IS THERE SUCH A THING AS 'EARLY ADOPTERS FATIGUE'?

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Consumers must continue to adopt new technologies in order for the promise of "convergence" to be realized and to continue driving the engines of the world's major economies. This paper uses the "Diffusion of Innovations" model to explore the concept of new technology adoption by consumers, in light of recent reports that the Early Adopters are becoming fatigued with the fast-paced rate of technological change. By examining Early Adopters of new technologies from a number of countries, an understanding can be gained of whether fatigue has set in, how, and why.

INTRODUCTION

Consumer purchases of any new product or new service require the consumer to change in some way. So influencing consumer purchasing decisions involves convincing the consumer to undergo a behavioral "adoption" change. This change could be small, such as the normal upgrading of a product that does not require a change of behavior ("continuous innovation"). This change could be large, such as switching to a new product that requires a major adaptation of the consumer's behavior, or requires modification of other products or services that the consumer uses ("discontinuous innovation"). Sometimes the behavioral change can be enormous, requiring the consumer to scrap former products and behaviors altogether ("disruptive innovation"). Just as the behavioral changes required by adopting new products vary, so consumer attitudes toward this kind of change vary significantly. Nowhere is this seen more clearly than in consumer attitudes toward technology adoption. Even upgrades or continuous innovations can be challenging to consumers, because technological difficulties involved in upgrading can be much more difficult than, for example, simply buying a better coffeemaker.

But many of today's technology companies' very business models depend upon promoting the idea of "convergence," which means trying to convince consumers to adopt challenging upgrades, if not downright discontinuous and disruptive innovations. Technology consultant Andreas Pfeiffer, author of the *Pfeiffer Report*, has concisely articulated the concept of convergence:

> *"The boom of the digital economy was very much based on the underlying idea of convergence: the new technology was considered a revolution because all of these different pieces of hardware, software, and networking equipment would eventually talk to each other, integrate harmoniously into a coherent whole which would make all of our lives simpler and better."*

Many of the newest communication technology products aimed at consumers, including broadband, wireless, mobile (as well as the devices that make them work and work with them), are interrelated as the future vision of the wirelessly networked world of convergence has promised, with resulting complexities of adoption.

However, an international slowdown in the adoption of consumer technology products appears to be in progress. After rapid growth during 1998, 1999, and the first half of 2000, sales of technology products began to slow in 2001 in the United States, Europe, and parts of Asia.[1)] Was this slowdown merely the result of slowing worldwide economic growth, or were other factors at work? A number of articles[2)] have been published in 2001 questioning whether formerly enthusiastic technology consumers are now burned out or fatigued.

Some of these articles have postulated that it is simply the economic slowdown that has made consumers slow their spending on communication technologies. But others attribute that same spending slowdown to "fatigue," that is, the idea that the very consumers who are the quickest to buy new communication technologies are now tired of the constant cycle of upgrades and replacements for technologies that, in fact, still work. A review of these articles resulted in this list of symptoms of consumer fatigue: lack of demand for new technologies; consumer uncertainty regarding new technologies; consumer frustration with poor service from new technologies; lack of understanding by consumers of the benefits of new technologies; consumer fears about the security of personal information online; and consumer disillusionment with the overall promise of new technologies.

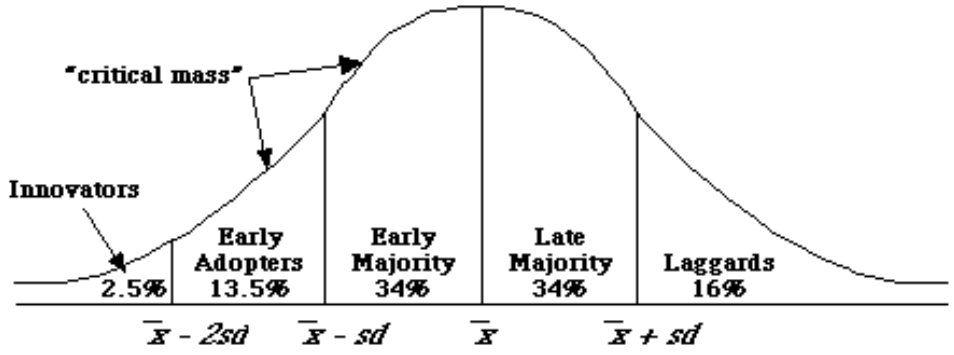
The question we attempt to answer in this paper is whether the same consumers who were the fastest to buy new communication technologies in the past are now "fatigued" (as defined above) or not. Additionally, is this "fatigue" equally prevalent everywhere or just in some countries?

THE DIFFUSION MODEL

There have been many published studies of how consumers adopt new innovations, and how to market technological change to consumers. Nearly all of these use the Diffusion Model to describe and analyze this process of change.[3)] The Diffusion Model holds that adopters of innovations can be placed into categories depending upon the sequence in which they adopt new products or new technologies (i.e., depending on whether they are relatively earlier or later in adopting new ideas than the other members of the same social system). (Rogers, 22)

According to the model, an innovation is completely diffused when it has been adopted by 100% of the members of the social group to which it has been introduced. And the adopter categories themselves – measures of the degree to which individuals are willing to be among the first to adopt an innovation – are largely determined by the percentages in which the adopters fall. Despite the fact that diffusion research has been performed in many fields and on social systems all over the world, the category names and descriptions, and their placement on a bell-shaped, normally distributed curve, remains constant throughout the research. Figure 1 illustrates the Diffusion Model's Adopter Categorization Curve.

Figure 1
ADOPTER CATEGORIZATION CURVE



Diffusion of Innovations, Everett M. Rogers

ADOPTER CATEGORY NAMES AND BASIC PROFILES

- *Innovators.* The first 2.5% who adopt a new technology have been described in the research as "venturesome," almost to the point of obsession, and willing to absorb high costs and uncertainties for the reward of being first to adopt new technologies (Rogers, 263-264).
- *Early Adopters*. The next 13.5% to adopt are those who find it easy to imagine, understand, and appreciate the benefits of a new technology, and can relate these potential benefits to their other concerns. The highest number of "opinion leaders" is found among the early adopters, who themselves do not rely on well-established references in making their buying decisions, preferring instead to rely on their own intuition and vision (Moore, 12).
- *Early Majority.* The next 34% to adopt are deliberate and practical. They want to see well-established references – often from trusted Early Adopters – before buying. They want to know that the new technology is not just a fad, though they usually have the finances to absorb failures (Moore, 12).
- *Late Majority.* The next 34% to adopt are skeptical about innovations and often adopt because of the peer pressure from all those who have already adopted. They do not tolerate uncertainty well and often have fewer financial resources available than those in the Early Majority (Rogers, 265).
- *Laggards*. The final 16% to adopt are traditionalists as well as isolationists, are suspicious of new technologies, and are often least able to afford any technologies that are not certain to succeed (Rogers, 265).

