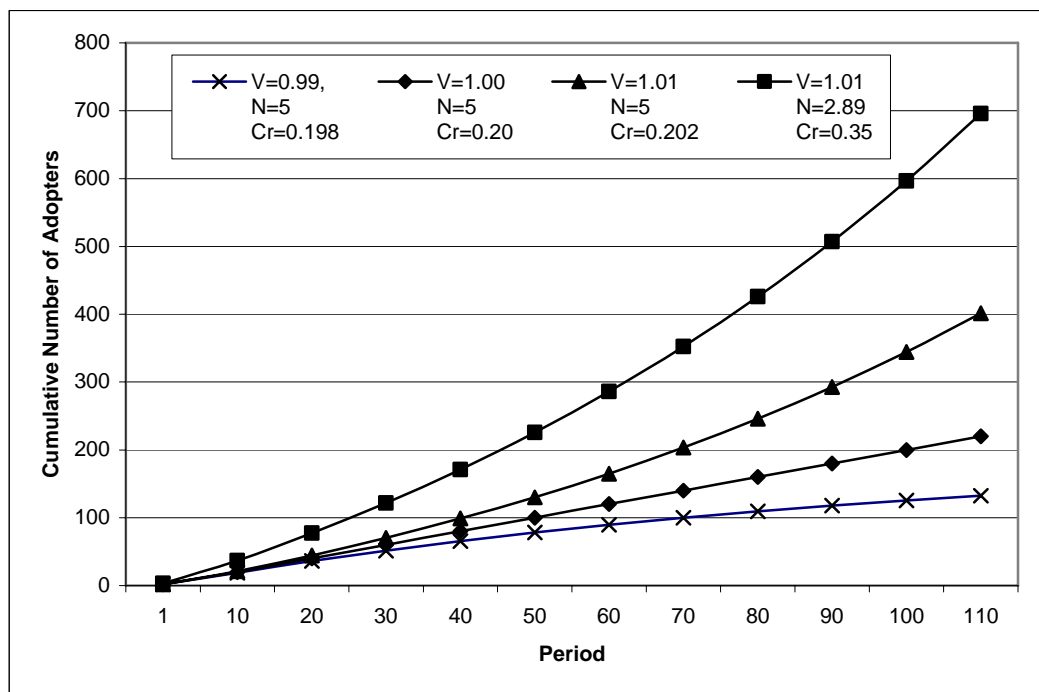


Figure 4 – Plaxo’s Viral Equation

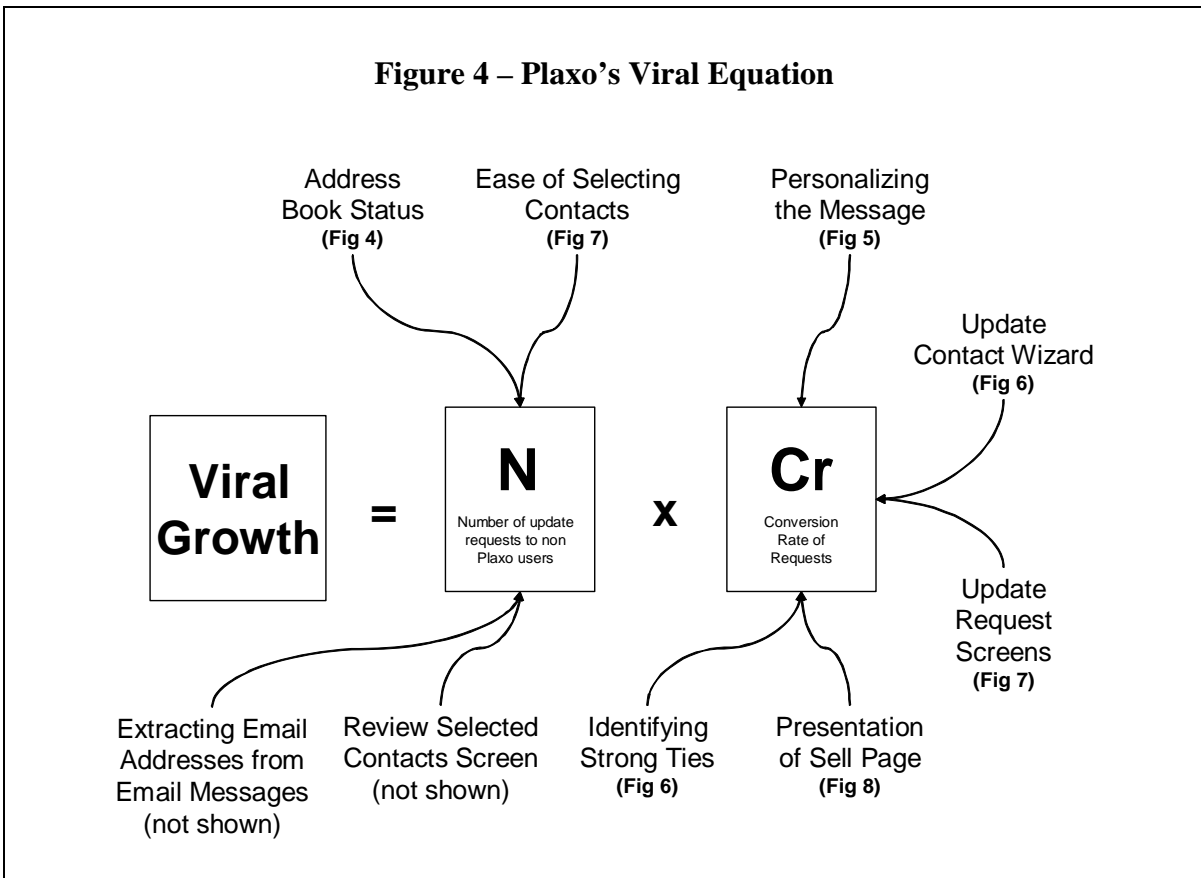


Figure 5 – Address Book Status

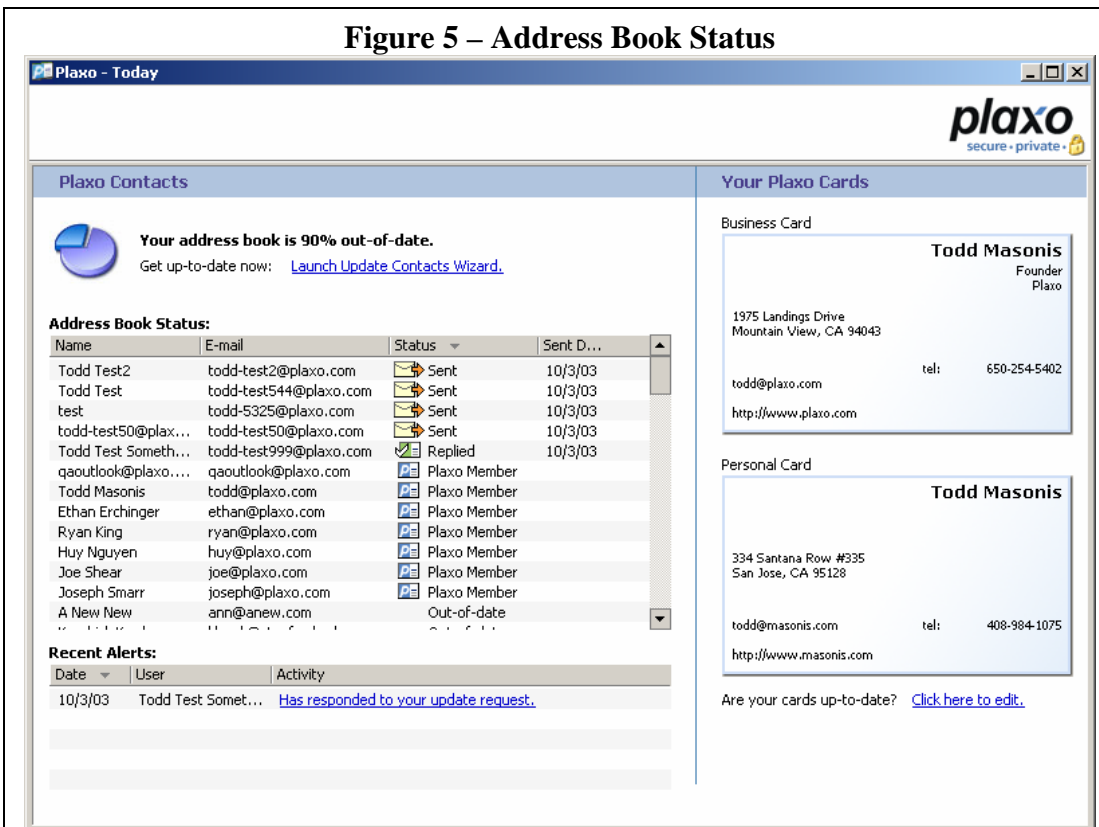


