Interactive Television as a Database Marketing Medium

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I. Introduction

In 1992, North American consumers spent about $70 billion shopping from their homes.[1] Since the mid-1970's, the home shopping market has increased without pause. Driven by companies eager to measure and increase the efficiency of their marketing and distribution operations, the direct response marketing movement has spawned agencies large and small, from Madison Avenue to Malibu Beach. This paper suggests that Interactive Television has an important role to play in the movement towards more information-intensive direct response marketing.

Direct marketers use communications media both to contact and to stimulate direct response from consumers. Their great advantage over general advertisers is their ability to measure results. "Most advertisers never know for sure whether their advertisements ever sell. ... Direct response advertisers ... know to a dollar how much each advertisement sells."[2] Direct marketers use their knowledge to fine-tune their contact strategies.

The engines that transform raw response data into actionable knowledge are statistical models, built on a foundation of historical and externally-sourced information, housed in custom-designed marketing databases. A select group of direct marketers takes advantage of recent improvements in computer processing price/performance ratios and relational database management tools to gather and use customer information on an individual-by-individual basis. They are known as "database marketers," and are the focus of this paper.

"Database marketing" is an evolutionary step up from direct marketing, in that its practitioners use information analysis to customize marketing messages for target audiences of one. Its success depends on a steady supply of accurate and updated consumer data, from sources both internal (e.g., purchase history, product registration) and external (e.g., Census information), and on access to outbound media channels that allow mass personalization of marketing messages (*see* Exhibit 1 : A Simple Database Marketing Program).

To date, the best channels for both the collection and distribution of database marketing information have been the postal service (direct mail and Business Reply Mail) and the telephone network (inbound and outbound telemarketing). Television and radio advertising can generate response, but neither medium can transmit individually addressed outbound messages. The

[1] "Multimedia: The Tangled Webs They Weave," *The Economist*, October 16, 1993, p. 24.
[2] David Ogilvy, *Ogilvy on Advertising* (New York: Vintage, 1985), p. 23.

coming of Interactive Television may change that, providing database marketers with both a new source of consumer data and a channel for personalized, individually addressable multimedia advertising.

Most of the press discussion of advertising's role in Interactive Television has focused on the idea that consumers will be granted near-infinite choice. The implicit understanding is that consumers, shopping at their leisure in a virtual mall, will be freed from the manipulative daily barrage of advertising.

Here, for example, is the vision of a Time Warner executive, as reported in *The New York Times*: "We're talking about a fundamental shift in advertising. ... Think about buying a car. You can bring the showroom to your house and take a 15-minute walk through it."[3] There is little place here for the advertiser who tells "you" about the new cars on offer.

This idea that the power of interactive media somehow leaves advertisers out in the cold has taken root within the advertising industry itself. Here is the comment of a leading international advertising agency's U.S. Media Director: "There is a real risk that this boon for viewers could be very bad news for the advertising industry." His solution to this potential dilemma? Among other things, to "support efforts to make the three major television networks financially secure."[4]

This paper will argue that, far from making advertising a less important part of the consumer goods marketplace, Interactive Television will open up vast new opportunities for those marketers with the capacity and will to embrace database marketing, and to see the potential for personalization in the convergence of telephone, television, and computer technologies. Consumers weaned on toll-free 1-800 telephone numbers and credit card ordering may well be increasingly less receptive to untargeted, brand-building advertising in traditional media, but they may be ever more receptive to targeted, multimedia advertising in Interactive Television.

The notion that consumers will search out the items they want from the global "information supermarket" has more in common with "shopping" than with direct marketing, which plays to consumers' need for time savings and convenience. But even the local drugstore sends around circulars to tell the neighborhood about its special on Vitamin C or Advil. When every niche

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[3] Geoffrey Holmes, Time Warner's senior vice president for technology, in John Tierney, "Will They Sit by the Set or Ride the Data Highway?" *The New York Times* (June 20, 1993) , p. 24.
[4] Larry Cole, "The 500-Channel Headache," *Viewpoint* (June, 1993), p. 29. Mr. Cole works at Ogilvy & Mather International.

marketer in America has staked out a place in commercial cyberspace, are we seriously to believe that they will wait patiently for consumers to come to them, via the electronic superhighway?

Database marketers understand the power of information. By using consumer information to target and personalize marketing communications on an individual-by-individual basis, they will carry advertising into the age of Interactive Television.

II. Interactive Television — Assumptions and Suppositions

Writing about Interactive Television is like writing about next week's weather — a sense of general trends, akin to an awareness of the season, undermined by the knowledge that Invention, like Mother Nature, frequently makes nonsense of speculation.

The ideas about marketing presented here, however, need context. As they are rooted in a particular vision of Interactive Television, it seems appropriate to start by sketching that vision, with the caveat that many of the details will be filled out in the discussion that follows. This paper concerns itself with the potential of Interactive Television as a database marketing medium, not with its potential as a teacher or motivator or creative platform. The focus of the discussion is narrow, but must necessarily be influenced by a vision that is broad.

The pace of convergence among the cable television, telephone, and computer industries suggests that within the next 15 years some form of Interactive Television will be on-line in about 50 % of American households. This rough estimate is based on the facts that videocassette recorders had achieved approximately 60 % penetration of American households 12 years after being introduced, that personal computers are projected to have achieved about 40 % penetration by 1995, 20 years after being introduced[5] (*see* Exhibit 2 : Comparative Rates of Adoption), and that the price of a unit of microprocessing power (measured in millions of instructions per second) continues to dive by about 50 % every 2 years[6] (*see* Exhibit 3 : The Declining Cost of Processing Power).

The regionalized nature of current development, including trials of Interactive Television services by AT&T and Viacom, and of primitive video-on-demand services by Tele-Communications Inc. (the latter using traditional VCR technology, rather than digital processing), imply that small pockets of the country will be fully "wired" much sooner than others, and much sooner than 15 years from now. Meredith Flynn, Account Director of the Interactive Media Group at Ogilvy & Mather Direct in New York, estimates that the market will have to comprise "about 2 million" homes before it generates real client interest.[7]

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[5] Gary Stix, "Domesticating Cyberspace" in *Scientific American* (August 1993), p. 106.
[6] "Survey: The Computer Industry," *The Economist* (Februray 27, 1993), p. 8.
[7] From an interview November 30, 1993.

But what will Interactive Television "look" like? The following few paragraphs list the assumptions that underlie this paper's argument.

Infrastructure

• Interactive Television will make possible many-to-many digital communications, allowing real-time dialogue between marketers and consumers (or, more accurately, between marketers' computers and consumers).

• "The current trends in communications recall the earlier transportation switchover from trains on rigid rails to a national network of paved roads to the home. A few companies could monopolize transportation by rail, but millions of cars and trucks could be neither planned nor controlled."[8]

• Data will flow over cable television networks, telephone networks, and through the air. Nicholas Negroponte, director of the Media Lab at MIT, suggests the following distribution: "what currently goes through wires, chiefly video, will move to the air; what currently goes through the air, chiefly video, will move to wires."[9]

Regulation & Competition

• Lawmakers will allow commercial use of the networks, within the limits of privacy protection legislation.

• Local and long-distance telephone service providers, cable television companies, and private computer networks alike will be free to compete in one another's markets.[10] "Competition does more to keep firms honest than a roomful of regulators."[11]

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[8] George Gilder, "Into the Telecosm" *Harvard Business Review* (March/April 1991) p. 159.
[9] Paraphrased by George Gilder in "Into the Telecosm," *Harvard Business Review* (March/April 1991), p.154.
[10] Bell Atlantic has already won a judgement against the 1984 Federal Cable Television Act that prohibits local telephone companies from owning cable television concerns within their service areas (the judgement is under appeal). Bell South recently announced its intention to challenge the law as well.
[11] Mitchell Kapor, "Where is the Digital Highway Really Heading?" *Wired* (July/August 1993), p. 94.

• Analagous to the current marketplace for long-distance telephone services, consumers will choose from a variety of companies in Interactive Television, and will have the option of hiring different companies to administer their local phone service, long-distance service, broadcast television service, Interactive Television service, etc.

• Universal access will not apply to Interactive Television, just as it does not apply to cable television. Public Utilities Commissions, however, will likely ensure that telephone service remains accessible to all, resulting in non-competitive telephone pricing policies.

Interface

• Consumers able to afford Interactive Television services will do so through something "easy and non-computerlike and fun."[12]

• Part of the fun will be an electronic mailbox in which direct response marketers deposit aliases, or software pointers, that allow consumers to "open" marketing messages. Messages might be as simple as scrolling text or as complex as interactive multimedia catalogs. Some will run off remote servers, others will be downloaded to consumer Interactive Television sets. They will all include response mechanisms.

• The first stages of Interactive Television's introduction will be characterized less by full interactivity than by "one-way entertainment coming down through the pipe, with a little upstream capacity to select a movie or an item out of the Victoria's Secret catalog."[13]

Other Media

• There will still be "free" cable television networks that carry broadcast advertising. Not everyone, after all, will jump on the Interactive Television bandwagon, and the pace of change will depend in great measure upon pricing policies and the discovery of "killer applications."

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[12] James Clark, Chairman of Silicon Graphics, quoted by John Tierney in "Will They Sit by the Set, or Ride the Data Highway," *The New York Times* (June 20, 1993), p. 24.
[13] Daniel Weitzner, Senior Counsel for the Electronic Frontier Foundation, quoted in Gary Stix, "Domesticating Cyberspace," *Scientific American* (August 1993), p. 106.

• All traditional direct response media will still be used. Over the next 15 years, the coming of Interactive Television will no more destroy the radio as a viable medium than did the coming of television. People will read books and magazines and newspapers, and pick up their mail daily.

III. An Overview of Database Marketing Strategy

1. Database Marketing

Database marketing is the branch of consumer direct marketing that considers the leverage of customer information to be the marketer's most valuable competitive weapon. Database marketers share two goals:

i. To approach only those consumers most likely to generate profits for the marketing company, either immediately of over the course of the customer relationship.

ii. To approach those consumers with individually personalized marketing messages.

These goals can only be achieved through the analysis, interpretation, and creative use of accurate, up-to-date customer information.

2. Using Customer Information to Determine Expected Profitability

Database marketers avoid approaching customers and prospective customers on the basis of intuition or approximation. Instead, they use statistical techniques to compare the profiles of individuals on internal customer files and rented lists to the profiles of the segments that make up their customer bases. Their goal is to pinpoint those names that show the highest probability of returning profitable revenues (again, either immediately or over the course of the customer relationship).

Marketers use a variety of statistical tools for analysis, in the recognition that "what counts [in predictive modeling] is applying many techniques to vast quantities of high-frequency data."[14] Commonly used tools include multiple regression, multiple discriminant, and cluster analyses, though marketers are increasingly turning to neural networks and fractal modeling in their search for recognizable patterns in thier data. Neural networks in particular are becoming almost common.

[14] "Survey: The Frontiers of Finance," *The Economist* (October 9, 1993), p. 18 .

In conventional statistical analysis, marketers use their intuition to choose, or to help choose, at least some of the variables to be included in a model. As companies track ever-greater volume and variety of data, however, they need sophisticated quantitative solutions. "While people can't easily assimilate more than two or three variables at once, neural networks can perceive correlation among hundreds of variables."[15]

If neural networks are to be run efficiently, however, they need a steady stream of what all statistically-based decision-making tools need — data. "If you use a neural network properly, you will spend 80% of your time cleaning and understanding your data,"[16] and, the really hard part, anticipating your data demands. This strategic aspect of data analysis assures a place in the system for the intuition of savvy database marketers.

Beyond the mathematical principles that ensure accuracy, there are few rules governing the construction of database marketing statistical models. Marketers model customer files to determine the profiles of geo-demographic segments, of segments that respond to particular forms or versions of communication, or of segments that respond at particular times of year. Though in practice most models are driven by applications (who should receive a given mailing? who responds better to telemarketing than to mailing?), the possibilities for segmentation are limited only by the data available and by the marketer's imagination.

A database marketer at a literary magazine, for example, might rent a mailing list from *The New Yorker*, on the assumption that its readership would be more interested than the public at large in new literary offerings. Rather than mail to the entire list, the marketer would process the rented names through a model of his or her existing subscriber base, trying to determine how closely the individuals on the rented list matched the profile of current subscribers who subscribe to at least one other literary magazine (assuming such information is available). The model would return for each name on the list a "score," interpreted as the probability that an individual would respond to a subscription offer.

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[15] Gene Bylinsky, "Computers That Learn By Doing," *Fortune* (September 6, 1993), p. 97.
[16] "Survey: The Frontiers of Finance," *The Economist* (October 9, 1993),p. 19 .

Marketers calculate the Expected Profit for a given individual by **1)** multiplying the probability of response times the Marginal Revenue gained from a positive response to arrive at Expected Marginal Revenue, then **2)** subtracting out the Marginal Cost of making contact (e.g., postage, printing). The profit-maximizing marketer mails only those names that return positive Expected Profit.

Predictive models of this sort are only accurate in the aggregate. No marketer can ever be sure that a particular individual will or will not respond to a given communication, but a marketer sure of a 10 % response can be sure that 100 individuals out of 1000 will respond (always within a reasonable margin of error), allowing him or her to make accurate predictions of profitability for the communication as a whole.

Aggregation does not in any way lessen the importance of maintaining accurate, current data on individual customers. The accuracy of a predictive model is only as good as the accuracy of the information that drives it.

3. Available Sources of Customer Information

Database marketers gather information from both internal and external sources (*see* Exhibit 4 : Sources of Information). Internal sources, including customer purchase histories, contact and promotion histories, and survey responses, are generally acknowledged to be more valuable than external sources: "Marketers have consistently found that performance data ... is the most relevant data when it comes to building reliable predictive models."[17] There are many reasons for this, not least that (ideally) internal information directly reflects what marketers most want to know.

Regardless of the quality of available internal data, however, most database marketers also recognize external sources of information as a needed resource.

3-1 External Sources of Customer Information

External sources provide marketers with both primary data and secondary data. Primary data is provided by customers through questionnaires, surveys, US Census responses, warranty card registrations, and similar vehicles. Secondary data is compiled from databases maintained by third

[17]David Shepard, *The New Direct Marketing* (New York: Dow Jones & Co., 1990), p. 19.

parties like credit bureaus, driver and automobile registration offices, and telephone book publishers. Marketers use both types of information, to fill out incomplete records in their internal databases and to append new fields of information to their existing records.