HISTORY AND USES OF THE DIFFUSION MODEL

The Diffusion Model was developed in the 1940s as a result of a study of the rate at which Iowa corn farmers in the United States adopted a new kind of seed. But in the decades since, the model has spread to the fields of anthropology, sociology, education, public health, communication, marketing, marketing research, management, geography, and economics, to explain how many different kinds of new ideas and new products are adopted (Rogers, 42-43).

In marketing, the Diffusion Model has been used to investigate the rate of adoption for new products and to study how the perceived attributes of a new product affect its purchase (Rogers, 79). Diffusion research has also been a theory behind the development of marketing positioning strategies that use psychographic segmentation profiles to identify the most receptive target markets for a particular innovation or product, and to predict how consumers of the various attitudinal segments might react to the various degrees of change, from continuous to discontinuous to disruptive. Since the 1970s, diffusion research has also served as the basis for various statistical models for forecasting the diffusion of new consumer products.[4)]

Besides the adopter categories, the main elements of the Diffusion Model are:

- the innovation itself;
- the communication channels used to communicate the innovation;
- the social system within which the innovation is being adopted;
- time – both the time it takes for the individual's adoption decision process as well as the time involved for the innovation's rate of adoption within the system (Rogers, 10).

In real-world research, parts of the Diffusion Model appear to be particularly useful in understanding how new technologies are adopted. Two especially useful concepts are the S-shaped curve that depicts the rate of adoption, and the concept that the part of the diffusion process between 10% adoption to 20% adoption is at the heart of the new product success. Before this range, there is no guarantee that a "critical mass" of adoption will be reached; beyond this range, it is often impossible to stop the diffusion even if one wished to do so (Rogers, 259).

PREMISES AND ASSUMPTIONS ON WHICH THE DIFFUSION MODEL IS BASED

All models are based on a set of premises or assumptions. After an extensive review of the historical literature about the Diffusion Model, this model appears to be based on a number of premises and assumptions.[5)] The following premises were the starting point for our research into Early Adopter fatigue:

1. Innovators, Early Adopters, and the other categories are normally distributed, with fixed proportions of any population falling into these precise divisions.
2. Innovators and Early Adopters are the same groups of people, regardless of product or service category. In other words, the Diffusion Model appears to assert that Early Adopters of peanut butter are also Early Adopters of personal computers and new fashion trends, etc.
3. Members of each adoption category tend to exhibit unique and consistent personality and attitudinal profiles that distinguish them from all other adoption categories.
4. Adoption categories are determined by order or sequence of purchase. That is, the first 2.5% of purchasers are Innovators, and the next 13.5% are Early Adopters, and so on. There are no time limits or boundaries. It doesn't matter if the whole adoption cycle of a new product takes one day or one decade to occur.
5. Since there are no time boundaries within the Diffusion Model, it is only possible to determine who is in each adoption category (e.g., who the Innovators and Early Adopters are) "after the fact," when the adoption cycle is complete – and this process might take years.
6. The proportions of the adopter categories are fixed and independent of the new product or new technology itself. The Diffusion Model itself seems to assert that there is no interaction between new products and the distribution of Innovators and Early Adopters.
7. The proportions of Innovators and Early Adopters are independent of culture, language, education, economic level, etc.

STUDY DESIGN ISSUES

Who and Where are the Early Adopters?

In order to test our hypothesis, we knew we would need to address Early Adopters. So the first problem we encountered was definitional. How were we to identify "Early Adopters of new communication technologies" so that a

study was possible? We could not wait until 2010 to decide who was an Early Adopter. However, since our research was focused on the adoption of new communication technologies, and given the revolutionary effect the Internet has had on communications worldwide, we reasoned that Early Adopters of new communication technologies would most likely be found among the Internet community. This was our first key assumption.

As the degree of diffusion of the Internet varies by country (meaning that not everyone on the Internet would per se be an Early Adopter), we made a second key assumption: Early Adopters of new technology would, by definition, have purchased new technology products in the past. So we developed a list of 17 consumer technology products by which to screen respondents for past purchase. These products were:

- Wireless or mobile telephones
- PCs
- Laptop or notebook computers
- Internet accounts with dial-up connection at home
- Internet accounts with broadband connection (cable, DSL, ADSL, ISDN, etc.)
- DVD players
- MP3 players
- CD-ROM Writers (CD-RWs)
- Web-enabled wireless or mobile telephones
- Wireless keyboard/mouse/printer at home
- Digital cameras
- Camcorders
- Webcams
- Home networking equipment
- PDAs
- HDTVs (High Definition Televisions)
- Wireless modems

Then we conducted a screening survey among a sample of Internet users in 12 countries asking them which of these technology products they had purchased "within 12 months" from the time the products first became available in their geographic area. The list of products deliberately included products that are no longer considered new, as well as some quite new products, so as to adapt the study as much as possible, given our time frame, to different economic and societal conditions (and therefore countries at different stages in the diffusion

of new technology). We reviewed the results and decided upon "two purchases" as the definitional cutoff point. That is, this screening definition produced percentages of Early Adopters that we deemed reasonably consistent with the classical definition of Early Adopters, given that we were screening multiple product categories.

In the final analysis, however, this definition is quite arbitrary. Classical Diffusion Model theory gave us no clear-cut way to define an Early Adopter that could serve as the foundation of a survey of multiple new technologies, while the adoption of those technologies is still in progress. However, one cannot be totally sure that the Internet adequately represents these Early Adopters of new technology products, so we will limit the scope of our findings and conclusions to the universe of Internet users who are Early Adopters of the new technology products, as previously defined.

Convergence

Another important notion that affected the design of our research is "convergence." The interdependence among a number of different communication technology products suggested to us the importance of studying a cluster of related new products, rather than one or two new products.

STUDY DESIGN

Sample

Given that we wanted to reach the Internet user population in 12 countries, a stratified quota sample was prepared from Decision Analyst's global consumer panel online, which includes over four million members in 150 countries. Members of our online consumer panel are recruited through a variety of methods, both online and offline, though all must have access to the Internet (whether from home, work, school, or other location). Only one member per household is accepted. All members provide demographic information when joining the panel, which is then validated during each subsequent interview.

In consideration of this study's objectives, quotas were set to match the demographics of the Internet population in each of 12 countries: the United States, Canada, France, the United Kingdom, Germany, Italy, Spain, Russia, India, China, Japan, and Australia. The demographics of the Internet population were sourced from Nielsen NetRatings in all countries where available (i.e., the United States, Canada, France, the United Kingdom, Germany, Italy, Spain, Japan, and Australia). The source for Internet population demographics for Russia was the Computer Industry Almanac; the

source for Internet population demographics for India was the National Association of Software and Service Companies (NASSCOM); and the source for Internet population demographics for China was the China Internet Network Information Center (CNNIC).[6)]

Methodology

The questionnaire was designed to be no longer than ten minutes in length, with no open-ended questions, to ensure that fieldwork could be conducted within the timetable allowed by the ESOMAR Net Effects 5 conference organizers. The questionnaire was then translated into French, German, Italian, Spanish, Russian, Chinese, and Japanese, localized for each country surveyed, and programmed for online interviewing. Translations were carried out by translators resident in the countries surveyed and expert in the technological terminology, and were then reviewed and back-translated by a second mother-tongue translator residing in the United States.