Figure 6 – Personalizing Message Screen

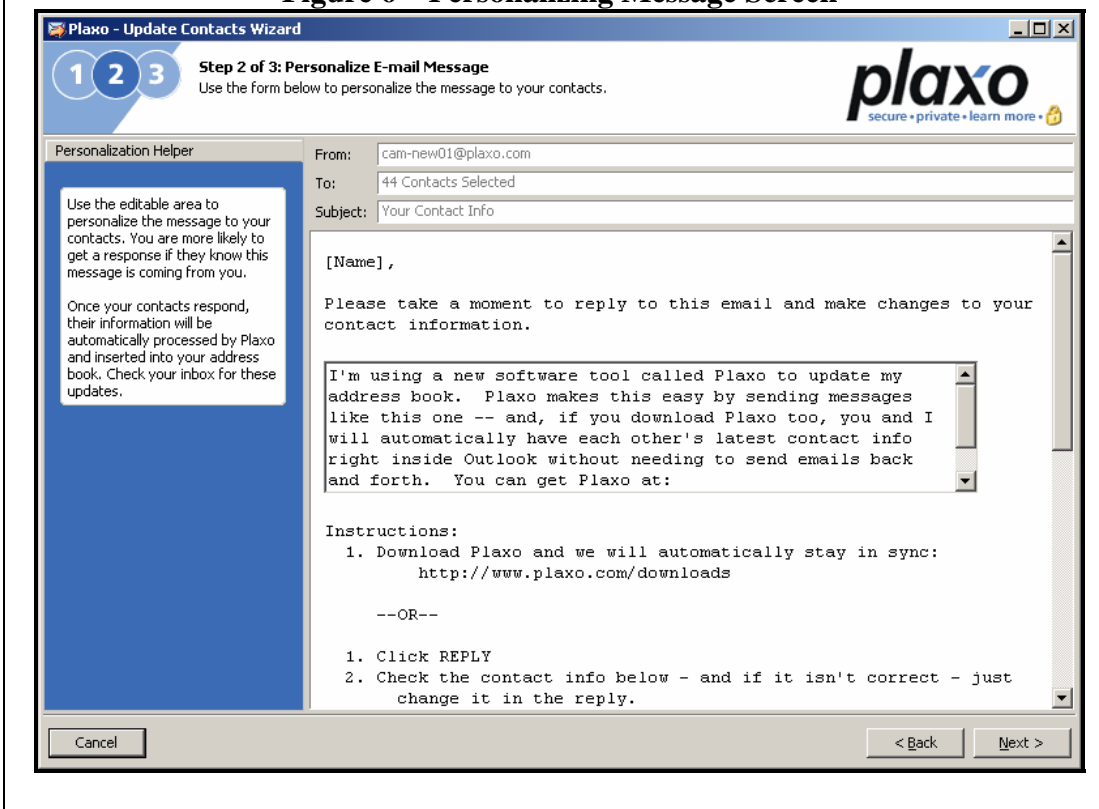


Figure 7 – Update Contacts Wizard

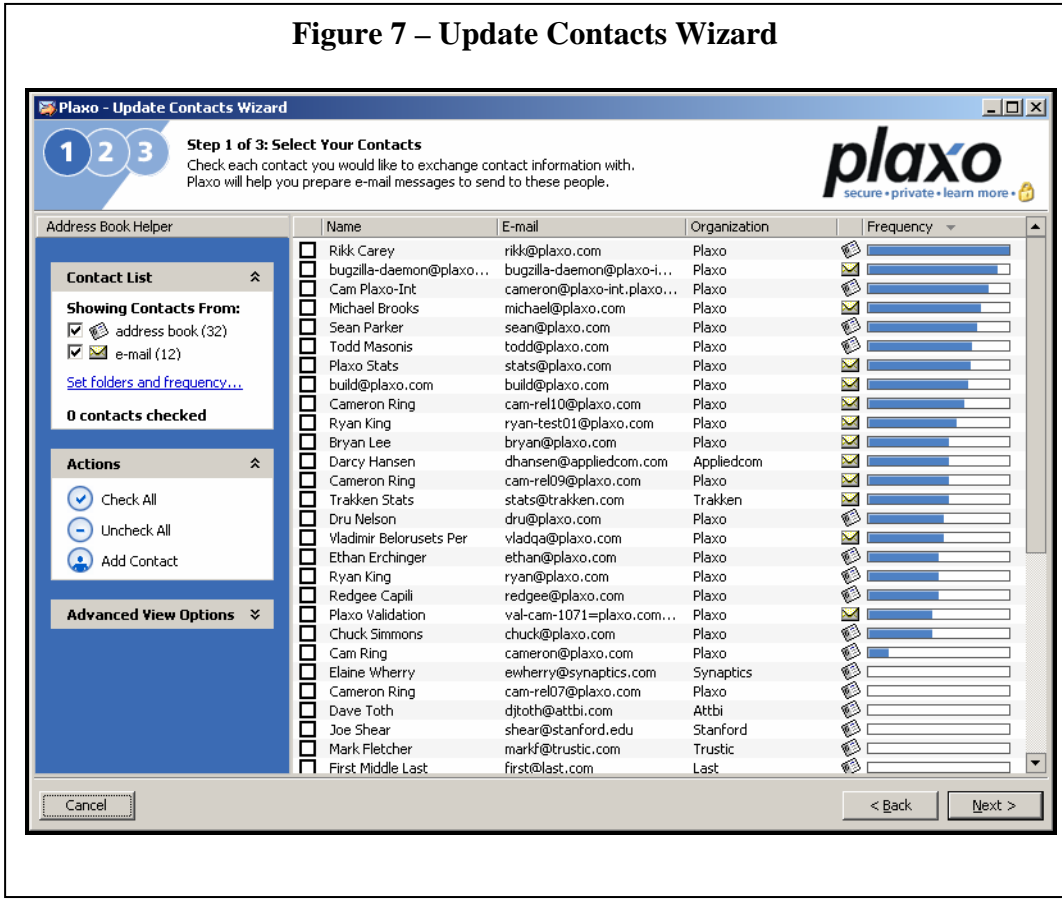