A simple marketing database, for example, might initially consist of no more than the fields required to track name, address, telephone number, birth date, and income. By taking advantage of external sources, a marketer could append cluster classifications provided by PRIZM, a division of Claritas L.P., on the basis of geo-demographic and "attititudinal" similarity, or vehicle registration information provided by R.H. Polk, Inc.. External information is generally used for such enhancement purposes, rather than as a reliable foundation for a marketing database.

Database marketers also rent lists of names from external sources, which can then be matched against internal database files to eliminate duplicates in a process known as a "merge/purge." Such external lists are frequently used by companies seeking to expand their internal database with response from a communication (usually by print display or television promotion) to a broad target audience. *Sports Illustrated* magazine, for example, might promote the benefits of subscription using a direct response mailing during Super Bowl Week to all households containing teenage boys.

3-2 Internal Sources of Customer Information

The key to gathering useful customer information is in tracking customer contacts. Database marketers track every aspect of customer contacts and attempted contacts, including the kind and version of communication sent out, the kind and timing of customer response, and any information requested as part of the response vehicle. The methods of data capture and the forms of data maintainence vary from marketer to marketer. They depend on the design and intended use of the customer database, and on the data capture capacity of the designated response media.

3-3 Traditional Response Media

Database marketing communications always request a customer response. Traditional response media include inbound telemarketing (1-800 and regular toll telephone numbers), mail (Business Reply Cards and Envelopes), and fax (1-800 and regular toll numbers). The different media demand different capture technologies.

Telemarketing systems rely on operators who answer incoming calls and enter information into computer database systems, and on automated tracking systems that record the date, time, and duration of incoming calls, matching the data to the operator-entered information in the database. Telemarketers frequently attempt to capture "extra" primary customer information by having operators ask questions of callers before they complete a call.

Business Reply Mail is addressed to a central or regional post office, where it is opened and its contents, along with relevant details about its receipt (e.g., date) recorded by data entry staff. Fax communications come in to centralized phone numbers, where their contents are data entered in the same way that mail contents are.

All these response media require that a human operator translate the customer response into machine-readable form by entering it through a computer keyboard. Only telemarketing systems and "bubble"-type print surveys allow for any automated response tracking. Once data has been entered, the appropriate details are forwarded both to the main customer database and, if necessary, to a fulfillment center that handles any response required of the marketer (e.g., ship a catalogue, ship a product).

New Response Media

A number of innovative marketers have recently taken advantage of the falling prices and increasing power of computer technology to implement new response media solutions. Among the more successful have been interactive kiosks, menu-driven telephone ordering systems, and on-line computer shopping and information services. In all of these cases, the response tracking procedure can be almost entirely automated, with the relevant data captured, entered directly into the customer database and copied to the fulfillment center, all without manual intervention.

Though most technologies that enable such response media are still too expensive for wide-spread distribution, the continuing fall in the price of technology, combined in some cases with a dramatic increase in postal rates[18], is driving their adoption. Recent examples of inventive introductions include Viacom and MTV's jointly produced "Free Your Mind" kiosk, available for use on the 1993 Lollapalooza tour,[19] and Intouch's "i-station," an interactive kiosk system that gives music

[18] Combined postal rate increases for third-class mail in 1988 and 1991 averaged over 50%, up to 80% (Direct Marketing Association: *DMA Government Affairs Conference Issue Briefing Guide*, May 1993).
[19] Robert E. Calem, "Updating TV Programming Skills for the Interactive Age" *The New York Times* (July 25, 1993), p.11.

store browsers a chance to hear snippets of various compact discs and cassettes in exchange for simple demographic information about themselves.

Intouch information is recorded in the kiosk's database for transfer to music industry databases. Joseph Proctor, CFO of Catalina Marketing, a partner in the i-station introduction, "remarked that the ability to track database information through kiosks is 'household marketing at its finest -- without any mailings."[20]

Of all new response media solutions, however, perhaps none shows so much promise as Interactive Television. For the purposes of direct response database marketing, the most important features of Interactive Television will be the way it enables two-way communication between marketers and individual customers, and personalization of marketing messages.

Interactive Television will allow marketers to present consumers with marketing messages that request responses, and to offer same-media opportunities for immediate response. The ongoing success of Direct Response Television programming, defined as any television advertisements that feature a response vehicle (1-800 telephone numbers are the most popular), and of such shopping "networks" as QVC and Home Shopping Network, show that consumers are comfortable with the notion of immediate response. In1992, infomercials alone accounted for between $ 750 million and $ 1 billion[21] of a $ 2.5 billion market for televised home shopping.[22]

The success of the sales tactics employed by the shopping networks implies that consumers are particularly likely to respond if they believe that operators are standing by telephone lines at the moment that the advertisement airs. A good proportion of consumers appear ready to embrace a system that allows them to indicate preferences and place orders from their televisions.[23]

As consumers purchase goods or services, and as they request product information, their choices will be recorded in the same way that requests made through telemarketing or Business Reply Mail are recorded. The difference is that marketers will no longer rely on human translation of data into digital form. The translating capability will instead be placed out at the fringes of the

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[20] Jim Emerson, "Intouch Group Completes Testing of Interactive Multimedia Kiosk," *DM News* (May 17, 1993).
[21] "Invasion of Infomercials Turns TV Into Video Mall," *The Boston Globe* (February 7, 1993), p. 19.
[22] Scott Donaton, "Home Shopping Networks Bring Retailer on Board," *Advertising Age* (April 19, 1993), p. S-8.
[23] In 1991, 18.3 % of American women and 12.3 % of American men reported watching television shopping programs. 4.5 % of women and 2.8 % of men reported buying products advertised on the programs. Source: "Simmons Market Research Bureau: 1991 Study of Media and Markets" in DMA Statistical Fact Book 1992/3, p. 169.

Interactive Television network, where consumer actions (e.g., pressing a button, clicking a mouse, or otherwise) will be represented instantly as digital streams of information.

4. Using Customer Information to Personalize Marketing Communications

Interactive Television, as a many-to-many communications system, is equally attractive to database marketers on another front, the personalization of marketing communications. Direct response marketing communications share the following major components, each of which can be customized to suit the behavior trends and personal characteristics of individual customers, and the timing of particular messages:

i. The Product. Every marketing message asks for consideration of a product, service, piece of product or service information, or request for information (e.g., survey). For the sake of simplicity, this paper refers to any of these as the "Product."

ii. The Product Positioning. Every Product is a bundle of benefits. Product Positioning emphasizes specific benefits for specific audiences. In this context, those benefits include price.

iii. The Offer. As every direct response message requests action, marketers include Offers, bribes that encourage action. Different offers are appropriate for different audiences. Familiar examples of Offers are free sweepstakes tickets, and nearly-free books.

iv. The Timing. It is well established within direct response marketing circles that response rates for virtually any program vary with timing. Here is David Ogilvy on the best timing for Direct Response Television advertising: "The most productive times are early morning, late evenings, and weekends. January, February, and March are the most profitable months."[24] Timing is important on an individual level as well, as best exemplified by the concept of "magic moment marketing" in the insurance industry, which takes advantage of the fact that people are far more likely to buy or renew life insurance policies on or around their birthdays.

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[24] David Ogilvy, *Ogilvy on Advertising* (New York: Vintage, 1985), p. 149.

v. The Creative Presentation. The Product is Positioned and the Offer introduced by Creative Presentation, ranging from the words in printed or spoken copy to photographic or video images to overdubbed audio tracks. The potential variations in Creative Presentation for any communication are virtually endless.

vi. The Medium. Individuals respond differently to communications in different Media.

Database marketers often hold up as their ultimate goal "segment of one" (or "universe of one") marketing. They theorize that if they were able to treat each individual customer as his or her own market segment, in accordance with that individual's circumstances and timing, they would stand a better chance of convincing each individual to buy products and services. Personalization would include the choice of particular Products for promotion and the customization of Product Positioning, Offer, and Creative Presentation.

The logic of marketers' argument is simple and compelling: The more a marketer knows about the wants, needs, and attitudes of a given market segment, the more likely the marketer will be to address that segment in a persuasive way (assuming competent creative execution), thereby convincing a higher percentage of the segment's members to respond positively to the marketer's request for action. The smaller the segment to be addressed, the more precisely the marketer can customize communication, and the more effectively he or she can persuade. The ideal segment, from this point of view, is the segment of one.

Recall that communications priorities in database marketing are driven by expected profitability, where expectations are based on the degree to which individuals match the profiles of existing customer segments. Marginal costs of contact vary with media and with the kind and degree of customization, while marginal revenues vary with the products on offer. The incremental increase in response rate from customization of communication must outweigh the associated incremental costs on an individual-by-individual basis, or the marketer's expected profit will shrink.

Just as database marketers use statistical analysis to determine which customers return the highest expected profitability for a single communications program (or over the life of the customer relationship), so can they determine for an individual customer which combination of Product, Product Positioning, and Offer, of a limited number of choices in each case, returns the highest

expected profit.[25] The choices on offer at any time are the result of extensive and ongoing testing and historical data analysis.

4-1. The Product

Product choice affects the marginal revenue from a customer order, as in most direct response business different products return different net contributions to promotion and profit, net of returns, cost of goods, and overhead (fixed costs). Product bundling strategies, too, might be effective choices for marketers selling products that cross-sell to a number of statistical profiles. Cataloguers, for example, often sub-divide their main book into smaller books that contain merchandise more likely to attract targeted individuals (e.g., catalogues of children's clothes are not included in mailings to teenagers).

4-2. The Product Positioning

Positioning choice will affect the rate of response, in that identical products often sell on different benefits to different consumers. As such, positioning choice affects not marginal revenue but expected marginal revenue. A CD-ROM drive for use with a personal computer, for example, might sell to parents when positioned as an educational tool, and to librarians when positioned as an opportunity to access information in a new and more efficient way.

Positioning choice is unlikely to affect marginal revenue directly, unless the marketer practices some form of implicit price discrimination, setting different prices for different target individuals, depending on their circumstances and timing. For the purposes of this discussion, assume that no such discriminatory arrangements are feasible.

4-3. The Offer

Offer choice affects the marginal cost of contact. An offer of a free briefcase, for example, may cost a company more than an offer of a free calendar. If the choice of offer increases the probability of response (i.e., increases expected marginal revenues) enough to offset the difference in marginal cost, the more expensive offer is the more profitable choice. Note that the choice of

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[25] The incremental costs of running individual names through statistical analysis are not high, relative to the variation in costs and revenues triggered by the results of the analysis, and thus can reasonably be included as overhead, rather than as a component of the marginal cost of contact.

offer can represent a more subtle form of price discrimination, one that is subject to fewer legislative restrictions.

4-4. The Timing

Timing choice does not directly affect marginal costs or revenues, though marginal costs may be indirectly affected in the following way: if the production or distribution (or both) of personalized marketing messages in the chosen medium is subject to economies of scale, and statistical indicators predict that a given group of individuals should receive personalized communications at roughly the same time (e.g., a watch maker marketing to financial services workers at bonus time), the marketer might make cost savings in production or distribution of marketing messages.

4-5. The Creative Presentation

Creative Presentation choice is the second most important factor in determining the marginal cost of contact. Creative teams work to formulate the presentation of the Product Positioning and Offer that will return the highest expected profitability. Multiple individuals receive identical combinations of Positioning and Offer (assuming a limited number of choices for both), but Creative Presentation can be uniquely tailored to individual preferences.

Of the five factors discussed here, Creative Presentation, not surprisingly, is the one most resistant to statistical analysis. Though it is generally accepted that Creative Presentation is responsible for only about 10 % of the variation in a direct response campaign,[26] it is still true that Creative Presentation, from the viewpoint of the customer, *is* the company. It is therefore critically important that Creative Presentation is appropriate for the target audience.

For the purposes of direct response marketing, creative work generally consists of two interconnected elements, format and content. Format, templated into limited choices, is responsive to statistical analysis; content, customized by individual, is less so.

Creative Format

Direct response marketers who send templated presentation formats to different broad target segments quickly discover, through testing, which templates return higher profitability better than

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[26] David Berger & Mary Roberts, *Direct Marketing Management* (New Jersey: Prentice Hall, 1990), p. 7 .

others. Magazine publishers, for example, know well that certain bound-in subscription cards "pull" better than others, purely as a consequence of the creative template in use (bear in mind that the10 % variation in response noted above represents a significant difference in overall profitability when applied to tens of millions of customer contacts). They test new templates against past successes constantly, in search of higher rates of response and profitability.

Even in a world of individualized communication, testing and analysis of response to templates can be effective in predicting expected profitability. Though no one individual receives more than one format, marketers can easily gauge their success across the segments in the customer base, including across those prospects who score high matches to segments of the customer base.

Creative Content

The content of Creative Presentation, however, presents a different challenge, one that is particularly relevant to new of "narrowcast" media like Interactive Television. Individualization of content reflects customer information in such a way as to stimulate response, given a specific combination of Product, Positioning, Offer, Media, and Creative Format. Content offers opportunities to template, but also to insert specific customer information in strategic ways.

A tour operator, for example, sends all of its customers post-tour communications. The company includes a customer satisfaction survey, personalized with the customer's name, address, trip name, and trip date. It includes a chatty letter, personalized not only with the customer's name and address, but also with a humorous paragraph, written by the trip guides, that refers directly to incidents on the trip just completed. The company's ultimate goal is to insert paragraphs customized by individual, rather than than by trip group -- "Dear Bob and Diane, Welcome back from your trip to France. How was your dinner at Jules Verne?" -- in hopes of building and maintaining a more personal dialogue with customers.

But is it necessary to individualize down to the paragraph? Might some travelers be "turned off" by the fact that the company keeps records of their activities in this way? Is it worth the cost of gathering the relevant information, writing the paragraphs, and employing the technology to print them? What if the guides get something wrong?

The reaction to Creative Content, perhaps more than to any other factor listed here, is the result of individual psychological make-up, of what marketers call "psychographics." Stan Winston, Executive Creative Director at Ogilvy & Mather Direct, comments:

> The universe of one is slightly nonsense. Psychographics always come into the mix -- how do you target people by how they feel about something? How can you possibly know? The problem with statistics is that averages don't mean anything unless you're communicating to averages -- if you're not careful, you're going to think that you know more than you know. And that's when you can make a big mistake.[27]

Customization of content clearly represent both an opportunity and a potential liability. This should not detract from the larger opportunity presented by customization of marketing communications from Product outwards.