Table 1
NUMBER OF PEOPLE INVITED AND NUMBER OF INTERVIEWS COMPLETED

Countries	*Number of people invited*	*Number of people interviewed*
United States	3,000	300
Canada	3,000	300
United Kingdom	3,000	300
Germany	3,000	300
France	3,000	300
Italy	3,000	300
Spain	3,000	300
Russia	3,000	300
India	3,000	200
China	3,000	300
Japan	3,000	200
Australia	3,000	300
Total	36,000	3,400

Members included in the sample were invited to participate in the survey on our secure server, and logged in using two passwords. All respondents were screened to identify Internet users aged 25 and older who had purchased two or more products (from the list of 17 products provided earlier) within 12

months from that product's introduction into the respondent's geographical area. The software randomized the order of products shown so as to minimize sequence bias. Respondents were screened for age for two reasons: to ensure that they would have some past experience of purchasing new technology products (a prerequisite necessary for "fatigue" to have emerged or be detected), and to ensure that they would have the potential for purchasing power, which is implied by Diffusion Model.

Table 1 shows the number of people that were contacted from our consumer panel and the number of interviews completed in each country. A total of 3,400 interviews were conducted from November 12 to November 27, 2001. (See table 1.)

FINDINGS

Given that the population of Internet users is skewed towards males aged 34 or younger in countries with lower rates of usage (e.g., France, Italy, and Spain, but also Russia, China, and India), we found that the Early Adopters we surveyed in the United States, Canada, United Kingdom, Germany, Japan, and Australia were on average older than those surveyed in France, Italy, Spain, Russia, India, and China.

As expected, the kinds of products that Early Adopters had purchased were related to the geographical areas surveyed: for instance, Early Adopters in Continental Europe purchased mobile telephones in larger proportions than Early Adopters in other countries, with the exception of China (where 68% of Early Adopters had purchased a mobile telephone within 12 months of introduction). Equally, PC purchase was much more important in countries such as Russia, India, and China than in North America, Europe, or Japan. (See appendix A for a list of products purchased within 12 months of introduction by country and region.)

Most Early Adopters of new technology on the Internet currently owned a PC and a mobile telephone (over 80% of Early Adopters in Germany, France, Italy, Spain, and China). CD-ROM Writers were owned by over 60% of Early Adopters in Germany, Spain, France, Italy, and the United Kingdom. Over half of Early Adopters in the United States, United Kingdom, and France owned a DVD player. Web-enabled mobile telephones were more popular among Early Adopters in continental Europe, Japan, and China, as were wireless keyboards, mouse devices, or printers (with the exception of Japan). In China, 64% of those surveyed had a regular dial-up Internet connection at home, compared to 60% of Early Adopters in Germany. On the other hand, Early Adopters in Germany and Japan appeared to have the highest rates of adoption of broadband Internet access: 84% in Germany and 91% in Japan

(with Germany having the highest rate of DSL adoption among Early Adopters: 36%). PDAs were also most popular among Early Adopters in Germany and Japan (23% and 20%, respectively). (See appendix B for products currently owned by country and region.)

The top three products that Early Adopters planned to purchase or upgrade (when available) were:

1. North America: DSL lines at home, Digital Video (DV) camcorders, CD-ROM Writers (CD-RWs), and HDTV
2. Western Europe: DSL/ADSL, DV camcorders, CD-RWs and MP3 players (particularly in Spain and Italy), HDTV in France, and wireless keyboards/mouse devices/printers using Bluetooth technology in Germany
3. Asia: DSL in Japan; DV camcorders in India, China, and Japan; CD-RWs, HDTV in Russia; MP3 players in India and China; and web-enabled mobile telephones in Russia
4. Australia: DV camcorders, CD-RWs, and HDTV

Interestingly, the highest degree of interest among Early Adopters for DSL/ADSL was shown in Germany (28%) and Japan (29%).

Despite the above findings, our survey also showed that between 42% and 49% of Early Adopters in the United States, Canada, the United Kingdom, and Australia, did not plan to purchase or upgrade to any of these products. As shown in appendix C, the proportions of those who did not plan to purchase were significantly higher in North America, the United Kingdom, and Australia than those found for Continental Europe or Asia. Notably, the highest degree of interest in purchasing these new technologies was shown in Russia, India, and China. (See appendix C for products planned to buy, as available.)

While a number of Early Adopters were interested in these new products, our survey also indicated that the gap between what Early Adopters are prepared to pay and the cost of these technologies may constitute one of the first barriers to widespread adoption among this key segment. Are Early Adopters being overly optimistic as to what technologies they will be buying in the future? These optimistic views of what they would be purchasing, coupled with the lack of interest in new communication technology products altogether in some countries (which we mentioned earlier), painted a worrying picture for "convergence." (See appendix D for how much Early Adopters are willing to pay for new technology.)

As shown in appendix E, the top reasons why Early Adopters did not want to buy any of these new technologies were that they considered them too expensive when they were first launched into the market, they liked using what

they currently had and did not want to change, they were waiting to see which technology would become most popular, and they were concerned about bugs in the systems the first year of introduction. Early Adopters in the United States and Canada indicated one additional reason: they did not want to be reachable 24 hours a day. (See appendix E for reasons why respondents would not purchase new products.)

These answers were somewhat alarming, considering that according to the Diffusion Model these Early Adopters should "find it easy to imagine, understand, and appreciate the benefits of a new technology, and can relate these potential benefits to their other concerns" and that, still according to the theory, "the highest number of opinion leaders is found among the Early Adopters". In particular, it was noticeable that the ranks of such "timid" Early Adopters, sitting at the edge of the field and waiting for things to happen, were largest in North America, the United Kingdom, and Australia. Since the first concerns about "Early Adopters fatigue" have also been voiced specifically in North America, should we consider this only a coincidence?