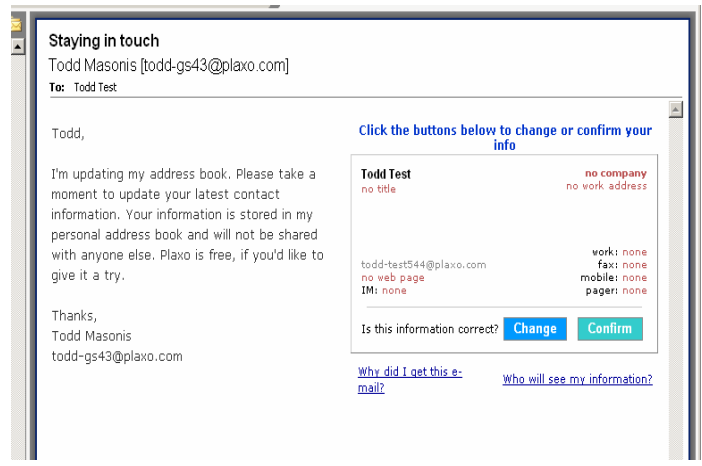


Figure 8 – Subtle Differences in Update Request Screens

Screen a



Screen b

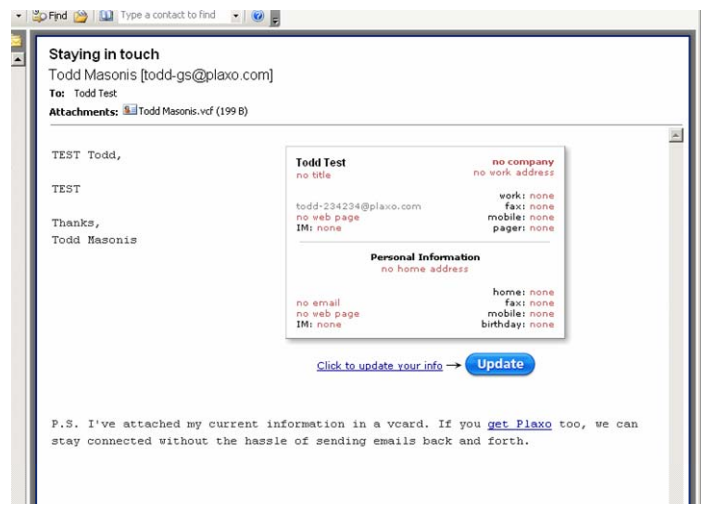


Figure 9 – A Plaxo “Sell” Page

plaxo Home Download Products Partners Support About Us Contacts Sign In

Thanks for updating your contact information

If you had Plaxo, our contact info would automatically stay updated!