4-6. The Medium

Media choice is usually the most important factor in determining the marginal cost of contact. As the increasing cost of different media, like the cost of different offers, can be offset by increasing expected marginal revenues, the efficiency of different media is usually measured not by cost of contact, but by Cost per Order, or Cost per Inquiry.

Outbound Communications Media

In order to send individually targeted communications, database marketers need access to a many-to-many communications network. Many-to-many networks allow all points on the network to communicate with any or all other points on the network. When a marketer contacts a customer over a many-to-many network with a request for a response, for example, the customer has the ability to respond via the same media channel. Most importantly, the marketer can "narrowcast," sending different messages to every individual on the network.

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[27] A compilation of commentary from an interview conducted on September 28, 1993, in New York.

Broadcast Marketing Communications

Broadcast communications are one-to-many communications, where a transmission from one point on a network reaches a number of other points on the network. When a marketer broadcasts a message using current technology, the individuals who wish to respond do so through other media (e.g, telephone, mail). Media currently used for broadcast communications include television (cable and network), print display (magazines, newspapers), newspapers (e.g, free-standing inserts, promotional brochures), and radio. Interactive kiosks act like broadcast media, yet provide same-media response, often on-line, and fully automated data capture.

All broadcast media share the same purpose: to generate measurable individual responses from relatively untargeted communications. No marketer knows for sure who will tap into his or her interactive kiosk display, or hear his or her message on the car radio. Broadcast media providers measure and describe their audiences through a variety of ratings systems. Though these general demographic indicators are helpful to marketers, and allow them to achieve rough audience segmentation, they provide little useful information at the level of individual database records. A magazine publisher, for example, can claim that 35 % of its readers are Hispanic; as these figures are extrapolated from samples used in surveys, the publisher cannot tell a database marketer the names of the individuals who comprise the 35 %, and the marketer cannot contact the 35 % with a targeted mailing.

Database marketers are not broadcast marketers, though they do occasionally use broadcast media as both a source of new names and a way to support more targeted communications. Broadcast messages can act as front-line screening devices, requesting response from only particular segments within the broadcast audience (e.g., "travel agents only, call our hotline today. Have your IATA number ready to qualify for a special sweepstakes offer."). Analysis of the resulting responses can yield information allowing marketers to target.

All broadcast media, including cable television touted as "narrowcast" television programming, lies within the auspices of direct marketing, rather than of database marketing.

Direct Response Television

Direct Response Television (DRTV) is broadcast network and cable television advertising that contains a request for a response from viewers, usually through a 1-800 toll-free telephone number (*see* Exhibit 6: Direct Response Television Structure). Target audiences are imprecise, as

television rating and survey systems cannot hope to deliver the same level of individualized information as primary direct response information.

Despite the lack of targeted communication, the medium continues to return profitable levels of Cost per Order and Cost per Inquiry. Cable network television is somwhat better targeted than broadcast network television, which is more cost-effective. A 1991 survey, for example, found that 59 % of direct marketers rated cable network television as "extremely cost-effective," while only 35 % of the same group rated broadcast network television the same way.[28]

DRTV has grown to include not only 30-, 60-, and 90-second advertisements, but also 30-, 60-, and 90-minute infomercials and 24-hour channels, QVC and Home Shopping Network, devoted to delivering direct response marketing messages. The growth in DRTV has been caused by the proliferation of inexpensive cable television time for sale, the growth and corresponding decline in price of inbound telemarketing systems, the rise of affordable package delivery vendors, notably UPS, and the increasing consumer acceptance of placing credit card orders over the telephone. Together with the opportunites presented by this economic convergence, driving down the price of providing quick response and fulfillment, marketers have taken advantage of the fact that "more Americans have TV's than plumbing, and they're on an average of seven hours a day."[29]

Marketers use different versions of DRTV communications by market, both by geography and by timing. A Midwestern state's board of tourism, for example, advertises tourism destinations throughout the Midwest, captioning the video with specialized driving distance information: the Chicago market learns how far a given park is from Chicago, and can call a 1-800 number for more information; the Cleveland market learns how far it is from Cleveland, and can call a different 1-800 number for information.

Day-to-day timing in DRTV is mostly a question of association with specific programming. Counterintuitively, the best time to advertise for direct response is not necessarily during highly rated programming, when viewers see advertising as an intrusion. Instead, direct marketers wait for the moments at which viewers are bored, and ready for distraction. As David Ogilvy points out, "the better the program on which your commercials appear, the fewer sales you will make."[30]

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[28] Source: "Myers Marketing & Research, 1991 Survey on Marketing Effectiveness & Media Value" in *DMA Statistical Fact Book 1992/3*, p. 28.
[29] Bill McKibben, *The Age of Missing Information* (New York: Random House, 1992), p. 19.
[30] David Ogilvy, *Ogilvy on Advertising* (New York: Vintage, 1985), p. 149.

Narrowcast Marketing Communications in a Many-to-Many Environment

Currently, the only many-to-many networks widely available for public use in America are the US Postal Service, package delivery services (e.g., Federal Express, UPS), the telephone system (long-distance and local, including facsimile), and the Internet. Discounting for a moment the small amount of marketing activity on the Internet, only two marketing methods use many-to-many networks for narrowcast communications: direct mail (both independantly and in subscription magazines) and outbound telemarketing. Both these media depend on "versioning," the former in the printing of communication to be mailed or inserted into magazines, and the latter in the "scripts" read by telemarketing operators, either printed onto paper or displayed on a CRT screen.

The mechanics of versioning are almost as simple (with the exception of cross-platform data transfers, often complicated by software incompatibility) as those that govern mail merge features in commercially available word processing programs: information from source files (e.g., database text fields) is ported into master document files, then laser-printed on an uninterrupted, record-by-record basis (*see* Exhibit 5 : The Versioning Process). As the price of both computing power and laser printing capacity drops, this process of "on-line lasering" is becoming increasingly attractive to database marketers. Joyce Jackson, the production manager at Ogilvy & Mather Direct in Toronto, remarks, "if it can be programmed, we can do it."[31]

Though print versioning has long been restricted to black and white documents within a narrow band of paper formats, recent breakthroughs in printing technology have allowed more marketers to experiment with versioning in high-definition, four-color environments. William R. Thompson, "a printing consultant and adjunct professor of graphic arts at the University of Wisconsin ... estimates that two-thirds of [the] market [for versioned black-and-white printing] would convert to full color if the high initial costs of setting up the presses could be reduced."[32] Online lasering promises to avoid traditional presses altogether.[33]

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[31] From an interview conducted on September 20, 1993 in Toronto.

[32] John Holusha, "Gutenberg Goes Digital," *The New York Times* (December 5, 1993), p. F-11.

[33] Though the capital needed to acquire in-house 4-color capacity is substantial (over $300,000), service bureaus are sure to stock the requisite equipment and expertise in short order. Source: John Holusha, "Gutenberg Goes Digital," *The New York Times* (December 5, 1993), p. F-11.

Outbound Communications Media Choices

Though versioned direct mail and telemarketing are the leading media for personalized marketing communications, Interactive Television and its precursors could drive the database marketing industry towards video- and audio-based versioning. Versioning for television is not a new idea, as geographically segemented Direct Response Television shows, but never has it been attempted on the scale suggested by mass customization under Interactive Television.

Interactive Television

In targeting Interactive Television messages, marketers will use statistical analysis to determine Product, Positioning, and Offer choices. Creative format, while still likely to be templated in order to facilitate measurement, will become multidimensional and combinatorial, as the multiple media of Interactive Television communications (video, audio, text, and both animated and still graphics) all allow for customization and templating. Though this presents a need for greater statistical and computer firepower, it is hardly an insurmountable obstacle on the road to mass personalization.

The state tourism board mentioned above, for example, might choose to version its content by indicating to viewers the approximate driving time not from their cities but from their neighborhoods, and offer to give them door-to-door directions the moment the viewers respond to the message. This straightforward extension of an existing idea points the way towards the kind of personalization that marketers could start doing tomorrow, given appropriate media and processing power.

In situations where consumers are presented with a wide variety of choices, cleverly templated interactive marketing communications could respond instantly to customer decisions. The technology to enable on-line statistical analysis exists today, and is regularly used, albeit at low levels of data complexity, in interactive kiosks.[34] When customers request information, they send a query to a database, which provides both the information and the option of asking for more information. Subsequent requests for information, together with a statistical analysis of the requests, alter the original query in a repeating loop that ensures that customers find the information that satisfies their requests.

[34] From an interview with Mitch Rapaport, Technical Director at the Interactive Media Group at Ogilvy & Mather Direct in New York.

Early Interactive Television advertising will likely be a descendant of QVC and Home Shopping Network. On the model of direct mail, marketers will send personalized Interactive Television marketing messages to consumers and households, to be inspected (and responded to via Interactive Television) at the leisure of consumers (*see* Exhibit 7: Direct Response Interactive Television Structure).

This scenario brings up questions worthy of further consideration. Consumers surely will not be subjected to the Interactive Television equivalent of the daily delivery of "junk" mail that now breeds more fury than appreciation. Given the number of marketers in America and the relative ease with which they might be able to send messages into the Interactive Television universe, the potential for "electronic junk" is staggering. Marketers know this, and they are concerned. Just as they become able to deliver personalized communications, the recipients may demand the power to refuse them.

Before any messages are delivered via Interactive Television, however, marketers will have to be convinced that the medium will be a cost-effective alternative to traditional media, as disussed in the following section.

IV. The Costs of Targeted Marketing Communications

1. Introduction

Though few observers would argue that Interactive Television will have an impact on the direct response marketing mix, it is unlikely that Interactive Television will replace traditional direct response advertising media, for two reasons:

> **i.** Direct Response Interactive Television programming carries high (fixed) costs of multimedia Creative and Production work. Not all marketers will be able to afford the investment.
>
> **ii.** Database marketers make strategic media choices on an individual-by-individual basis, because they know that consumer reactions to marketing messages are influenced by the medium through which they receive those messages. Some consumers prefer to respond to direct mail, while others respond more readily to telemarketing initiatives. The same trends hold with regard to inbound media. This makes an Interactive Television monopoly on media improbable.

Interactive Television will compete for database marketing dollars more with some media than with others, and with none more than Direct Mail. Despite its low-tech format, Direct Mail offers marketers much of the flexibility they say they want from Interactive Television, with smaller upfront risk. Marketers send Direct Mail messages to consumers, who inspect them and respond at their leisure, often over the telephone.

Marketers using Direct Mail also have plenty of opportunities to capture response information, and a proven path to profitability. A 1991 study by *Direct* magazine suggested that 71.4 % of direct marketing budgets for consumer markets were spent on Direct Mail.[35]

Throughout this next section, the focus will be on comparing Direct Response Interactive Television with Direct Mail, with other media referred to only as they become relevant to the central discussion.

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[35] Source: Direct Marketing Association, *DMA Statistical Fact Book, 1992/3* (New York: DMA, 1992), p. 48.

2. How Best to Measure Effectiveness?

In the database marketing formula, Expected Profit depends on the probability of response, the contribution generated by a response (Marginal Revenue) and the cost of response generation (Marginal Cost of Contact), on a per-name basis.

For example, if a marketer mails a package to 1,000 people, each of whom have a calculated 70% chance of returning $1.00 in Marginal Revenue, the Expected Marginal Revenue (EMR) for each person is $ 0.70. Marginal Cost of Contact (MCC) must be under $ 0.70 per person, assuming it costs the same amount to contact each person. The excess after MCC is subtracted from EMR is Expected Profit.

A discussion pitting the challenger, Direct Response Interactive Television (DRIT) against the incumbent medium, Direct Mail (DM), must involve both EMR and MCC projections. Assume, for simplicity's sake, that the Marginal Revenue generated by a successful response is equal across media, perhaps because a company is trying to decide on the best way to sell its lone product.

The media must then be judged on the basis of response stimulation and cost. DRIT, however, does not yet exist. Despite the success of infomercials and QVC, neither of which are precisely targeted, nor personalized, no proof exists that DRIT will be any more successful at stimulating response than Direct Mail already is. Interactive Television's flash and pizzazz may be unrivalled, particularly in press hype, but will it *sell*?[36]

Ignore for a moment the broad campaigns that will inevitably win advertising industry awards, and concentrate on the fact that Direct Mail is not only successful, it is becoming more successful all the time, driven by the power of relational database technology. The real question is not, "when will Interactive Television take over the marketplace?" It is, "Can Direct Response Interactive Television beat Direct Mail at all?"

Both DRIT and DM harness information needed to personalize and to target. There is no way to know which will "pull" better in 2001, nor why, nor will there be a way for many years, until DRIT has been thoroughly tested. With no current reason to believe that DRIT will pull better

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[36] To quote Rosser Reeves: "Do you want masterpieces? Or do you want to see the goddamned sales curve start going up?" From Rosser Reeves, *Reality in Advertising* (New York: Alfred A. Knopf, 1961), quoted in David Ogilvy, *Ogilvy On Advertising* (New York: Vintage, 1985), p. 25.

than DM, and no reason to believe that it will pull worse, the remainder of this discussion will assume that the two media will pull about the same, on average.

This puts the burden of comparison squarely on the relative Costs of Contact. The Marginal Costs of Contact using DRIT must be very close to, or less than, the MCC using Direct Mail, or marketers will have no reason to switch resources from Direct Mail to Direct Response Interactive Television.

3. The Costs Of Contact

Media with high variable cost components, like direct mail, tend to return a fairly constant MCC over a range of mailing volumes. The average per-name fixed cost of Creative work declines steadily with increasing volume, pulling Marginal Costs of Contact down with them. MCC cannot, however, fall below the (constant) level of average per-name variable costs (e.g., Postage, Production). This diminishes the availability of opportunities to reap economies of scale through defraying of fixed costs.

Media with high fixed components, like infomercials, return a high MCC at low volumes and a low MCC at high volumes. Here too, the variation in MCC is tied to the fixed costs, but the components of fixed costs are both Creative work and Production work. Infomercials cost nothing to broadcast once they have been ported to tape, beyond the cost of media time. While this structure increases the losses incurred by the first few viewers of the commercials, it significantly increases the profits from viewers contacted beyond the break-even point (*see* Exhibit 8: Cost Structures Compared (fixed EMR) and Exhibit 9: Cost Structures Compared (variable EMR)).