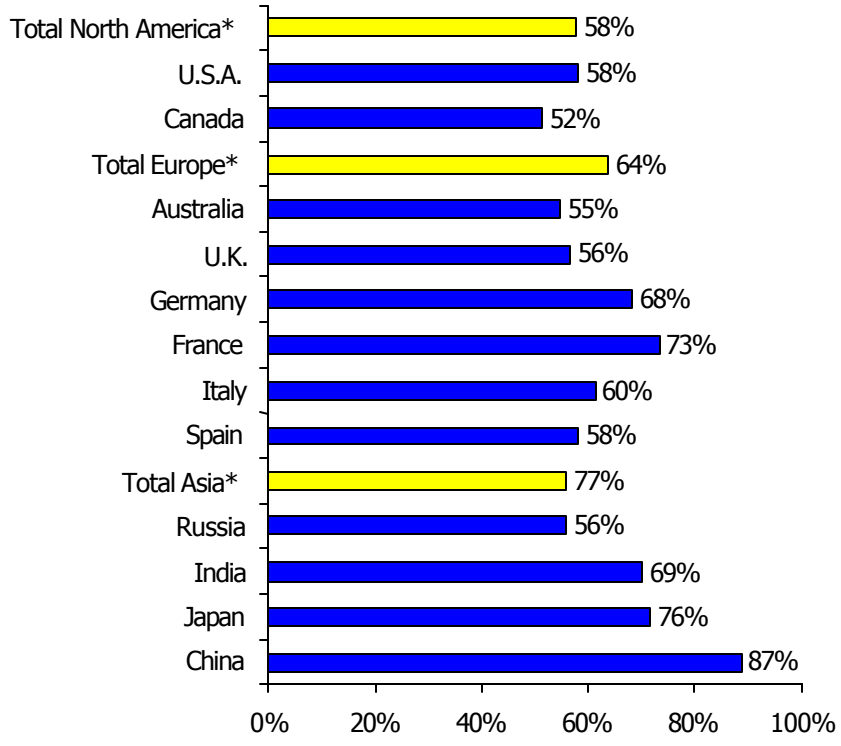
However, beyond the hypothesis of "fatigue" among certain Early Adopters, were there any reasons why certain new technologies would likely face a slower rate of adoption than could have been anticipated? We asked this question to Early Adopters who planned to purchase new communication technologies about those products they did not plan to purchase. For almost all technologies, the most frequent reasons given across all 12 countries for not planning to purchase a new technology were that the product was too expensive, they were happy with their current solution, and they were waiting to see which technology would become most popular. In the case of mobile or wireless telephones with PDA capabilities, 23% of Early Adopters in the United States, 24% in Canada, and 18% in Australia mentioned that they did not want to be reachable 24 hours a day as one of the reasons why they would not purchase this new technology. In other words, there was considerable consistency between the answers of those who did not plan to purchase any new technology in the near future and those who were planning to purchase some but not others.

Indeed, Early Adopters in the United States, Canada, and the United Kingdom seemed to be less optimistic about the introduction of new technologies in general. Only one in two thought these new communication technologies were the wave of the future, less than one in two thought that these technologies would increase the quality of their lives, and only one in four believed these technologies would make their lives less complicated. Early Adopters in Australia were slightly more positive about the new communication technologies.

Additionally, only one Early Adopter in five thought that these new technologies would adequately protect their privacy. Interestingly, respondents in the United States, Australia, Spain, India, and China were the most optimistic (or maybe the least concerned) about the level of privacy provided by these technologies. These findings may correlate with these countries' lesser legislative concern for privacy of the individual, and therefore a diminished awareness by the individual about how much privacy new technology will allow. (See appendix F for opinions about new communication technologies.)

In fact, if we had a thermometer to measure the degree of excitement displayed by Early Adopters in the 12 countries surveyed, China could be said to be "running a high fever for new technology," while Japan, France, India, and Germany would be "running a temperature," and Canada, Australia, Russia, the United Kingdom, Spain, the United States, and Italy would be the coolest on the scale.

Figure 2
EARLY ADOPTERS EXCITED ABOUT THE NEWEST HIGH TECHNOLOGY PRODUCTS - TOP BOX



** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

CONCLUSIONS

Could we conclude that Early Adopters around the world are "fatigued" and do not want to invest their money, time, and energy on new communication technologies? No. The Early Adopters surveyed did not have any very evident symptoms of "fatigue." However, Early Adopters in North America, the United Kingdom, and Australia did show symptoms of a "cooling interest" towards new communication technologies, and an increased price sensitivity (which in the United States was probably related to the general economic downturn), which falls under our working definition of "fatigue." In fact, fewer Early Adopters in North America, the United Kingdom, and Australia were convinced that these new technologies were the wave of the future, would increase their productivity, would increase their quality of life, and would make their life less complicated, than were any Early Adopters in Continental Europe or Asia. These findings were in contrast with the Diffusion Model's postulate that Early Adopters "find it easy to imagine, understand, and appreciate the benefits of a new technology, and can relate these potential benefits to their other concerns."

While the interest of Early Adopters is faltering in North America, Australia, and the United Kingdom, it can be argued that much of Europe and Asia (and particularly China) are still enthusiastic about the idea of new communication technologies and, to the extent that these new technologies can be afforded by these Early Adopters, these countries may be the ones to carry on their shoulders the hopes of a new century of "convergence."

LIMITATIONS

This study's key limitation was the compressed time frame allowed for data collection, which meant that sacrifices had to be made in terms of interview length, customization of the questionnaire to the countries surveyed, and collection of open-ended replies.

Additionally, this study is limited to the extent that the definition used to qualify Early Adopters on the Internet differs from the definition provided by the Diffusion Model, and to the extent to which Early Adopters who are Internet users differ in their views about new communication technology from the universe of Early Adopters in each country.

FOOTNOTES

1. Several studies are cited in Michael Pastore's "Spending Carefully or All Teched Out?" Oct. 31, 2001 (http://www.cyberatlas.internet.com/big_picture/hardware/article/0,,5921_914411,00.html)

2. See Andreas Pfeiffer, "Is the Consumer Market Disillusioned with Technology?" Jan. 16, 2000. *The Pfeiffer Report: Emerging Trends and Technologies.* (http://www.pfeifferreport.com/trends/ett_dis.html); Euro RSCG Worldwide, "Global Consumer Attitudes Toward Technology," June 25, 2001 (http://www.eurorscg.com/press/index.asp?year=&headline=&place=24); Philip Say, "Overcoming Tech Fatigue Syndrome," Oct. 22, 2001, Click.com (http://www.clickz.com/b2b_mkt/b2b_mkt/article.php/907291); Steve Lohr, "A Time Out for Technophilia," Nov. 18, 2001, New York Times (www.nytimes.com)

3. The most well-known study of the Diffusion Model is found in Everett M. Rogers' *Diffusion of Innovations*, Fourth Edition (New York: Free Press, 1995), which includes not only a detailed description of the model, but also includes reviews and critiques of decades of research that applies the Diffusion Model. The Diffusion Model was also most famously applied to new technology products in Geoffrey A. Moore's *Crossing The Chasm* (revised edition, New York: HarperBusiness, 1999), in Donald A. Norman's *The Invisible Computer* (revised edition, Cambridge, MA: MIT Press, 1999), Clayton M. Christensen's *The Innovator's Dilemma* (Cambridge, MA: Harvard Business School Press, 1997), and most recently served as one of the bases for Malcolm Gladwell's *The Tipping Point* (New York: Little, Brown, 2000).

4. The most famous forecasting model based on diffusion research is the Bass model, developed in 1969 by Frank M. Bass, now at the University of Texas-Dallas. For more information, see white papers at Dr. Bass' Web site, http://www.basseconomics.com/

5. Rogers' *Diffusion of Innovations* devotes most of Chapter 3 (starting on p. 96) to a discussion of the major criticisms of the Diffusion Model, including some criticisms that we have listed also.