My Contact Info
Mary Johnson
1545 Riverside Blvd.
Cambridge, CA 94715
230-555-5612

Your Contact Info
Mike Adams
524 Baker Street
Boston, MA 02111
605-555-3465

Integrated w/Outlook

Stay current with other Plaxo users

Responds to requests from others

Access your web address book

Get Plaxo Now

Plaxo takes privacy very seriously — your information will not be shared with anyone without your permission. If you don't have Outlook or Outlook Express, [click here](#) to get Plaxo web-based auto-reply.

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Figure 10 – Conversion Rates for Different Versions of Web Pages

| Combo Conversion Rates by Template | 1-2 Day Conv. Rate | | 7-14 Day Conv. Rate | | 7-35 Day Conv. Rate | | Total Conv. Rate | |
|--|--------------------|--------|---------------------|--------|---------------------|---------|------------------|---------|
| su_default_nlp,hdf1 | 0.78% | 37928 | 1.93% | 173387 | 1.88% | 619840 | 2.93% | 2192938 |
| su_htmlsimple_web,hdf1 | 0.88% | 136475 | 1.55% | 662155 | 1.25% | 2073468 | 1.98% | 8064819 |
| su_htmlsimple3_web,hdf1 | 0.19% | 12377 | 1.02% | 11650 | 0.92% | 44951 | 2.02% | 379673 |
| su_htmlsimple4_web,hdf1 | 0.87% | 115560 | 1.61% | 576875 | 1.44% | 1683112 | 1.81% | 3284360 |
| su_htmlsimple5_web,hdf1 | 0.67% | 13937 | 1.12% | 75152 | 1.06% | 212550 | 1.25% | 319162 |
| su_htmlsimple_footer_noadd_nobanner_web,hdf1 | 0.47% | 6528 | 1.33% | 18449 | 1.33% | 18449 | 1.15% | 48518 |
| su_htmlsimple_footer_noadd_web,hdf1 | 0.78% | 4382 | 1.39% | 16169 | 1.39% | 16169 | 1.18% | 44832 |
| su_htmlsimple_footer_web,hdf1 | 0.34% | 6116 | 1.23% | 16116 | 1.23% | 16116 | 1.06% | 49633 |
| su_default_aol,hdf1 | 0.37% | 2414 | 1.03% | 12186 | 0.84% | 37778 | 1.07% | 102845 |
| su_htmlsimple_aol,hdf1 | 0.23% | 7033 | 0.40% | 41119 | 0.36% | 117479 | 0.53% | 385866 |
| su_htmlsimple3_aol,hdf1 | 0.36% | 276 | 0.30% | 328 | 0.29% | 2049 | 0.61% | 11875 |
| su_htmlsimple4_aol,hdf1 | 0.16% | 6796 | 0.49% | 36678 | 0.43% | 104433 | 0.52% | 194136 |
| su_htmlsimple5_aol,hdf1 | 0.23% | 882 | 0.46% | 4106 | 0.45% | 11938 | 0.45% | 19362 |
| su_htmlsimple_footer_aol,hdf1 | 0.41% | 246 | 0.16% | 1248 | 0.16% | 1248 | 0.36% | 3312 |
| su_htmlsimple_footer_noadd_aol,hdf1 | 0.82% | 243 | 0.23% | 878 | 0.23% | 878 | 0.33% | 3074 |
| su_htmlsimple_footer_noadd_nobanner_aol,hdf1 | 0.60% | 334 | 0.69% | 1018 | 0.69% | 1018 | 0.48% | 3120 |