Though the mechanics of DRIT follow those of Direct Mail, the economics of DRIT more closely follow those of infomercials. Considering that 59% of direct marketers n 1991 felt that cable network television was the most price-efficient medium, on an all-around basis, compared to 30% who felt the same way about Direct Mail, DRIT appears to be built on the right foundation.[37] At the same time, Direct Mail garners the highest share of database marketing budgets, as noted earlier, suggesting that targeting and personalization are valuable assets indeed. Research shows

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[37] Source: "Myers Marketing & Research, 1991 Survey on Marketing Effectiveness & Media Value" in *DMA Statistical Fact Book 1992/3*, p. 28.

that accurate targeting, getting messages to the "right person," accounts for about 50 % of the variation in response to a targeted program.[38]

Even the most sophisticated database marketers cannot target accurately without accurate information, however. In this respect, direct mail has a clear advantage over cable and broadcast network television, in that it is "trackable." Marketers using direct mail know exactly who received which communications, and know how they reacted (e.g., response, no response, timing, etc.). 68 % of marketers say that direct mail is an "extremely" effective way to measure marketing effectiveness, as compared to only 23 % and 16 % who say the same thing about broadcast and cable network television.

4. The Database Marketer's Ideal Medium

Database marketers need a medium that offers the targeting, personalization, and response characteristics of direct mail, but which offers the low variable cost structure that has helped to make Direct Response Television a success. That medium may be Interactive Television.

Digital communications are similar to analog television broadcast communications in that they are quite expensive to produce, but afterwards exist as essentially costless streams of electrical information. DRIT marketers with fully crafted and versioned communications in hand will pay for no production and distribution costs beyond tolls for network usage. Profitability in Interactive Television will depend on a high initial investment in Creative and Production work being paid down by targeted audience volume, and, consequently, response volume.

Interactive Television will also offer the marketer all the flexibility of direct mail in targeting and personalization, without the burden of high variable costs, and the ability to track response as well as direct mail marketers do, but without some of the associated costs (e.g., manual data entry).

5. Direct Response Interactive Television & Direct Mail Costs Compared

The economic forces driving marketers to Interactive Television depend on a number of assumptions about the costs of Interactive Television, as discussed below. Most critically, they depend on the availability of the technology in the consumer marketplace. Until consumers can plug in to the Interactive Television network, marketers will not adopt the medium.

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[38] Mary Roberts and David Berger, *Direct Marketing Management* (New Jersey: Prentice Hall, 1989), p. 7.

Separate from the costs discussed below are costs common to both DRIT and DM, such as database maintenance and information enhancement costs (for more details, turn to Appendix 1). The costs compared here are those that spell out the cost-side differences between DRIT and DM, in an attempt to discover which might have an "edge," and where.

The cost structure of personalized Direct Response media is made up of the following elements:

Fixed Costs:

5-1. Creative development costs.

Variable Costs:

5-2. Production costs.
5-3. Outbound Media costs.
5-4. Inbound Media costs.
5-5. Response tracking costs.

5-1. Creative Development Costs

The creative development cost for CD-ROM-based interactive multimedia products for the consumer market is anywhere from $100,000 to $500,000. Effective marketing presentations on Interactive Television will probably cost within this range to create. "Though some corporations feel compelled to spend half a million dollars, there isn't much improvement in quality beyond $200,000,"[39] according to Maryam Mohit, a multimedia producer at the Voyager Company in New York City.

The cost of creative development, then, will be about ten times the costs of the creative development costs for a typical direct mail package,[40] and will approximately equal the costs of a typical 60-minute infomercial.[41]

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[39] From an interview October 12, 1993.
[40] A typical direct mail package might include direct fixed creative costs of about $11,000. Source: *Shell Alpert's Costimator*, Shell Alpert, Alpert O'Neil Tigre & Co., 1992.
[41] "For the price of producing a standard 30-second or minute spot - between $150,000 and $300,000 - companies can make an infomercial." Joanne Ball Artis, "Invasion of Infomercials turns TV into Video Mall," *The Boston Globe* (February7, 1993), p. 19.

5-2. Production Costs

Whether marketers send text, graphics, audio, video, or animation to Interactive Television subscribers, it will be in digital form. Already, producers in all these media are working with computers. Across a host of media, images, sounds, and text are maintained in digital form until the final stages of the production process, when the information is ported to various "hard" media form. Variable costs of Production are only incurred during this last transformation.

Digital communications are never "hard." They exist only as streams of information, with no packaging save digital routing instructions. The variable costs of Production, therefore, are close to nil.

Direct Mail production costs, on the other hand, account for as much as 40 % of the total variable cost of a mailing. Though mailing format varies enormously, most include some standard elements. As a ballpark estimate, the cost for a mailing that includes a 4-page, 2-color non-personalized (litho) letter; a 16-page, 4-color booklet; a 2-color reply card; a one-color reply envelope; and a 2-color outer envelope, including the costs of stuffing envelopes and running address labels, will be about $0.25 per name. Personalization of just the letter drives the cost to $0.28 per name.[42] Further personalization, in 4-color or brochure format, increases costs exponentially. Catalog mailings often cost well over $3.00 per name.

5-2. Outbound Media Costs

At this early stage of the development of Interactive Television, it is impossible to predict network access charges. Too much depends upon the coming regulatory environment, and upon the demand for Interactive Television services other than marketing communications. Some speculation is possible, however, based on the current costs of communications media.

It seems likely, though by no means certain, that network use will constitute a low-margin, high-volume source of revenues for communications conglomerates. Such a model would drive openness on the network according to the prescription of, among others, Mitchell Kapor, founder of Lotus Development and the Electronic Frontier Foundation: "The purveyors of network

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[42] Source: Shell Alpert, "Shell Alpert's Ballpark Costimator" in Direct Marketing Association, *DMA Statistical Fact Book, 1992/3* (New York: DMA, 1993), p. 67.

service could simply decide that a business strategy that encourages the widest variety of content sources and originators will dramatically increase network usage. A few pennies per transaction will eventually add up to billions of dollars in revenue."[43]

At least one prominent player in the telephone industry makes no secret of his company's intentions: " 'Everything we are doing is designed to put more traffic on our network, to enhance the value of our network,' said Robert E. Allen, chairman and chief executive, at AT&T's main campus."[44]

Basic Access Costs

The best way to predict the cost of network access (without per-use charges) may be through comparison with current costs of access to various networks, assuming constant 1993 dollars throughout. Basic telephone service costs about $30.00 per month-line, depending on the kind and availablility of service options. Cable television (in Manhattan) costs about $30.00 per month, again depending on the services ordered. Personal computer services such as Compuserve and America Online cost on the order of $10.00 per month for basic access. Combined, this is $70.00 per month, just to participate in the systems.

Starting from the asumption that an Interactive Television system will include television, telephone, and computer network access (provided by any number of competing companies), it is unlikely that access to the system would cost more than $70.00. One important reason is that cable television currently provides a steady stream of entertainment, combined with a small number of pay-per-view options. Interactive Television, however, will present something more like a basket of pay-per-view opportunities, combined with limited "free" broadcast programming. Consumers, in other words, will get less for their monthly payments, and are unlikely to pay more for less.

The real question from the marketer's point of view is not the cost of access for consumers but the cost of access for providers of programming. No adequate model exists, but telemarketing may be the closest, as telemarketing calls get to consumers across a network, and evoke immediate direct response (when they are answered). The cost of access to the marketer is almost entirely the cost of leasing telephone lines, or about $30.00 per month-line.

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43 Mitch Kapor, "Where is the Digital Highway Really Heading?" *Wired* (7/1/93), p. 54.
44 Edmund L. Andrews, "AT&T Reaches Out (And Grabs Everyone)," *The New York Times* (8/8/93),p. 31.

Similarly, operators of computer Bulletin Board Services pay mostly for telephone line leasing, as dial-ins from users come in over the phone lines. Even online services like Compuserve depend on consumers dialing in over the telephone networks, though a second tier of communications occur over the Internet. In both these cases, as with telemarketing, the total costs of access vary in steps with the volume of communication, at about $30.00 per month-line.

There is, unfortunately, no basis for comparison with the costs of Direct Response Television, where "air time for infomercials can costs as little as $100 for an undesireable slot on a small station to an average of $50,000 for Saturday morning on a network affiliate."[45]

The best estimate for what a marketer would pay for net access, then, may be a monthly maintenance fee of $70.00 per line, multiplied by the number of lines he or she needs to service both outbound and inbound communication. A "line" in this case might be defined as the technical apparatus necessary to maintain communications with a single consumer, whether or not that includes the use of a dedicated length of copper wire.

Per-Use Costs

Per-use charges are more difficult to estimate, in part because no-one knows whether network providers will charge by connect time, by bit volume, by distance, by time of day, or by a combination of all four. The billing system employed by the telephone system of today takes into account distance, time elapsed, and time of day, but not the amount of data transferred. Time and bit volume are linked through data compression technology and available bandwidth. This means that different marketers could send identical messages over identical wires, but in radically different elapsed times. The current system used by on-line computer services keys connect time charges to the rate of data transfer, regardless of compression.

A user who logs on to Compuserve at 9,600 baud (bits per second), for example, pays $0.27 per minute to download a whizzy graphics file, while a user who logs on at 2,400 baud pays $0.13 per minute. The first user benefits from his or her modem capacity, as he or she gets four times the data transfer rate for about twice the price.[46] The faster data transfers, the lower is the associated

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[45] Joanne Ball Artis, "Invasion of Infomercials turns TV into a Video Mall," *The Boston Globe* (February 7, 1993), p. 18.
[46] Source: Compuserve. Rates as of December 1, 1993.

time, and therefore the lower is the opportunity cost at the network provider. It pays to encourage the use of fast modems.

Similarly, files are often compressed before being made available for downloading. The higher the compression ratio, the less time a file takes to transfer, assuming a constant data transfer rate. Compression technology leverages bandwidth. It is crucial to the widespread introduction of Interactive Television, because the only switched network currently used by virtually all consumers North America is the telephone network. That network is 95 %[47] made up from "conventional copper wires, operating at 4 kilohertz, [which] can handle some 9,600 bits per second -- somewhat more if crammed by a high-speed modem."[48] Many standard modems now handle 14,400 baud and higher.

An hour of uncompressed video, with sound, takes up about 315 megabytes of storage space. To download this at 9,600 bps, across telephone lines, would take about 4.23 days.[49] "The communication of high-definition, full-motion images and high-fidelity sound will require some 200 million bits per second,"[50] about 21,000 times more bits per second than copper can handle. Clearly, this kind of transfer does not suit marketers hoping to give consumers access to customized multimedia brochures, either through download or call-up.

There are two ways to get around this problem: rewiring and compression. Though coaxial cable (which downloads analog video signal for cable companies) passes by about 95 % of American homes,[51] it is not wired into a switched network, a therefore needs significant retooling if it is to carry Interactive Television signals. Telephone companies are in a better position to deliver switched communications, but are confounded by their copper wire bottleneck. They will surely replace much of the copper in the network with high-capacity fiber optic cable, but they will do it over time, at tremendous cost, just as video and computer-generated presentations demand ever-greater rates of data transfer.

Much rests on the availability of compression technology. The current state of the art is known as fractal compression, patented and practiced by a company called Iterated Systems. The technology "takes real-world images, analyses them, and breaks them down into groups of

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[47] Gary Stix, "Domesticating Cyberspace," *Scientific American* (August 1993), p. 103.
[48] George Gilder, "Into the Telecosm," *Harvard Business Review* (March 1991), p. 154.
[49] 315 MB = 315,000,000 bytes x 8 bits/byte = 2,520,000,000 bits / 9,600 bps = 365,217 seconds/3,600 = 101.45 hours = 4.23 days.
[50] George Gilder, "Into the Telecosm," *Harvard Business Review* (March 1991), p. 154.
[51] Gary Stix, "Domesticating Cyberspace," *Scientific American* (August 1993), p. 104.

fractals, which can be stored as a series of fractal instructions. These instructions take up much less space than the bit-mapped images used in JPEG [compression] technology [the standard to date]."[52] Iterated Systems already delivers compression ratios up to 200:1, and has claimed that fractal compression could be used to get up to 20,000:1,[53] about what it would need to do to send video down a standard copper phone line at 9,600 baud.

The main problem with fractal compression is its enormous front-end processing requirements (it can take up to 900 hours to compress an hour of video using a microcomputer)[54]. As the cost of processing power continues to dive, however, this will become less important an issue.

All this explains why it is so difficult to project connect time costs for marketers hoping to use Interactive Television. A one-minute phone call from Los Angeles to New York, at AT&T regular rates, costs $0.25.[55] Local calls are cheaper, though how much cheaper depends on their duration and service area. Online computer download charges, as described above, depend on data transfer rates, but average around $ 0.20 per minute. Together, these figures suggest an online connect charge in Interactive Television of about $ 0.20 per minute, and perhaps somewhat less.

This figure might be much lower, depending on whether the National Science Foundation follows through on its plan to have "traffic traveling on its 'backbone' network — today the main conduit for the Internet — carried by commercial suppliers."[56] On one hand, free access to the NSF backbone has kept the Internet an affordable option for millions of casual users. If it continues in the same vein, other network providers may have to slash prices to compete. On the other hand, though increased "commercial supplier" presence might lead to increased competition and therefore to lower prices, it might also lead to consolidation among the largest of the network providers. In an auction situation, for example, the final network model would be determined by time and antitrust laws.

The Economist pointed out recently that "as real competition takes hold for the first time in America's local-telephone market, profit margins will be squeezed -- on some estimates by as

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[52] Frederic Davis, "My Main Squeeze: Fractal Compression," *Wired* (November 1993), p. 54.
[53] Frederic Davis, "My Main Squeeze: Fractal Compression," *Wired* (November 1993), p. 54.
[54] Frederic Davis, "My Main Squeeze: Fractal Compression," *Wired* (November 1993), p. 55.
[55] This costs more than a call from Los Angeles to San Francisco, but conservatism is a good idea when faced with the uncertainties of this market. Rates are as of November 30, 1993.
[56] Gary Stix, "Domesticating Cyberspace," *Scientific American* (August 1993), p. 105.

much as two-thirds."[57] A deregulated, newly competitive market for network connections (including voice and video telephony) may also result in charges lower than the $0.20 quited above, as networks struggle to add volume.

If online connect charges are to be in the neighborhood of $ 0.20 per minute, where a minute would enable the transfer of about 75MB of data,[58] and a 30-minute video could be downloaded in about 2 minutes, for a cost to the marketer of about $0.50. This is within range of current Direct Mail postage rates of about $0.20 per name-mailing, though it must be said that given the different kinds of information being sent out, only comparisons by orders of magnitude take into account the enormous margins for error. Assume, then, that for the purposes of this discussion, the costs of Outbound Media for DRIT and DM are the same.