6. "The World's Online Populations," CyberAtlas staff, Nov. 19, 2001; this roundup is updated regularly, and the Nov. 19th update was the most current at the time we did our study. (http://cyberatlas.internet.com/big_picture/geographics/article/0,,5911_151151,00.html)

REFERENCES

Bass, Frank M. (http://www.basseconomics.com/)

Christensen, Clayton M. (1997). *The Innovator's Dilemma*. Cambridge, MA: Harvard Business School Press.

CyberAtlas.com (http://www.cyberatlas.com)

EMarketer.com (http://www.emarketer.com)

Euro RSCG Worldwide (2001), "Global Consumer Attitudes Toward Technology," June 25, 2001 (http://www.eurorscg.com/press/index.asp?year=&headline=&place=24)

Gladwell, Malcolm. (2000). *The Tipping Point*. (New York: Little, Brown)

Lohr, Steve. (2001). A Time Out for Technophilia. *New York Times* (www.nytimes.com)

Moore, Geoffrey A. (1999). *Crossing The Chasm*. Revised edition. New York: HarperBusiness

Norman, Donald A. (1999). *The Invisible Computer.* Revised edition. Cambridge, MA: MIT Press

Norman, Donald A. (1998). The Life Cycle of a Technology: Why It Is So Difficult for Large Companies to Innovate. (http://www.jnd.org/dn.mss/life_cycle_of_techno.html)

Pastore, Michael. (2001). Spending Carefully or All Teched Out? (http://www.cyberatlas.internet.com/big_picture/hardware/article/0,,5921_914411,00.html)

Pfeiffer, Andreas. (2000). Is The Consumer Market Disillusioned With Technology? *The Pfeiffer Report: Emerging Trends and Technologies* (http://www.pfeifferreport.com/trends/ett_dis.html)

Rogers, Everett M. (1995). *Diffusion of Innovations*. Fourth Edition. New York: Free Press

Say, Philip. (2001). Overcoming Tech Fatigue Syndrome. Click.com (http://www.clickz.com/b2b_mkt/b2b_mkt/article.php/907291)

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APPENDIX A
PRODUCTS PURCHASED WITHIN 12 MONTHS OF INTRODUCTION: NORTH AMERICA AND AUSTRALIA

	North America			*Australia*
	Total* North America	***United States***	***Canada***	***Australia***
Base: Total respondents	(600)	(300)	(300)	(300)
	%	%	%	%
Wireless/mobile phone	48.8	49.6	40.8	52.5
PC (Personal Computer)	53.7	53.7	53.3	59.1
Internet account with dial-up connection at home	45.8	46.1	43.7	67.9
CD-ROM Writer	33.2	33.4	31.4	40.7
DVD player	38.8	40.3	24.2	34.1
Other broadband Internet connection (e.g. cable, ISDN line, satellite dish)	34.1	32.9	45.4	18.6
Web-enabled wireless telephone or mobile phone	9.6	9.5	9.6	8.1
Digital camera	30.7	32.2	16.2	27.5
Wireless or cable-less keyboard/mouse/printer for a computer	8.7	8.6	9.8	8.4
Installed DSL line at home	14.9	14.8	16.4	4.7
Webcam	14.8	14.8	14.6	13.0
Camcorder	23.4	24.3	14.4	14.0
Home networking equip (hardware/software to link more than one computer)	14.4	14.3	15.1	17.2
Laptop/notebook computer	14.4	14.8	10.5	13.5
PDA (Personal Digital Assistant)	9.8	10.3	5.7	6.1
MP3 player	8.3	8.6	5.9	6.9
HDTV (High Definition Television)	5.1	5.3	4.1	2.7
Wireless modem	3.6	3.8	1.5	4.7

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX A
PRODUCTS PURCHASED WITHIN 12 MONTHS OF INTRODUCTION: EUROPE

	Europe					
	Total* Europe	***United Kingdom***	***Germany***	***France***	***Italy***	***Spain***
Base: Total respondents	(1500)	(300)	(300)	(300)	(300)	(300)
	%	%	%	%	%	%
Wireless/mobile phone	55.4	48.0	55.2	58.0	59.9	60.0
PC (Personal Computer)	49.4	57.3	45.1	44.9	49.8	50.0
Internet account with dial-up connection at home	38.3	59.5	29.6	25.6	32.6	46.7
CD-ROM Writer	42.8	41.9	45.1	39.0	40.5	48.1
DVD player	31.9	38.1	30.3	36.4	24.2	30.2
Other broadband Internet connection (e.g. cable, ISDN line, satellite dish)	23.8	25.3	28.6	16.0	23.6	18.6
Web-enabled wireless telephone or mobile phone	22.8	16.4	18.2	28.1	31.7	24.5
Digital camera	23.0	32.5	25.9	17.7	16.4	13.6
Wireless or cable-less keyboard/mouse/printer for a computer	23.0	8.2	30.0	24.2	27.7	26.2
Installed DSL line at home	19.7	5.5	36.0	19.1	11.7	22.9
Webcam	17.3	15.7	15.5	19.9	20.6	15.9
Camcorder	12.0	19.3	8.8	16.1	4.4	12.6
Home networking equip (hardware/software to link more than one computer)	11.9	11.3	16.2	5.7	10.5	13.4
Laptop/notebook computer	12.8	11.8	16.5	7.8	14.1	9.5
PDA (Personal Digital Assistant)	9.9	11.1	12.1	10.6	5.9	7.6
MP3 player	8.5	11.6	9.1	5.8	6.4	8.3
HDTV (High Definition Television)	4.9	4.3	2.4	11.6	2.7	7.6
Wireless modem	3.5	1.9	2.0	3.2	7.8	3.9

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX A
PRODUCTS PURCHASED WITHIN 12 MONTHS OF INTRODUCTION: ASIA

	Asia				
	Total* Asia	***Russia***	***India***	***Japan***	***China***
Base: Total respondents	(1000)	(300)	(200)	(200)	(200)
	%	%	%	%	%
Wireless/mobile phone	44.1	45.1	45.7	32.1	67.9
PC (Personal Computer)	54.9	61.2	67.6	46.2	69.3
Internet account with dial-up connection at home	32.9	50.3	59.0	17.9	53.7
CD-ROM Writer	31.9	47.0	25.4	34.0	25.0
DVD player	26.1	11.2	22.0	25.5	31.4
Other broadband Internet connection (e.g. cable, ISDN line, satellite dish)	31.5	10.9	31.2	35.8	27.7
Web-enabled wireless telephone or mobile phone	21.6	18.8	16.2	17.0	32.4
Digital camera	29.7	16.1	22.5	37.7	17.6
Wireless or cable-less keyboard/mouse/printer for a computer	12.9	13.8	7.5	8.5	22.3
Installed DSL line at home	22.5	2.3	8.1	29.2	15.5
Webcam	3.8	6.3	22.0	1.9	4.4
Camcorder	8.6	7.9	7.5	6.6	12.8
Home networking equip (hardware/software to link more than one computer)	21.2	21.4	8.7	24.5	16.2
Laptop/notebook computer	23.6	8.9	10.4	30.2	13.5
PDA (Personal Digital Assistant)	13.2	11.8	12.1	14.2	11.8
MP3 player	10.9	12.5	23.1	8.5	13.5
HDTV (High Definition Television)	4.1	1.6	5.2	3.8	5.1
Wireless modem	8.0	2.3	10.4	8.5	8.1