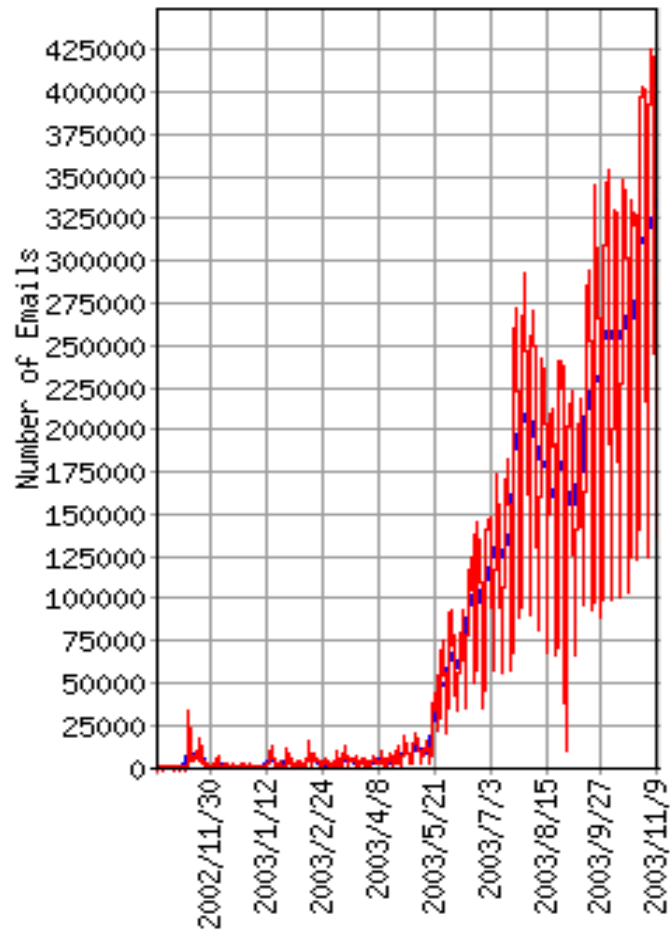
Figure 11 – The Growth in the Number of Update Requests

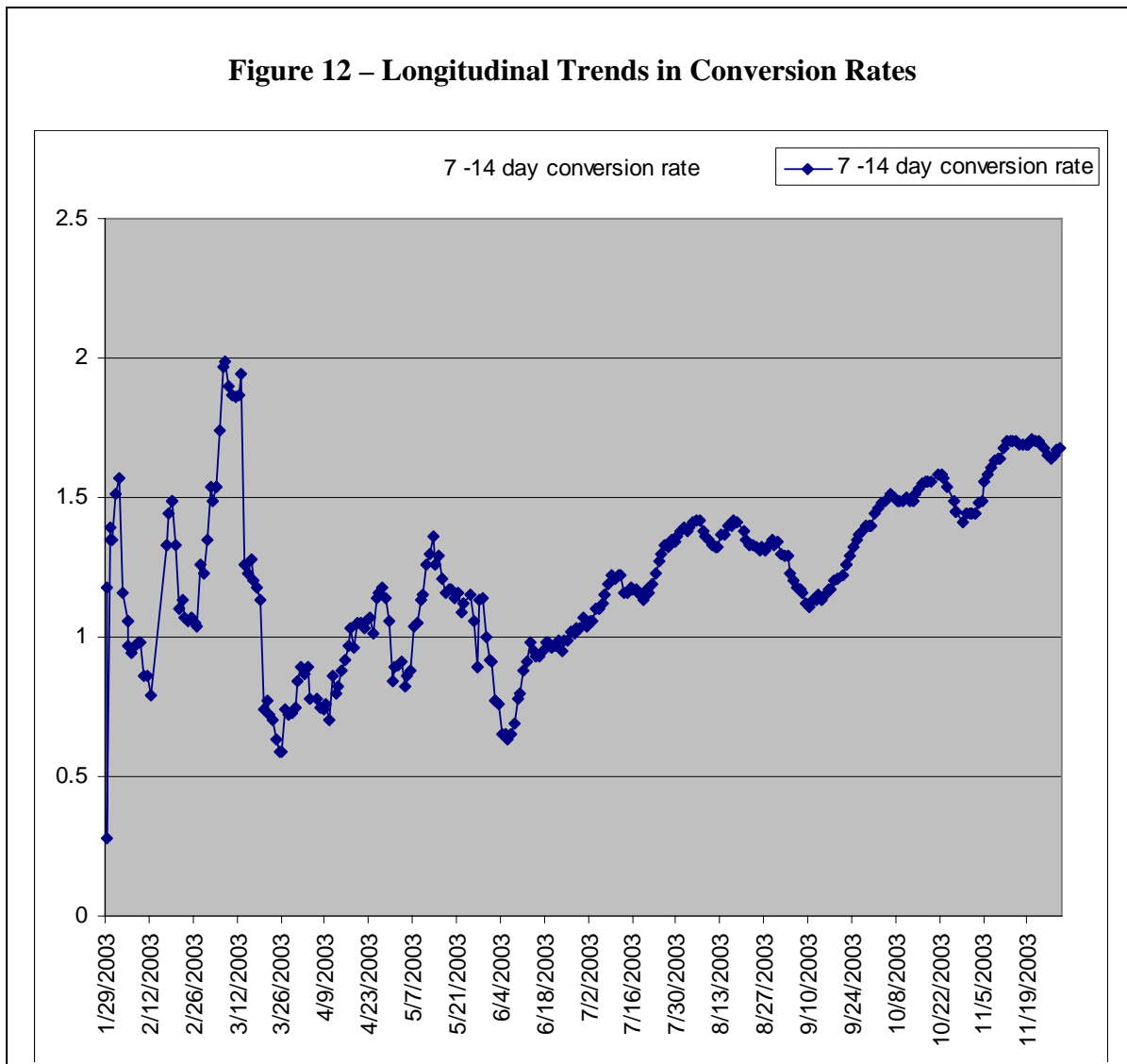
Figure 12 – Longitudinal Trends in Conversion Rates