5-3 Inbound DRIT Network Access Charges

DRIT consumer response will occur over the same network, and will cost marketers the same amount as outbound access charges, assuming that the cost of the messages will be borne by marketers in the same way that the cost of 1-800 numbers are borne today.

DRIT rates, following the discussion of Outbound rates, would appear to be within range of the $0.20 cost of Business Reply Mail, and of the $ 0.14 per minute cost of inbound telemarketing, assuming about 3 minutes per call.[59]

5-4. Automated Response Tracking

Given the chance to eliminate part or all of the labor costs involved with data entry, most companies would leap at it. Labor costs currently make up about 2/3 of the total cost of answering and tracking inbound telemarketing.[60] Their impact on the cost of tracking response by mail may be even higher. Interactive Television would give companies the chance to automate the majority of response fulfillment and tracking, by allowing consumer-provided information to be transmitted directly to the marketing database, in digital form.

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[57] "Multimedia's Yellow Brick Road," *The Economist* (December 4, 1993), p. 67.
[58] Assuming compression of 500:1 and 20,000 baud data transfer, both of which appear to be within range of developing technology. Hayes recently announced technolgy that represents a leap forward in bps, though a shipped product is not yet available.
[59] Source: Bob Stone and John Wyman, *Successful Telemarketing*, (National Textbook, 1992).
[60] Source: Bob Stone and John Wyman, *Successful Telemarketing*, (National Textbook, 1992).

Clearly, such a development represents significant investment of computer communications technology, but it is not so far beyond existing telemarketing automation technology, that records every piece of data not provided directly by voice, including (in some cases) the source telephone number.

Given the high cost of labor and the continued slide in computer power and applications costs, DRIT seems certain to return cost savings over traditional response tracking systems relying on manual data entry, though the kind and degree are difficult to quantify. Again, the safest assumption here seems to be that, in the introductory stages of DRIT at least, the fixed cost of investment capital will balance out the savings in variable cost of labor, leaving the costs of response tracking in the two media about equal.

6. The Case for Direct Response Interactive Television, Summarized

Interactive Television will not take over the marketing world within the next 15 years. It will not even take over the direct response marketing world. Too much time, expertise, and capital are tied up in Direct Mail, Telemarketing, and DRTV operations to allow a quick changeover, even if it were clear that one were warranted (which it is not). Peter Drucker "contends that no new system can displace an established system until it outperforms it by a factor of 10."[61] While Interactive Television may well outperform established marketing media by 10 times in certain circumstances, it will not outperform them on a broad basis for many years, if ever.

Given that the costs of Media usage and response tracking appear to be about equal in both media, over the short term (15 years at the outside), the most important determinants of advantage are the costs of Creative development, and of Production for distribution. The question is, Does the economic advantage of shifting from variable costs to fixed costs outweigh the added upfront investment made necessary by the shift?

The answer: It depends on volume, all other things equal. If all other things are not equal, there may be areas in which DRIT shows a clear advantage. Examples might include advertisements for entertainment, or for high-margin items that would benefit from the dynamic quality of multimedia advertising.

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[61] Paraphrased in George Gilder, *Life After Television* (New York: W.W. Norton Co., 1992), p. 71.

On the whole, however, the great arbiter of media for any given program is likely to be volume, at least until the prices of multimedia production fall somewhat, which they are bound to do eventually. For now, a (very) rough estimate suggests that, all other things being equal, if DRIT Creative costs are about $ 200,000, DM Creative costs are $20,000, and DM variable Production costs are about $0.30 per name, DRIT would only become a cost-effective alternative at volumes above about 600,000 names.[62]

It will be some time before marketers using Direct Response Interactive Television can begin realistically to target so many homes, depending on the market penetration rate of Interactive Television. If, however, 50% of households are in fact on-line within 15 years, that time may seem to pass in the blink of an eye.

In all this lies a seemingly great contradiction, in that how can targeted, personalized marketing rely on volume in any way? Through versioning. The information needed to drive that versioning forward is the topic of the following section.

[62] $180,000 / $0.30 = 600,000.

V. Information Legislation

1. Introduction

Database marketers see Direct Response Interactive Television as an opportunity to contact customers with increased precision and creative freedom. At the same time, they recognize that just as they harness the power of the new media, consumers may gain the ability to shut them out. To marketers, happy to be loved or hated so long as they are noticed, this sounds like a fate worse than recession.

Two forces will combine to shift power to consumers in a Direct Response Interactive Television environment: Legislation and Technology. Legislation may provide consumers with limited control over the way that information collected about them is used, and will allow them access to all the information that is collected about them. Technology will provide consumers with the means to control what they watch and when, allowing them to decline direct response advertising that does not appeal to them. Overseeing these two forces will be the economics of the marketplace for information.

2. The Consumer's Relationship With Direct Response Advertising

Anecdotal evidence suggests that most consumers believe the world would be a better place without direct mail and telemarketing campaigns. Citing concerns about the environment, privacy, quality of life, and fraudulent business practices, consumers noisily demand the end of direct response advertising, even as they build it into a multi-billion dollar annual business. Direct Mail response rates that hover around 2 % imply that 98 % of communication is ignored upon arrival. But Direct Mail provides information, a fact that consumers recognize and appreciate.

A 1990 study, for example, found that households describe 41.1% of the direct mail they receive as "useful" and a further 23.8% as "interesting,"[63] for a total of almost 65 % who see some informational value in the Direct Mail they receive. This reinforces the frequently heard direct marketing claim that while consumers complain about receiving direct response advertising that does not appeal to them, they see direct response material that does appeal to them as part of their "regular" mail.

[63] Source: "USPS Household Diary Study, 1991" in *DMA Statistical Fact Book, 1992/3*, p. 48.

Similarly, a survey of consumers receiving telemarketing calls found that while 42 % of respondants described their last encounter with a telemarketer as "unpleasant," 44 % described their most recent encounter as "pleasant."[64] And while 70 % of consumers who have ever received a telemarketing call agreed that such calls represented an "invasion of privacy," 57 % also saw it as an "opportunity to provide feedback to the company," and 41 % saw it as serving a "useful purpose." Ominously, only 18 % saw telemarketing as "a good way to buy things."[65]

These statistics should not convince anyone that consumers want more direct marketing. Rather, they give the impression that consumers are not as a group as intolerant of advertising communications as a vocal portion of them would have the advertising community believe. Consumers may "surf" away from television programs that break for commercial messages, and flip by glossy advertisements in magazines, but the figures above indicate, however broadly, that they also appreciate the abundance of product information at their collective fingertips.

Information made available and information made unavoidable are very different things, however, and consumers react differently to them.

3. Three Kinds Of Marketing Communications

Consumer attitudes towards marketing materials fall into three broad categories, as follows:

3-1. You Asked For It

The first category includes marketing material that consumers seek out, such as that sent in response to an unsolicited consumer request (e.g., by word of mouth) or point of purchase display advertising that catches the eye of shoppers, who are by their actions declaring themselves to be open for advertising. One might call this "You Asked For It" material.

3-2. Welcome

This category includes direct response material that is welcome, either because it comes from a source that the consumer recognizes and approves of, or because it represents a pleasant surprise

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[64] Source: "Walker Research, 1991" in *DMA Statistical Fact Book, 1992/3*, p. 132.
[65] Source: "Walker Research, 1991" in *DMA Statistical Fact Book, 1992/3*, p.133.

for the consumer, information that he or she is happy to have received. Such "Welcome" material, the goal of all database marketers, is largely responsible for the rise of direct response marketing.

3-3. Not Welcome

This category includes any direct response material that is of no interest to the recipient, or that represents an irritation, an invasion of privacy, or a source of anxiety. This "Not Welcome" material is responsible for sharp criticism of direct response marketing practices. At the same time, Not Welcome communication wastes a marketer's money, and can permanently destroy a marketer's chances to approach an individual through a more appropriate marketing channel.

4. TELEGRAPHICS

Direct Response Interactive Television could provide marketers with more accurate, more detailed information. Primary information could be captured with automated tracking systems, and collected more often, as marketers gain understanding about the best times at which to request response. "Not only will information flow out of the telecomputer to consumers ... , but information will travel at light speed from consumer to marketer."[66]

At AT&T's covert trials in the spring of 1993, for example, "computers tracked program use, reacting to each click on a customer's remote control. Each purchase, each preference, [was] carefully recorded."[67] Tabulated into understandable form, this information could be a treasure trove for marketers with the modeling expertise to take advantage of it.

Telegraphics could become a new sources of external data, replacing market research survey extrapolations and Neilson ratings. Providers of entertainment programming, for example, could sell the response information that they gather. Rather than targeting markets on the fact that 20 % of the televisions in a given town were tuned in to *Laverne & Shirley* at a certain time, marketers would know who watched *Laverne & Shirley*, which episode they watched, and when they cose to watch it. Over time, they would also come to know how often individuals watched particular episodes, and would infer behaviour characteristics accordingly.

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[66] Harry King, "Telegraphics" in *Direct* (March 1993), p. 49.
[67] John Keller, "AT&T's Secret Multimedia Trials," *The Wall Street Journal* (July 1993), p.11.

In tandem with information provided by geo-demographics and individual purchase histories, this "telegraphic"[68] enhancement data would allow database marketers to build more rounded info-graphic profiles of their house files. Better profiles would lead to better modeling, which in turn would lead to better targeted, more efficient, database marketing programs. Sales of telegraphics could provide a consistent flow of revenues to help pay down the estimated $200 billion to $500 billion it will cost over the next ten years to build the high-capacity network necessary for multimedia communications.[69]

5. Consumer Concerns

Consumers are uneasy about developments like these. A 1991 survey asked consumers how they felt about having the option to "check a box [on direct response vehicles] to say they do not want their names passed on to other companies." A scant 11% of consumers felt that such an option was "not important," compared to 56 % who felt that it was "very important."[70] These results suggest that consumers understand how companies get their names -- they trace Not Welcome communications to the inter-company transfer of information.

While consumers enjoy the surprise of novel advertising, they are uneasy about the Orwellian overtones of the market for consumer information that underlies the database marketing industry. When questioned closely on the subject of information protection, 22 % of consumers say that they would like to have their names removed from all commercially available contact lists. A clear majority of 64 %, however, suggest that they "would like to have their names removed from some but not all lists." The majority in favor of this kind of "selective opt-out" rises to 71 % in the 18-29 year-old age group, the consumers of the future.[71]

Consumers understand the consequences of information transfer, but want more control over how and to whom it is released. They want what amounts to copyright protection on the records of their corporate interactions. This feeling has begun to be reflected in legislation at both the state and federal levels.

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[68] Harry King, "Telegraphics" in *Direct* (March 1993), p. 48.
[69] George Gilder, "Into The Telecosm" in *Harvard Business Review* (March/April 1991), p. 156; and *The Economist* (December 4, 1993).
[70] Source: "Harris-Equifax Consumer Privacy Survey, 1991" in *DMA Statistical Fact Book, 1992/3*, p. 47.
[71] Source: "Harris-Equifax Consumer Privacy Survey, 1991" in *DMA Statistical Fact Book, 1992/3*, p. 48.

6. INFORMATION PROTECTION LEGISLATION

R.H. Polk, an information services company, compiles individual information from Driver and Motor Vehicle Registration files in 35 states. Polk used to provide data from more states, but the 1993 session of Congress, the following states had tabled bills "that specifically prohibit the use of DMV or other public records for commercial solicitation:" Arizona, Colorado, Georgia, Kansas, Maryland, New Hampshire, Oregon, and South Carolina.[73]

In1974, Claritas L.P. founded PRIZM, a service that, since 1980, has relied upon the U.S. Census and other publicly and privately available data to assign individuals to geo-demographic "clusters" that broadly reflect consumer attitudes and behavior patterns.[74] Claritas and companies like it base their businesses, and the market for consumer information that they have created, on the availability of consumer information. That availability is continually in question.

In 1991, for example, "the Supreme Court ... ruled that alphabetical listings of names and addresses in white pages phone directories are not protected by copyright law."[75] Though database marketers (telemarketers in particular) were delighted with the decision, they remain concerned by the questions that surround their access to information sources they have heretofore taken for granted.

Legislative initiatives extend well beyond public sources of information. Credit bureaus like "TRW, Equifax and Trans Union sustain their growth by acquiring other credit agencies and by selling new products created by repackaging consumer credit data."[76] H.R. 1015, the Fair Credit Reporting Act, introduced to the 1993 Congress and currently on its way out of sub-committee review, seeks to impose new regulations on credit bureau information transfer (in addition to the various federal and state laws that already exist). "H.R. 1015 would prohibit credit bureaus from selling credit information for target marketing practices,"[77] and would substantially increase the rights of consumers to access and ensure the accuracy of their own credit information.

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[72] David Shepard Associates, *The New Direct Marketing* (New York: Dow Jones & Company, 1990), p. 33.
[73] Direct Marketing Association, *DMA 1993 Government Affairs Conference Issue Briefing Guide* (New York: Direct Marketing Association, 1993) p. 14.
[74] PRIZM brochure; *Why PRIZM is the Recognized Leader in Cluster Segmentatoin Systems.*
[75] "List Industry, Marketers Heartened by Supreme Court's Unanimous Decision," *Friday Report* (March 29, 1991), p. 2.
[76] Jeffrey Rothfeder, "Is nothing private?" *Business Week*, Sept 4, 1989), p. 74.
[77]Direct Marketing Association, *DMA 1993 Government Affairs Conference Issue Briefing Guide* (New York: Direct Marketing Association, 1993) p. 14.

Legislation like the federal Electronic Communications Privacy Act further complicates the legal picture, as it "prohibits many electronic variations on wiretapping by both government and private parties,"[78] forcing information gatherers hoping to monitor consumer use of Interactive Television to confront a further hurdle. Other state and federal statutes mandate similar restrictions.

Lobby groups like the Direct Marketing Association, sensing a threatening shift in legislative mood, are working to avoid blanket bans on the use of external consumer information by suggesting legislation that requires information-gathering agencies "to notify consumers that information about them may be disclosed to third parties and to give them the opportunity to opt out of such disclosures."[79] They argue that this attitude is consistent with consumers' desire to choose which companies may release "their" information.