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX B
PRODUCTS CURRENTLY OWNED: NORTH AMERICA AND AUSTRALIA

	North America			*Australia*
	Total* North America	***United States***	***Canada***	***Australia***
Base: Total respondents	(600)	(300)	(300)	(300)
	%	%	%	%
PC	89.8	90.0	88.0	94.1
Wireless telephone or mobile phone	68.8	69.2	65.1	72.8
CD-ROM Writer	51.9	52.3	47.8	54.9
Internet account with dial-up connection at home	53.3	54.7	40.2	78.7
DVD player	53.3	55.1	34.9	41.2
Camcorder	47.6	49.2	32.5	26.7
Web-enabled wireless telephone or mobile phone	13.9	13.8	14.6	15.9
Digital camera	46.5	48.4	27.1	36.5
Other broadband Internet connection (e.g. cable, ISDN line, satellite dish)	37.9	37.0	45.9	21.3
Laptop or notebook computer	29.0	29.6	23.4	27.2
Webcam	22.7	22.9	21.0	23.5
Wireless or cable-less keyboard/mouse/printer for a computer	10.4	10.3	12.2	9.3
Home networking equipment	21.9	21.7	23.8	27.0
Installed DSL line at home	13.5	13.1	17.7	5.1
MP3 player	12.2	12.4	10.5	13.5
PDA	14.4	15.0	7.6	6.4
HDTV (High Definition Television)	8.4	8.4	9.4	4.2
Wireless modem	5.3	5.5	3.5	7.8
None of these	0.2	0.2	0.2	--

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX B
PRODUCTS CURRENTLY OWNED: EUROPE

	Europe					
	Total* Europe	***United Kingdom***	***Germany***	***France***	***Italy***	***Spain***
Base: Total respondents	(1500)	(300)	(300)	(300)	(300)	(300)
	%	%	%	%	%	%
PC	93.6	95.7	93.6	91.8	92.5	94.1
Wireless telephone or mobile phone	84.1	75.2	84.5	85.4	91.6	87.1
CD-ROM Writer	65.7	60.2	75.4	63.8	59.6	65.7
Internet account with dial-up connection at home	59.8	75.9	59.6	38.4	56.7	65.1
DVD player	47.9	54.7	49.5	53.9	35.8	41.6
Camcorder	31.4	40.5	29.0	41.1	11.6	42.2
Web-enabled wireless telephone or mobile phone	36.7	24.8	36.7	42.5	46.5	34.9
Digital camera	33.4	47.7	36.0	25.9	24.4	21.8
Other broadband Internet connection (e.g. cable, ISDN line, satellite dish)	34.1	34.9	48.5	17.2	30.4	24.6
Laptop or notebook computer	31.8	33.0	39.4	21.3	32.3	22.0
Webcam	30.2	29.6	29.6	32.0	33.0	24.3
Wireless or cable-less keyboard/mouse/printer for a computer	33.0	12.8	40.7	32.5	46.5	31.2
Home networking equipment	25.1	22.2	38.7	13.6	20.3	20.7
Installed DSL line at home	20.3	6.7	35.7	20.9	12.2	22.7
MP3 player	14.0	17.3	16.8	7.5	11.2	14.0
PDA	15.1	13.7	22.6	14.7	8.1	10.9
HDTV (High Definition Television)	10.3	10.8	3.4	23.6	5.3	18.7
Wireless modem	6.2	5.8	4.7	4.8	10.0	5.6
None of these	--	--	--	--	--	--

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX B
PRODUCTS CURRENTLY OWNED: ASIA

	Asia				
	Total* Asia	***Russia***	***India***	***Japan***	***China***
Base: Total respondents	(1000)	(300)	(200)	(200)	(200)
	%	%	%	%	%
PC	84.3	94.4	82.7	84.0	82.8
Wireless telephone or mobile phone	63.6	60.5	41.0	57.5	79.7
CD-ROM Writer	46.8	51.3	21.4	56.6	29.4
Internet account with dial-up connection at home	55.9	65.5	64.7	50.0	64.2
DVD player	34.9	18.8	22.0	37.7	34.8
Camcorder	19.5	11.8	8.7	17.9	19.3
Web-enabled wireless telephone or mobile phone	28.2	21.1	12.7	28.3	31.8
Digital camera	46.5	17.1	14.5	64.2	22.3
Other broadband Internet connection (e.g. cable, ISDN line, satellite dish)	49.3	11.2	22.5	65.1	30.1
Laptop or notebook computer	46.3	15.5	7.5	66.0	19.3
Webcam	6.7	8.9	17.3	6.6	4.7
Wireless or cable-less keyboard/mouse/printer for a computer	21.0	13.8	4.0	20.8	25.7
Home networking equipment	23.8	28.9	5.8	27.4	17.9
Installed DSL line at home	20.2	1.3	3.5	25.5	16.2
MP3 player	16.7	18.8	26.0	16.0	16.2
PDA	17.0	14.5	9.8	19.8	12.8
HDTV (High Definition Television)	6.4	2.3	4.6	6.6	7.1
Wireless modem	8.3	1.0	2.9	9.4	8.4
None of these	0.2	--	5.8	--	--

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX C
PRODUCTS PLANNED TO BUY, AS AVAILABLE: NORTH AMERICA AND AUSTRALIA

	North America			*Australia*
	Total* North America	***United States***	***Canada***	***Australia***
Base: Total respondents	(600)	(300)	(300)	(300)
	%	%	%	%
DSL Line	17.0	17.9	7.9	14.2
Digital Video (DV) camcorder	18.0	18.6	12.4	17.4
CD- ROM Writer (CD-RW)	14.2	14.1	14.8	17.9
HDTV (High Definition Television)	11.5	11.5	12.4	15.0
MP3 Player	8.5	8.4	10.0	8.1
Wireless/cable-less keyboard/mouse/printer for a computer	6.3	6.2	7.6	10.5
Web-enabled wireless telephone/mobile phone	4.3	4.5	2.0	3.4
PDA with wireless access/Web-enabled PDA	3.9	4.1	2.2	3.7
Wireless phone with PDA capabilities	6.3	6.7	2.2	3.4
Wireless home networking equipment (using Bluetooth technology)	4.1	4.3	2.4	3.4
Wireless modem	5.5	5.7	3.7	4.4
Web-enabled pager	2.1	2.1	1.7	0.2
None of these	48.7	48.7	49.3	42.4