Figure 13 – Examples of Negative Blogs

Plaxo is a mean system and should not be supported. It requires you to "opt out" separately for every person who might Plaxo you. That is ludicrous! There should be a law that requires a "global opt out" option. I've received many Plaxo requests and they are almost all from people who've never personally emailed me, let alone taken time to talk to me. Why on earth do they need my contact information I don't know. Especially because it's not hard to find. Plaxo is a very selfish, egocentric way to run one's personal world. It's basically a spam system fueled by vanity and self-importance that bludgeons people into participation. That's almost as bad as Google holding a cache of the entire Internet but not allowing anybody to scrape its pages. There's a simple rule: Do to others as you would have them do to you. Plaxo and Google have launched a new morality: Be so powerful as to get away with stuff that nobody can afford to let you not get away with. Oh, may you crumble and I tread on your ruins and celebrate with the free people we shall all be. I think these corporations are all nests for demons, empty shells, vehicles for eliminating responsibility, genies who have all the rights of humans with none of the moral responsibilities. Corporations - you will serve mankind in hell as the self-destructive machines that consume all wicked fictions. Thank you, and With best wishes.

Posted by: [Andrius Kulikauskas](#) | [November 3, 2005 07:56 PM](#)

Same thing happened to me this week. Someone asked me to update my info, and when I did, holy crap, it sent it to everyone I'm linked to and it's been too long for me to know who that is. And since I had changed some stuff I wouldn't have changed if I had known it was being transmitted to the Pope and his wife, I was a bit chaffed as well.

Posted by: [jeneane](#) | [November 3, 2005 11:35 PM](#)

Figure 14 – Netiquette for Plaxo Members

Proper Netiquette for Plaxo Members

Plaxo is committed to helping you become a better member of the digital world. Below you'll find a few tips and suggestions on how to make the best use of Plaxo.

- **Just the facts.** Update Requests have two purposes: 1) providing your contact information and 2) requesting updated contact information. If you need to publicize your business or event, find another way to advertise. Update Requests with solicitations or advertisements only give the rest of us with good manners a bad name. Plus it's a good way to get booted off the Plaxo service in a hurry.
- **Know who you want to know.** Only send Update Requests to people who clearly know you and would want to receive your information. You may have saved the information of someone you briefly met at a business meeting or from a collection of business cards you acquired at a tradeshow. Think twice about sending Update Requests to these types of contacts. You may want to know them, but the feeling may not be mutual. Without taking proper care with your Update Requests, you could end up seeming like a nuisance or even (gasp!) a spammer.
- **The personal touch.** Personalize your Update Request with your own words. Plaxo does provide generic standard text, but don't you prefer a personalized message over a standard statement? So do your contacts.
- **Tell them who you are.** When you send Update Requests, make sure to provide plenty of information about who you are in your [Plaxo Cards](#). Even better, when you personalize your message, tell them how they know you (e.g., we went to high school together, my new information includes my new last name). Details help your contacts to feel more comfortable and they are more likely to respond to your Update Request with their own update. In addition, they allow your contact to also benefit from your message because they now have all of your updated info. Now that's just good manners.
- **Respect others' privacy.** If you've sent two Update Requests to your friend and they haven't responded, chances are they have their reasons. Maybe they don't like using e-mail; maybe they don't like you. Bombarding them with multiple Update Requests won't change their mind. Trust us. Why don't you pick up the phone and call?