It seems that legislative bodies may soon recognize, if only implicitly, that consumers hold the copyrights on information about their own activities. Consumer information provided to outside parties for the use of those parties would then remain the exclusive property of consumers. Consumers would retain the right selectively to refuse to allow outside parties to sell or otherwise transfer information. It remains to be seen how often consumers would exercise that right.

7. SELECTIVE OPT-OUT PROGRAMS

Legislators can give consumers control over information release in two ways:

> **i.** Positive Option Programs. Marketers and information gathering services would not release individual information unless they had permission from customers to do so. The option to allow release would be presented to customers as a routine element of response transactions.
>
> **ii.** Negative Option Programs. Marketers and information gathering services would not suppress individual information unless they received requests to do so. The option would be presented on direct response communications and order forms.

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[78] Lance Rose, *Cyberspace and the Legal Matrix: Laws or Confusion?* (Electronic Frontier Foundation, Compuserve Forum, 1991).
[79] Direct Marketing Association, *DMA 1993 Government Affairs Conference Issue Briefing Guide* (New York: Direct Marketing Association, 1993) p. 14.

Current programs sponsored by the Direct Marketing Association and by independent marketers work on the Negative Option model, clearly the system more favorable to marketers. No broad federal legislation has been passed on this issue, in part because states have developed laws that restrict information transfer in various industries. The federal government, by setting a baseline standard that over-ruled state laws, would inevitably ease some local restrictions while tightening others. The prickly political nature of this situation ensures that effective legislation on this issue will not be passed for some time to come,[80] giving the direct response industry a chance to self-regulate.

Problems with Positive Option Selective Opt-Outs

Positive Option selective opt-outs would burden the database marketing industry with a new set of liabilities and processing costs, and would not effectively block Not Welcome communications.

First, those companies that gather information for sale (e.g., R.H. Polk, Infobase), subject to lawsuits for information abuse, would have to verify that all their sources of information had been cleared by consumers, and that the sources' sources had been cleared, and so on, each on an individual-by-individual basis. This would present a daunting new cost in such markets as that for credit bureau information, where "the big three credit bureaus sell information broken down by hundreds of categories to smaller credit agencies called superbureaus [, who] sell information to almost anyone who will pay for it."[81]

The increase in the cost of external information would encourage companies to put greater emphasis on gathering internal information. The best way to get new names for an internal database, given positive option restrictions on information transfer (and consequently, enormous difficulty renting clean lists), is through untargeted direct and broadcast communications that seek to generate leads for follow-up. In other words, pre-empting the transfer of detailed information might cause a new wave of untargeted direct response communications -- precisely what consumers would most like to avoid, and what marketers would prefer not to pay for.

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[80] From a conversation with Elizabeth Holfstede at the Direct Marketing Association in Washington, DC, December 7, 1993.

[81] Jeffrey Rothfeder, *Is nothing private? Business Week* (Sept 4, 1989), p. 74.

Problems with Negative Option Selective Opt-Outs

The Direct Marketing Association currently provides two negative option services, the Mail Preference Service (MPS) and the Telephone Preference Service (TPS). Neither of the services is selective - consumers either stop all DMA-affiliated mail, or they don't -- though the DMA hopes to add some selectivity over the next few years.[82] As the preamble to a recent discussion of TPS in a DMA publication makes clear, these efforts at self-regulation have not been created out of concern for the well-being of consumers: "In the absence of the TPS alternative, consumer complaints to government officials could severely obstruct the industry's legitimate business efforts."[83]

Both services offer businesses a quarterly subscription of computer tapes containing updated names, addresses, and telephone numbers of consumers who have requested that their names be deleted from marketers' telemarketing and mailing lists. The services are free to consumers, but companies pay approximately $350 per year to the DMA, and cover their own processing costs.

In justifying the costs of the program to companies, the DMA says that "MPS and TPS are an effective means of purging lists of consumers who want to receive less mail and eliminate telephone solicitations at their homes," and that "use of the services can even save your company valuable marketing dollars by removing unresponsive consumers from marketing lists."[84] As a self-regulating service, the limitation of the MPS/TPS is that the penalties for continuing use of names requesting deletion is minimal. Given the per-name costs involved with running a merge/purge program in order to winnow out a comparatively small number of names, the per-name breakout of the $350/year fee (especially at small businesses) and, on the opposite side, the low incremental costs of contact by mail, companies may well decide that the program doesn't pay.

Consumer Use of Suppression and Opt-Out Services

Not many consumers use the MPS/TPS services. "Traditionally, only a small number of customers request in-house suppression," reports the DMA. "Many marketers and non-profit organizations

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[82] Conversation with DMA representatives in Washington DC, December 7, 1993.
[83] *The Telemarketer's Guide to State Laws*, (New York: Direct Marketing Association, 1991), p.15.
[84] Direct Marketing Asociation, *Privacy: The Key Issue of The 90's* (Washington: Direct Marketing Association, 1993), p. 7.

report less than a 2 % response rate."[85] This hardly squares with the 88 % of consumers, noted earlier, who say that they are interested in opt-out opportunities.

Consumers can also call or write directly to direct marketers, asking to be removed from mailing and telemarketing lists, or removed from lists made available for rental. Such in-house suppression is the closest thing to true negative option opt-outs presently available. Unfortunately, it requires the consumer to take matters into his or her own hands, spending time, effort, and money to write letters and make telephone calls to companies with which they never intended to be associated.

8. A Different Kind of Opt-Out -- Screens

All these efforts at information restriction seek to regulate institutional information transfer. Though such efforts clearly have some merit (much information now transferred was never intended by consumers to become publicly available), they cannot work alone. Positive option programs would strangle the direct marketing industry with costs and liabilities, and flood consumers with new untargeted communications. Negative option programs, including in-house suppression, do not provide marketers with appropriate incentives, and are unlikely ever to offer the kind of flexibility that consumers desire.

Legislators' efforts are thwarted by the conflicting interests of marketers and consumers, and by the thicket of state privacy and information protection legislation. Even if they were not, the last thing the database marketing community, marketers and consumers, needs is a layer of bureaucracy forming over its information sources.

The answer to this dilemma may be to shift the power of information flow regulation to the consumer. Rather than concentrating efforts on blocking the transfer of information that makes communication possible, allow consumers to screen communications, and to signal what is being screened and why. In other words, distribute negative option power away from the centralized model it works on now, out to the fringes of the marketing network, at the consumer interface. As marketers learn from well-designed screens, gathering not only information about consumers who respond, but also information about those who do not, they will target more precisely, saving them money and consumers aggravation.

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[85] Direct Marketing Association, *Privacy: The Key Issue of The 90's* (Washington: Direct Marketing Association, 1993), p. 13.

The postal service offers no such option, of course. The telephone companies offer nothing beyond primitive and expensive Caller ID systems. Interactive Television, however, offers the promise of software screens, controlled by a combination of human and artificial intelligence. The section that follows describes how such screens might be implemented.

VI. Screens in Direct Response Interactive Television

1. Introduction

Direct response marketers, regardless of the amount of consumer information they hold, make losses, never profits, when they reach consumers who do not want to be reached. This has always been true. Recipients of direct mail toss envelopes away without opening them, answerers of telemarketing calls bang down receivers, and welcomers of personal sales calls slam shut doors by the tens of thousands. Every time marketers devote resources to such futile efforts, they decrease the efficiency of their marketing operations, and contribute to growing consumer resentment.

There must be a better way to screen communications, one that allows consumers and database marketers to live to each other's mutual benefit. Direct Response Interactive Television may provide a starting point.

2. Current Consumer Screens of Marketing Information

Consumers who favor selective opt-outs want to block Not Welcome communications, while continuing to receive Welcome ones. They resent the current mechanism that forces their direct involvement in the process.[86] Unfortunately, it is not cost-effective for most consumers to hire out a human-powered mail-screening or phone call message-taking and screening service (i.e., a personal secretary). Many buy answering machines (90 million were sold between 1983 and 1992)[87], and the more energetic enroll in programs like the DMA's unselective MPS/TPS initiatives. Consumers are waiting on the cost-effectiveness of microelectronics.

That wait may be over soon. Telephone Caller ID service, for example, allows the recipient of an incoming call to screen the source number before deciding whether or not to pick up the phone. The service is crippled by three problems:

> **i.** Cost. When Nynex introduces the service in New York in early 1994, it will add $6.50 per month to a subscriber's telephone bill. The box on which subscribers view incoming

[86] It is also true that many consumers are offended by the waste and implicit environmental toll of broadcast direct mail campaigns.
[87] *Appliance* (April 1993), p. 54.

numbers, available from any consumer electronics store, costs anywhere from $25.00 to over $75.00, depending on its capacity to store numbers for playback.[88]

ii. Involvement. Marketers who call and are not answered lose nothing, and still succeed in irritating consumers with a ringing telephone.

iii. Reverse Use. Less scrupulous marketers use Caller ID to capture the numbers of callers for later use in telemarketing campaigns, without informing the callers.

Though Caller ID is hardly a perfect (or new) idea, it is nonetheless an important one, in that it transfers power from the caller to the telephone owner. It provides an owner with an interface that allows him or her to choose whether or not to accept a connection. More advanced versions allow owners to call numbers back at their convenience.

The development of computer communications technology has made remote message retrieval a business commonplace. The technology is slowly being made available to consumers as well, in the form of on-line computer services like Compuserve and America Online. Subscibers to these and other voice mail and electronic mail systems log on at their convenience, or in response to a prompt from a pager or on-screen notice.

Though these systems eliminate the immediacy of the telephone screening decision, they do not eliminate the necessity of owner involvement in the screening decision. They demand about the same level of user involvement as the mail (*see* Exhibit 10: The Structure of Today's Screens).

A better screen would include the ability to retrieve at the owner's convenience all Welcome messages (e.g., e-mail text and graphics, voice-mail), and would eliminate Not Welcome messages without direct user involvement.

3. How to Screen Marketing Messages in Interactive Television

The screening of Direct Response Interactive Television would be done by software agents, embedded with enough "intelligence" to distinguish between communications that a consumer wants to receive, and those that he or she does not want to receive. This is well within current Aritificial Intelligence capabilities. Such an agent would be quite different, and considerably less

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[88] From a call to Nynex Customer Information on December 3, 1993.

expensive, than the one described in the following passage: "The agent ... will watch a reader, note his or her preferences and then go out and dredge up news items from the terabytes of information in data banks, the makings of a personalized newspaper."[89]

Baseline screening would work on the simplest of algorithms, as follows (*see* Exhibit 11: Basic Screening in Interactive Television):

i. A message addressed to the owner arrives at the owner's network gateway.

ii. The agent compares the code identifying the message's source to codes describing sources from which communications are Welcome and Not Welcome.

iii. The agent refuses Not Welcome communications (keeping a log), then separates Welcome from Unknown communications, and stores them for user retrieval.

iv. The user retrieves Unknown and Welcome messages, and either discards them, stores them, or responds to them. The agent notes which messages are discarded and responded to, and asks the user whether they should be added to the Not Welcome and Welcome lists, respectively.

Though Not Welcome communications would be refused automatically, the source codes for those communications would have to be specified manually, at least initially. Specification of codes assumes a system of unique assigned identification codes to individuals (social security numbers?) and businesses (tax identification numbers?) alike.

Over time, agents might take on a more interpretive role, basing Not Welcome / Unknown decisions on simple analysis of the kind of companies that an owner has refused or welcomed in the past. Such a development would depend on marketer identification codes that included descriptive information (e.g., SIC code). Those codes would doubtless have to be legislated into existence.

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[89]Gary Stix, "Domesticating Cyberspace" in *Scientific American* (August 1, 1993), p. 107

4. Screens Benefit Marketers, Too

When a traveling salesperson is refused entrance to a suburban home, he or she knows in short order whether he or she should consider calling on that home again. A slamming door, for example, suggests that the address should be taken off the list of "maybe's" and entered onto the list of "no's." A pleasant "I'm sorry, not today," however, might be worth another try.

Direct marketers have no such way of tracking the reason for or degree of non-response. Screens in Interactive Television would allow them to track non-responses as accurately as responses, and to determine the appropriateness of further contact.

For instance, a marketer might query a consumer Interactive Television agent to find out if his or her company's communication is welcome. The answer would be Yes or No, with No clearly meaning "and don't come back." Yes would not guarantee success, of course. It would just guarantee consideration. Only a response would represent success. Suddenly, non-response takes on two dimensions: flat No, and Yes with no response. Flat No carries obvious meaning, but what about "Yes with no response?" Might that not be the equivalent of a salesperson's "Not today?" Such information could help a database marketer enormously in making statistically-based decisions.

There would be a cost associated with making queries, in the same way that there is a cost associated with querying today's central databases for demographic information. In Interactive Television, the cost would be for a portion of a second of network access time. Even given some minimum charge from network providers, it would likely be comparable to the present cost of appended information from data providers such as Polk and NDL, which ranges from $ 0.01 to about $ 0.045 per name.[90]

5. The Effect of Digital Screens on Advertising in Other Media

A digital screen would not appear to offer consumers much protection from direct mail and telemarketing. No screen short of a security guard could ever stop the local Chinese restaurant menus from sliding under the door, for instance. But that doesn't mean that the information generated by digital screens would not affect the flow of marketing communications in other media.

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[90] Source: Infobase Premier, *Data Element Catalog*, valid as of beginning of 1992.

This brings up once again the issue of selective opt-out programs. In Interactive Television, consumers might tell companies not to contact them again (No) in the same way that in Direct Mail, consumers ask companies not to contact them again (phone calls and letter-writing campaign). They might also ask companies with whom they establish relationships not to pass along information about them to other companies (negative opt-out). But it is unlikely that they would ask companies with whom they did not establish relationships to keep that fact to themselves.

Instead, "non-response history" would become part of a consumer's telegraphic profile, compiled in the same way that demographic information is now. Companies working to develop match-back models for statistical analysis could plot not only response history but also non-response history. The value of the latter (currently not compiled by any centralized agency) is obvious: if Company X sells sheets by mail, and discovers that Consumer Y has returned a No to every linen company that has ever come calling via Interactive Television, Company X will think twice about investing money in sending Consumer Y any communication at all.

6. WHO WOULD PAY?

It is conceivable that marketers would subsidize screens directly through a voluntary association, perhaps the Direct Marketing Association, in order to gain the information that screens would provide. Given the low cost of reproduction and contact in Interactive Television, however, marketers might hesitate to erect any barrier between themselves and consumers, no matter how valuable the indirect benefits of that barrier might be. The experience to date of the DMA's MPS/TPS programs underscores the impact of such hesitation.