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX C
PRODUCTS PLANNED TO BUY, AS AVAILABLE: EUROPE

	Europe					
	Total* Europe	***United Kingdom***	***Germany***	***France***	***Italy***	***Spain***
Base: Total respondents	(1500)	(300)	(300)	(300)	(300)	(300)
	%	%	%	%	%	%
DSL Line	22.0	13.7	27.6	23.3	22.4	22.0
Digital Video (DV) camcorder	15.1	16.1	13.1	21.2	9.8	18.8
CD- ROM Writer (CD-RW)	14.2	12.5	12.1	14.0	17.9	17.8
HDTV (High Definition Television)	10.8	10.1	5.7	17.4	11.7	15.4
MP3 Player	12.4	8.2	10.4	12.8	16.5	19.3
Wireless/cable-less keyboard/mouse/printer for a computer	12.1	8.0	15.8	13.1	8.9	16.0
Web-enabled wireless telephone/mobile phone	7.2	5.1	7.1	6.8	9.8	7.9
PDA with wireless access/Web-enabled PDA	6.3	3.6	6.1	6.4	8.9	8.3
Wireless phone with PDA capabilities	6.0	3.6	4.7	3.3	13.7	4.5
Wireless home networking equipment (using Bluetooth technology)	4.9	3.1	6.4	4.1	5.4	5.0
Wireless modem	2.8	2.7	2.7	2.9	2.6	4.0
Web-enabled pager	1.2	0.2	1.0	2.0	2.1	1.4
None of these	36.7	48.4	38.0	32.0	29.0	28.2

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX C
PRODUCTS PLANNED TO BUY, AS AVAILABLE: ASIA

	Asia				
	Total* Asia	***Russia***	***India***	***Japan***	***China***
Base: Total respondents	(1000)	(300)	(200)	(200)	(200)
	%	%	%	%	%
DSL Line	21.1	8.9	20.2	23.6	18.9
Digital Video (DV) camcorder	24.4	5.6	25.4	18.9	39.9
CD- ROM Writer (CD-RW)	22.3	21.7	30.1	18.9	28.4
HDTV (High Definition Television)	19.2	26.3	17.3	14.2	28.0
MP3 Player	15.8	19.4	26.6	7.5	30.1
Wireless/cable-less keyboard/mouse/printer for a computer	14.3	18.4	14.5	11.3	19.3
Web-enabled wireless telephone/mobile phone	13.3	24.3	15.6	8.5	19.9
PDA with wireless access/Web-enabled PDA	9.7	12.8	9.8	7.5	13.2
Wireless phone with PDA capabilities	7.9	5.9	8.1	5.7	12.8
Wireless home networking equipment (using Bluetooth technology)	12.1	6.6	6.4	11.3	15.9
Wireless modem	8.6	6.6	15.0	5.7	14.2
Web-enabled pager	3.0	3.3	4.0	1.9	5.1
None of these	22.8	14.8	16.2	32.1	6.8

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX D
HOW MUCH EARLY ADOPTERS ARE WILLING TO PAY FOR NEW TECHNOLOGY (EXPRESSED AS A PERCENTAGE ABOVE THE COST OF PREVALENT TECHNOLOGY)** - NORTH AMERICA

	North America			*Australia*
	Total* North America	***United States***	***Canada***	***Australia***
Base: Plan to purchase the new technology listed (Base varies)				
Extra amount willing to pay to have…	%	%	%	%
DSL	28.15	28.28	25.28	30.38
Web-enabled wireless telephone or mobile phone	14.87	14.74	17.78	22.14
MP3 player	21.02	21.14	20.00	21.82
CD-ROM Writer	22.88	22.73	24.26	29.46
Wireless or cable-less keyboard/mouse/printer	25.87	26.54	20.57	19.30
PDA with wireless access or web-enabled PDA	23.66	23.53	26.00	30.07
Wireless modem	21.75	21.67	22.94	15.56
Web-enabled pager	17.95	17.78	20.00	30.00
Wireless phone with PDA capabilities	22.84	22.50	33.00	32.93
Digital Video (DV) camcorder	24.40	24.23	26.84	25.35
HDTV	27.57	27.10	31.77	33.30
Wireless home network	29.24	28.89	35.45	32.93

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*
*** Average Score*

APPENDIX D
HOW MUCH EARLY ADOPTERS ARE WILLING TO PAY FOR NEW TECHNOLOGY (EXPRESSED AS A PERCENTAGE ABOVE THE COST OF PREVALENT TECHNOLOGY)** - EUROPE

	Europe					
	Total* Europe	***United Kingdom***	***Germany***	***France***	***Italy***	***Spain***
Base: Plan to purchase the new technology listed (Base varies)						
Extra amount willing to pay to have…	%	%	%	%	%	%
DSL	26.44	29.47	25.38	33.34	22.59	21.49
Web-enabled wireless telephone or mobile phone	19.64	22.86	17.62	17.58	20.53	20.78
MP3 player	23.68	20.59	24.19	27.02	22.76	23.96
CD-ROM Writer	30.42	30.72	26.92	28.13	28.33	27.56
Wireless or cable-less keyboard/mouse/printer	24.73	25.79	26.62	21.58	23.57	23.70
PDA with wireless access or web-enabled PDA	24.18	26.00	28.39	20.81	22.67	20.57
Wireless modem	24.09	20.91	25.00	26.79	24.80	23.08
Web-enabled pager	23.89	10.00	23.33	20.00	31.05	17.78
Wireless phone with PDA capabilities	27.08	34.00	22.14	28.44	26.59	30.69
Digital Video (DV) camcorder	29.36	30.16	30.03	27.75	29.17	29.53
HDTV	32.34	30.48	35.29	33.46	31.61	30.93
Wireless home network	28.11	34.62	25.32	32.05	24.42	31.91

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*
*** Average Score*

APPENDIX D
HOW MUCH EARLY ADOPTERS ARE WILLING TO PAY FOR NEW TECHNOLOGY (EXPRESSED AS A PERCENTAGE ABOVE THE COST OF PREVALENT TECHNOLOGY)** - ASIA

	Asia				
	Total* Asia	***Russia***	***India***	***Japan***	***China***
Base: Plan to purchase the new technology listed (Base varies)					
Extra amount willing to pay to have…	%	%	%	%	%
DSL	34.42	52.30	18.57	29.60	47.04
Web-enabled wireless telephone or mobile phone	25.71	18.51	18.89	22.22	31.56
MP3 player	32.87	29.83	20.87	23.75	39.48
CD-ROM Writer	41.14	40.92	26.04	43.10	40.81
Wireless or cable-less keyboard/mouse/printer	30.94	39.16	20.00	28.33	33.35
PDA with wireless access or web-enabled PDA	31.71	23.33	21.18	28.75	38.21
Wireless modem	33.82	34.55	21.92	41.83	29.05
Web-enabled pager	35.47	27.00	21.43	50.00	27.40
Wireless phone with PDA capabilities	29.15	31.67	21.86	25.00	33.16
Digital Video (DV) camcorder	40.80	43.65	26.36	37.50	45.19
HDTV	44.27	44.33	34.00	42.07	47.41
Wireless home network	37.64	42.00	32.82	37.50	37.68