Those consumers whose high income and standard of living draws direct marketers like light draws moths might pay for a screen and consider the money well spent. Depending on the cost of software, a majority of the 88 % of consumers who say they would like a selective opt out alternative might buy screens. A clever software company (or group of companies) could make itself popular allowing people to opt out of the inevitable avalanche of poorly rendered (to cut high fixed creative development costs) sweepstakes offers and once-in-a-lifetime offers.

This latter solution would put consumers in the ironic position of having to pay to protect themselves from the daily barrage of advertising. They would, of course, have the option of **not** paying, as would those consumers who could not in any case afford to pay for special software.

Those lower-income consumers, however, are likely to be late adopters of Interactive Television, and might not enter the fray until screens were a standard component of Interactive Television "sets," in the same way that pre-loaded Microsoft Windows is now a standard feature of personal computers.

For the purposes of this discussion and the one that follows, the most important consumers are those who buy Interactive Television early on, and to whom screens are an affordable amenity. They may be the consumers who shape direct response marketing in the next century. Their first move may be to grab from marketers not only informational power, in the form of screens, but economic power, in the form of a price of admission to the electronic mailbox.

VII. Speculation on the Future of Consumer Pricing Power

1. The Costs of Contact Revisited

When a Canadian herbicide manufacturer sent out its Spring 1993 customer survey, it included in the envelope a Canadian $1.00 coin. The company paid their customers not for response, but rather for opening the envelope. The coin was intended to make the survey Welcome communication, deserving of a response, rather than Not Welcome.[91]

The marketers intuited that a dollar (rather than, say, a quarter) would send an appropriate message, while generating a substantial increase in response. Folding the cost of the dollars into the marginal cost of contact for the program, the company accepted that some customers would take the dollars without returning the survey, and that some dollars, the postal system being less than perfectly efficient, would likely be lost altogether. Their research showed that the added marginal cost would be recouped many times over from the marginal revenue expected to be generated indirectly from the information gathered.

2. The Top 1%

Imagine for a moment what would happen if the top 1% of direct response shoppers (by dollar sales) were suddenly to demand that marketers enclose a dollar with their marketing communications. They might also make clear that all communication not including a dollar would go unconsidered.[92]

Many marketers would balk at the added cost, and purge the names of the top 1 % from their lists. But many would also conclude, as the Canadian herbicide company noted above did, that a dollar was a reasonable price to pay for the attention of their customers. Given the high expected profitability of the top 1 % of buyers, and the fact that profit-maximizing database marketers mail to all customers returning positive expected profit (i.e., Expected Marginal Revenues > Marginal Cost), only those marketers whose expected profit would be completely eroded by the additional cost would halt communications.

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[91] The survey received close to an 80% response.

[92] Assume the existence of an Association of Direct Shopping Stars that made their mailing list available to direct marketers.

Assume now that the buyers could waive the payment for those companies with whom they developed ongoing relationships. The dollar enclosed with a first communication would lower the expected profit from that communication, but could lead to a large cumulative profit as the relationship progressed. Marketers would be encouraged to set the dollar against the cumulative profit (the "lifetime value") of prospects and customers.

The top 1% would also receive less Not Welcome communication, as expected profitability fell with the rise in Marginal Cost. Companies would become less likely to mail to every level of probable response, in the same way that today's database marketers become less likely to take chances with every postal rate increase. Those companies that sent Not Welcome communication (presumably on the assumption that it would be Welcome) would pay the consumer a dollar for his or her consideration.

The top 1 % of consumers, then, would benefit directly from marketer payments, and indirectly from a fall in Not Welcome communications. They would still be left with the problem of disposing of untargeted mailings that did not contain dollars, however, unless the payment system described above were combined with a screen.

In a digital world, that would be easily accomplished. The transfer of payments would be performed on-line, not through the mail. Marketers, as they queried consumer mailboxes, might get more than the Yes or No answers decribed earlier. They might instead get three options: No, Yes (Free), and Yes ($ Price).

3. The Price of Admission to Interactive Mailboxes

The idea that marketers would pay to contact their most profitable target markets-of-one is at the same time possible and improbable, given the ongoing scarcity of reliable consumer information and the high cost of individualized communications. Leap ahead twenty years, however, to a time when customer information is on-line, and can be bought by individual record rather than by "list," and when Interactive Television is a viable marketing communications channel. Marketers could access the information they needed to score targets accurately, and could send personalized messages via Interactive Television to all consumers whose highest Expected Profit communications profile pointed to using DRIT.

The software screens that most affluent consumers would buy might eventually include a pricing module. Though consumers in the top 1 % might start out charging marketers $1.00 for every

contact, over time pricing would no doubt become competitive, with higher-value prospects charging more for admission than lower-value prospects. The lowest-value prospects (with exceptions, of course) would tend to be the same people who did not use software screens at all, and therefore would be unable to charge a price of admission.

Consumers would not set their prices haphazardly. Instead, they would set them at what the market for their attention would bear. Consumers who set prices too high would soon discover that very few marketers were interested in contacting them. The marginal cost of contact would eclipse the expected profitability from that contact. Consumers who set prices too low would be avalanched with information. Though at first they might reap profits from their high-volume, low-margin business, it would not be long before marketers realized that no responses were forthcoming, and purged the names from their lists.

In this way, the market would be self-adjusting. The price charged by various consumers would ebb and grow with the information available to marketers, in a way somewhat similar to the way that prices for stock in publicly traded companies change with available information. As the market for information would be imperfect, owing to consumers who exercised their right to opt out of providing selected information, a secondary market for consumer access privileges could conceivably develop ... .

Regardless of the eventual shape of the market, consumers would need virtually unlimited access to the information maintained about them, in order to ensure its accuracy, and thereby to prevent market distortions that would affect their price of attention. Preliminary movement towards just such access is demonstrated by provisions in the Fair Credit Reporting Reform Act, mentioned earlier. These provisions aim to "1) increase consumers' access to their credit reports; 2) improve consumers' ability to remove inaccurate or incomplete information from their reports; and 3) require credit bureaus to maintain a toll-free telephone number that consumers may call to obtain information about their reports."[93] There is no reason to believe that, given the appropriate technology, consumers could not transfer the rights of information access to screening agents if they so desired.

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[93] Direct Marketing Association, *DMA 1993 Government Affairs Conference Issue Briefing Guide* (New York: Direct Marketing Association, 1993) p. 14.

4. AN OUTLINE OF THE NEW DIRECT RESPONSE MARKETPLACE

The best way to describe the potential effects of these changes may be to trace the progress of a marketing message through the Direct Response Interactive Telelvision system, from inception to acceptance, assuming a screen and consumer pricing power (*see* Exhibit 12: Marketing Message Encountering a Screen):

4-1. The marketing database selects a candidate for marketing communication, and compiles information from internal and external sources. Current database and communications structures make data compilation a cumbersome process, as most merging and purging of data, and data appending, is done using tapes that are sent back and forth via package delivery service. The costs of doing this for an individual record would be prohibitive. Once external databases offer online accounts, however, data enhancement on an individual-by-individual level should become a workable reality.

4-2. As the first step in the information sourcing procedure, the database queries the target address, receiving three possible answers:

i. No. Ignore this address.
ii. Yes. Admission is Free to this marketer.
iii. Yes. The price of admission will be $ X.

The first answer stops the process, including any communications in other media. The second answer continues the process, with no extra price component factored in to marginal cost of contact calculations. The third answer feeds the price into the marginal cost of contact and, indirectly, expected profitability calculations.

4-3. The marketer uses customer, timing, and product information to confirm that the expected profitability of the target customer is highest when the customer receives a personalized message via Interactive Television (options returning lower expected profitability for a particular candidate might include direct mail and telemarketing). This step is no different from the decisions carried by database marketers today, with DRIT as an additional media channel choice.

4-4. The database marketer uses customer, timing, and product information to personalize the marketing message, by inserting personalized content into the most applicable templated format. This need not involve the creation of a multimedia event from scratch. Personalization could be as

general as featuring a particular product or as specific as maps populated with animated characters that show the way from a recipient's home to a showroom.

4-5. The database marketer sends the message (or, more likely, a pointer to the message address) to the target Interactive Television address. This assumes a high-bandwidth switched digital network.

4-6. The message is intercepted by the software screen. If it is coded with the appropriate instructions, the target mailbox access fee (the price of admission) is electronically recorded as a credit to the target's Interactive Television account, and as a debit to the marketer's account. The network adminstration would be responsible for the maintainence of information and invoicing of all parties as required. In much the same way, a current Nynex telephone invoice specifies charges for a half-dozen telephone service providers, including 900# providers.

4-7. The message is stored in the target's electronic mailbox. The Interactive Television interface signals the consumer that the mailbox is no longer empty.

4-8a. If the target accesses the message, he or she can respond instantly to it. Depending on the state of technology and the costs involved, response could open a detailed online dialogue, culminating in a purchase decision.

4-8b. If the target chooses not to access the message, he or she can delete it from the mail file, manually, in the same way that a consumer today throws away "junk" mail. The price of admission guarantees nothing more than this level of involvement.

4-9. When the user closes or discards a message, the screen software asks if the source code that transmitted the message should be treated the same or differently next time. The user's response triggers an automatic update of the screen database.

5. The Effects of Screening With Price

By imposing market discipline on the advertising communications process, consumers would force marketers to re-evaluate the way that they spend their marketing budgets. As the costs of contacting a consumer who would not return a response grew to be much higher than the costs of ascertaining that a consumer would not return a response, marketers would send less untargeted or poorly targeted communications.

At the same time, they would concentrate more on building relationships with customers, in the hope of achieveing Yes (Free) status in the mailboxes of regular customers. Although Marginal Costs of intial contact would rise, the decline in Expected Profit would be offset by a corresponding increase in targeting accuracy, and therefore in response rates that contribute to Expected Profits. Clearly, unless the gain in Expected Profit were greater than the increase in Marginal Cost, marketers would not send messages.

Without the benefit of price discrimination, through which they could effectively knock the profits out of advertisers' business, consumers would quickly discover that the market would be a reliable indicator of optimal price, as determined by their own preferences. By adjusting (or allowing thier agents to adjust) the prices of admission they charged, consumers could regulate the amount and kind of direct response advertising they received. No consumers would get rich soaking marketers (marketers' models are too smart for that), but they would be compensated in a way that would encourage efficiency and productivity in the advertising marketplace as a whole.

VIII. Conclusion

The primary obstacle to the development of Interactive Television as a database marketing medium is the established base of database marketers using Direct Mail. Both media allow marketers to leverage their database information to produce precisely targeted, personalized marketing communications, and neither medium can lay claim to a proven advantage in stimulating response.

Direct Response Interactive Television will likely supersede Direct Mail on high-volume targeted programs to consumers owning the necessary network access hardware, because its low variable cost structure assures lower Marginal Cost of Contact at high volume. Its high cost of Creative work, compared to that of Direct Mail communication, means that it may be less cost-effective at low volumes. Database marketers who deal in a range of product offerings would be wise to invest in both versioned Direct Mail and Direct Response Interactive Television capabilities.

Current legislation works to limit the flow of consumer information among third parties, rather than the flow of marketing information to consumers. Opt-out programs, both general and selective, are self-regulating, and are used by few consumers. If consumers want to control the amount and source of marketing material they receive, they would do better to rely on technology, in the form of software screens in Interactive Television, than on government intervention.

Screening in Interactive Television would aid both the consumer and the marketer, in large part because screens would allow marketers to collect more subtle non-response data than current media make possible. By understanding the difference among Yes, No, and Yes (no order), marketers will learn to trim their mailing, telemarketing, and Direct Response Interactive Television lists, and to become more efficient as a result.

If such data were made available to other marketers in a free market, as "telegraphics," screens in DRIT would affect direct communications in all media, saving marketers money, saving consumers time and irritation, and preserving the environment.

The best applications of Direct Response Interactive Television will be those who target with personalized messages, and that present products or services in ways that take advantage of the

experiential quality of the medium. Early examples might be promotion for video-on-demand services, with clips cut and targeted by individual taste, or promotion of travel destinations.

Interactive Television will start off as relatively expensive to consumers, available only to those selected to participate in test markets and those who can afford to purchase the hardware. Costs will fall eventually, allowing wide market penetration, but the medium will continue to underscore differences in income and class level.

If entertainment, news, and other forms of recreational information are promoted as narrowly as are other goods and services, "the population will be divided by income into information haves and have nots."[94] If it costs money to stake out a claim in electronic mailboxes, Interactive Television, unlike conventional cable network television, will serve the wealthy better than it serves the poor. Market economics dictate that the providers of both marketing and entertainment communications will seek the highest return on their investments. As the higher classes buy Interactive Television machines and access to the network, they will gain the ability to screen marketing messages that do not interest them, and to isolate their taste in entertainment from that of other classes. The lower classes will have no such opportunity.

Those who cannot afford, or who choose not to buy, Interactive Television service will instead be left with increasingly annoying and simple-minded network television programming, populated by marketers who know exactly the info-graphics of, and profit margins expected from, the crowd they are facing. The Interactive Television crowd will have better access to better products, better buying opportunities, and better entertainment, on a pay per view basis. As the final section of this paper points out, they may even have the opportunity to make money from the their consideration of marketing messages.

Charles M. Firestone, director of the Communications and Society Program for the Aspen Institute, comments that "These technologies could bridge the gap between rich and poor, and they could also, I'm afraid, widen that gap."[95]

With the end of product mass marketing comes the end of entertainment mass marketing. With that may come profits for database marketers who seize their opportunities, a new source of

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[94] Mitchell Kapor, "Where is the Digital Highway Really Heading?" *Wired* (July/August 1993), p. 54.
[95] Quoted by Gary Stix in "Domesticating Cyberspace," Scientific American (August 1993), p. 110.

income for communications network providers, unparalleled choice for those consumers with the income to access it, and precious little for anyone else.