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*
*** Average Score*

APPENDIX E
REASONS WHY WOULD NOT PURCHASE NEW PRODUCTS - NORTH AMERICA

	North America			
	Total* North America	***United States***	***Canada***	***Australia***
Base: do not plan to purchase any products	(294)	(146)	(148)	(127)
	%	%	%	%
These products are too expensive when first introduced in the market	55.5	55.4	56.2	56.6
I like what I am using and do not want to change (or change again)	25.6	25.0	31.9	29.5
Waiting to see which tech. becomes most popular	28.4	27.9	33.2	31.8
I am concerned about "bugs" in the system the first year of introduction	20.9	21.1	19.5	19.1
I do not want to be reachable 24 hours a day	19.2	19.1	19.5	9.8
Concerned about the lack of customer service for new technology products	7.6	7.8	5.8	9.2
Do not want to go through complicated installation process	4.8	4.9	3.5	2.9
Not enough software applications available for the new product(s)	3.9	3.9	3.5	1.2
These products would just make life more complicated	7.5	7.8	4.0	3.5
It is frustrating to learn to use the features of these new products	6.7	6.9	4.9	5.2
Had bad experience with a similar new technology	3.4	3.4	2.7	1.2
Heard too many negative comments	1.4	1.5	0.4	--
Other reason	25.6	26.0	22.1	17.9

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX E
REASONS WHY WOULD NOT PURCHASE NEW PRODUCTS - EUROPE

	Europe					
	Total* Europe	***United Kingdom***	***Germany***	***France***	***Italy***	***Spain***
Base: do not plan to purchase any products	(527)	(145)	(114)	(96)	(87)	(85)
	%	%	%	%	%	%
These products are too expensive when first introduced in the market	56.4	61.2	51.3	68.7	44.6	58.6
I like what I am using and do not want to change (or change again)	37.1	24.4	38.1	54.2	50.0	26.0
Waiting to see which tech. becomes most popular	33.0	35.8	29.2	36.5	26.4	44.2
I am concerned about "bugs" in the system the first year of introduction	16.9	22.9	15.0	12.9	13.9	6.1
I do not want to be reachable 24 hours a day	11.3	14.9	12.4	9.0	4.3	11.0
Concerned about the lack of customer service for new technology products	4.7	7.5	1.8	4.8	3.6	7.7
Do not want to go through complicated installation process	5.1	4.5	8.0	1.6	4.6	3.3
Not enough software applications available for the new product(s)	4.6	1.5	8.8	5.2	3.2	1.7
These products would just make life more complicated	2.5	4.0	0.9	1.6	3.9	1.7
It is frustrating to learn to use the features of these new products	2.4	5.0	0.9	1.9	1.1	1.1
Had bad experience with a similar new technology	1.5	3.0	--	1.9	1.1	1.7
Heard too many negative comments	1.3	2.5	--	2.3	0.4	2.2
Other reason	23.2	25.4	28.3	11.9	20.0	21.5

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX E
REASONS WHY WOULD NOT PURCHASE NEW PRODUCTS - ASIA

	Asia				
	Total* Asia	***Russia***	***India***	***Japan***	***China***
Base: do not plan to purchase any products	(160)	(44)**	(32)**	(64)**	(20)**
	%	%	%	%	%
These products are too expensive when first introduced in the market	62.5	73.3	60.7	61.8	65.0
I like what I am using and do not want to change (or change again)	40.5	15.6	7.1	44.1	30.0
Waiting to see which tech. becomes most popular	31.9	35.6	57.1	29.4	45.0
I am concerned about "bugs" in the system the first year of introduction	17.6	33.3	10.7	14.7	40.0
I do not want to be reachable 24 hours a day	3.9	8.9	7.1	2.9	10.0
Concerned about the lack of customer service for new technology products	2.0	8.9	10.7	--	15.0
Do not want to go through complicated installation process	2.6	--	3.6	2.9	--
Not enough software applications available for the new product(s)	10.4	11.1	--	11.8	--
These products would just make life more complicated	5.6	2.2	3.6	5.9	5.0
It is frustrating to learn to use the features of these new products	2.6	2.2	--	2.9	--
Had bad experience with a similar new technology	0.6	2.2	3.6	--	5.0
Heard too many negative comments	0.1	2.2	--	--	--
Other reason	9.7	11.1	17.9	8.8	15.0

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed. **Caution: very small base.*

APPENDIX F
OPINIONS ABOUT NEW COMMUNICATION TECHNOLOGIES – NORTH AMERICA

	North America			
	Total* North America	***United States***	***Canada***	***Australia***
Base: Total respondents	(600)	(300)	(300)	(300)
	%	%	%	%
They are the wave of the future	55.5	55.6	54.1	58.3
They will increase my productivity	39.0	39.1	37.3	38.5
They will increase the quality of my life	35.9	36.3	32.3	34.3
They will make my life less complicated	25.4	25.1	29.3	31.4
They will allow me to have closer ties with my friends and family	41.3	41.3	41.5	40.9
They will provide adequate protection and privacy	19.7	20.0	16.8	17.9

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX F
OPINIONS ABOUT NEW COMMUNICATION TECHNOLOGIES – EUROPE

	Europe					
	Total* Europe	***United Kingdom***	***Germany***	***France***	***Italy***	***Spain***
Base: Total respondents	(1500)	(300)	(300)	(300)	(300)	(300)
	%	%	%	%	%	%
They are the wave of the future	60.9	48.7	65.0	69.9	57.8	69.5
They will increase my productivity	44.8	34.2	48.5	44.6	48.0	53.6
They will increase the quality of my life	44.6	33.7	49.5	39.2	49.7	54.7
They will make my life less complicated	33.7	26.0	34.7	51.5	44.6	46.9
They will allow me to have closer ties with my friends and family	34.4	41.4	24.2	33.6	35.1	40.8
They will provide adequate protection and privacy	15.5	17.6	13.8	14.3	14.7	19.2

** The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*

APPENDIX F
OPINIONS ABOUT NEW COMMUNICATION TECHNOLOGIES – ASIA

	Asia				
	Total* Asia	***Russia***	***India***	***Japan***	***China***
Base: Total respondents	(1000)	(300)	(200)	(200)	(200)
	%	%	%	%	%
They are the wave of the future	61.7	83.9	56.6	54.7	71.3
They will increase my productivity	55.6	77.6	57.2	44.3	73.0
They will increase the quality of my life	56.8	59.9	55.5	48.1	74.0
They will make my life less complicated	33.7	64.1	38.2	27.4	38.9
They will allow me to have closer ties with my friends and family	40.6	39.8	49.1	28.3	64.5
They will provide adequate protection and privacy	14.4	15.1	20.2	11.3	19.6

***** *The numbers reported for continents were weighted to be representative of the number of Early Adopters on the Internet in the countries surveyed.*