Appendix 1 The Costs of Information

Regardless of media, all four of these informational costs may be incurred by all database marketers.

i. Costs of maintaining and analysing internal primary data. Software development and database maintenance are an integral, unavoidable part of every database marketing operation. As the information for any individual customer could be used in countless statistical modeling exercises, it would be meaningless to assign the costs of information maintenance to any one communications effort. Instead, internal data maintenance and analysis costs should be treated as overhead expenses.

ii. Costs of appending external data. Database marketers would prefer to have enough information in their house files to avoid external data altogether. But as times, products, and strategies change, database marketers frequently find themselves unable to make decisions based solely on the information at hand. They turn instead to outside sources, appending data to individual files as needed. Though capitalization might again be the best choice here, for the purposes of this discussion, externally appended data will be considered overhead.

iii. Costs of renting external lists. Rental lists are rented for use in specific communications programs. Once a database marketer has processed the lists through his or her internal models (using external information to score as necessary), and has determined which names to contact, he or she pays the list rental company one price for names to be contacted and another, lower, price for names not to be contacted. List prices range from $25.00/K for compiled data to over $100.00/K for pre-qualified names, and typically comprise about 15 % of the variable costs of a direct mail program.[96]

iv. Costs of scoring with non-appended external data. When communications programs demand that marketers score names using information that is not available across their customer files, they frequently turn to external sources to supply the information on a one-time basis. The marketer sends a list to the external source (e.g., National Demographics and Lifestyles, Cross/Z), where it is matched with data, both primary and secondary,

[96] Source: Arnold Fishman, Mail Order Marketing Management Library: The Guide to Mail Order Sales (New York: Marketing Logistics Inc., 1992), p. X-11.

processed through the model in question, and returned with a score (but no data) appended.

Prices are worked out between marketers and information providers on a contract basis, and vary with the amount of processing and programming necessary. Together, these costs can be as much as 4 % of the total variable cost of a direct mail program.[97] These costs should be distributed across the names to be contacted as part of the marginal costs of contact.

[97] Source: Arnold Fishman, Mail Order Marketing Management Library: The Guide to Mail Order Sales (New York: Marketing Logistics Inc., 1992), p. X-11.

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EXHIBITS

EXHIBIT 1 : A Simple Database Marketing Program

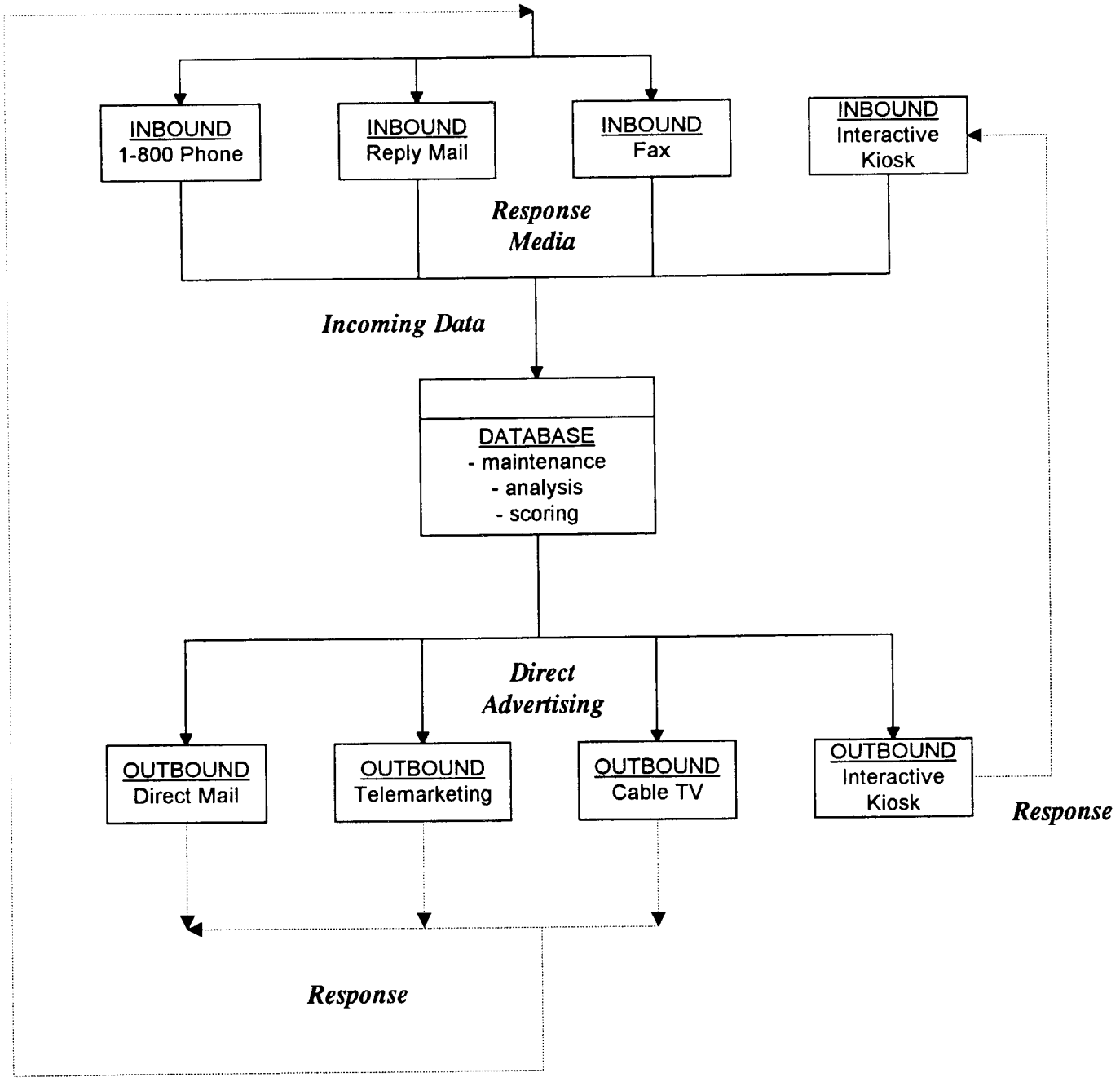
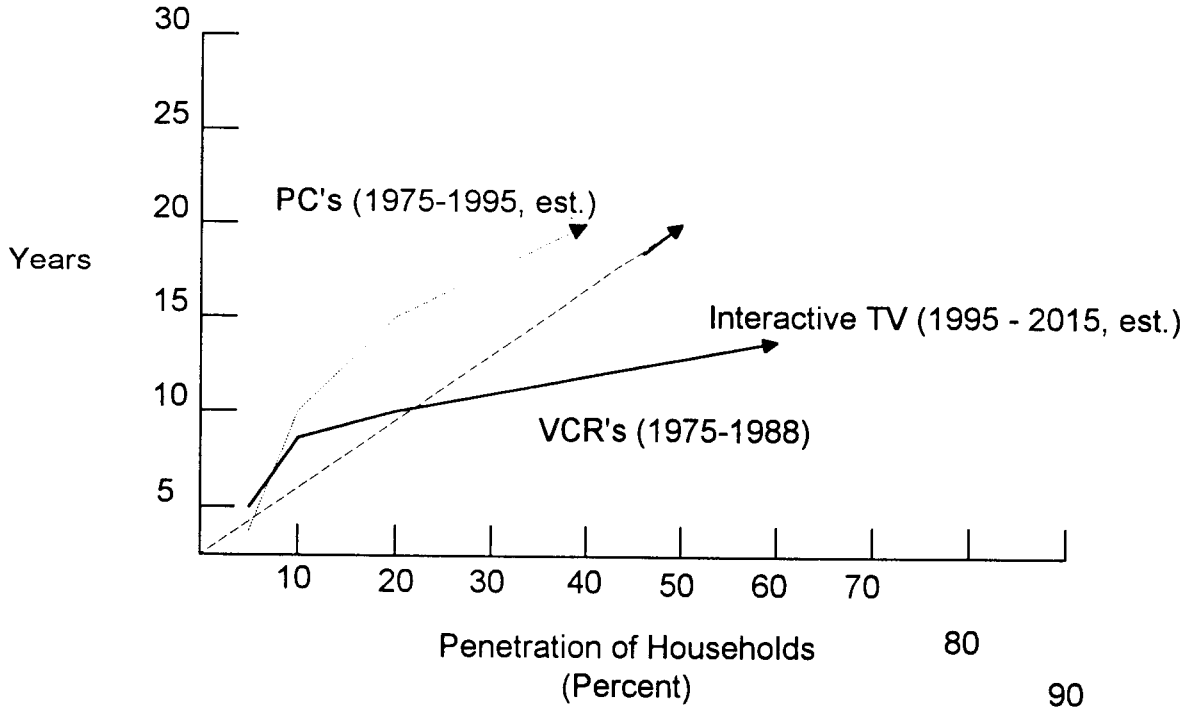
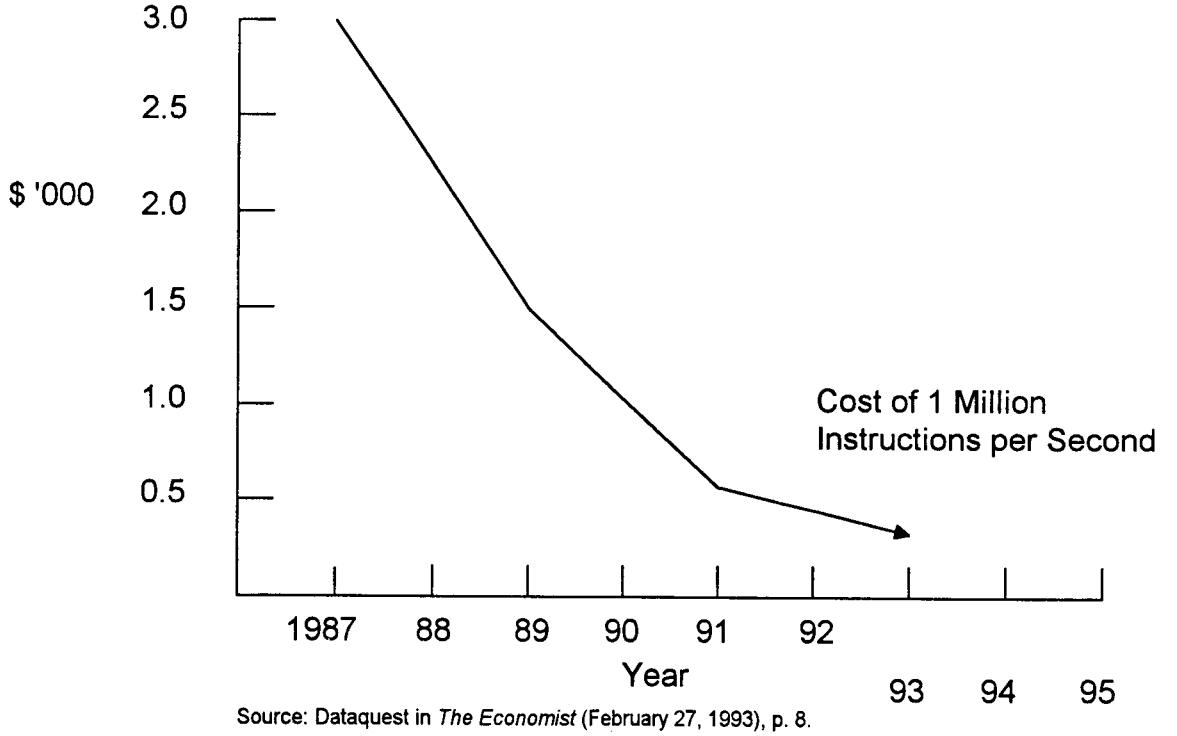


EXHIBIT 2 : Comparative Rates of Adoption



Source: Consumer Federation of America in *Scientific American* (August 1993), p. 106.

EXHIBIT 3 : Declining Computer Processing Costs



Source: Dataquest in *The Economist* (February 27, 1993), p. 8.

EXHIBIT 4 : Sources of Information

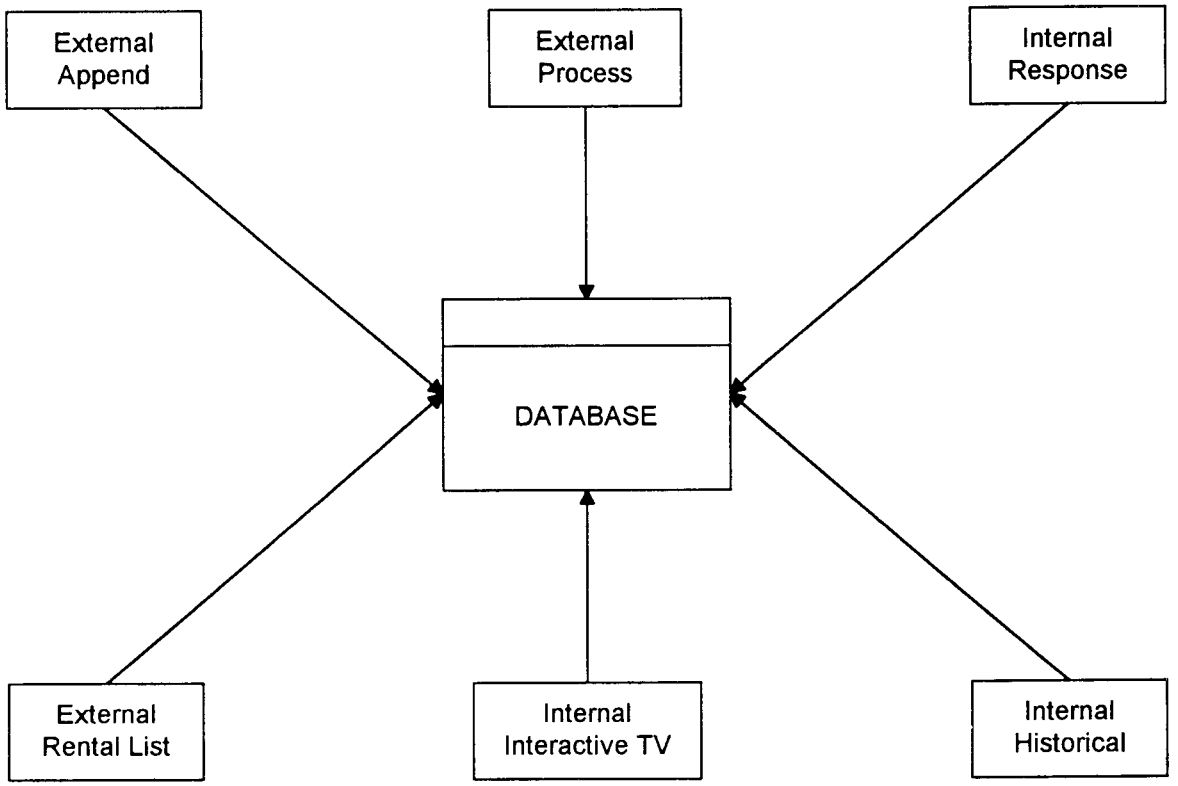


EXHIBIT 5 : The Versioning Process

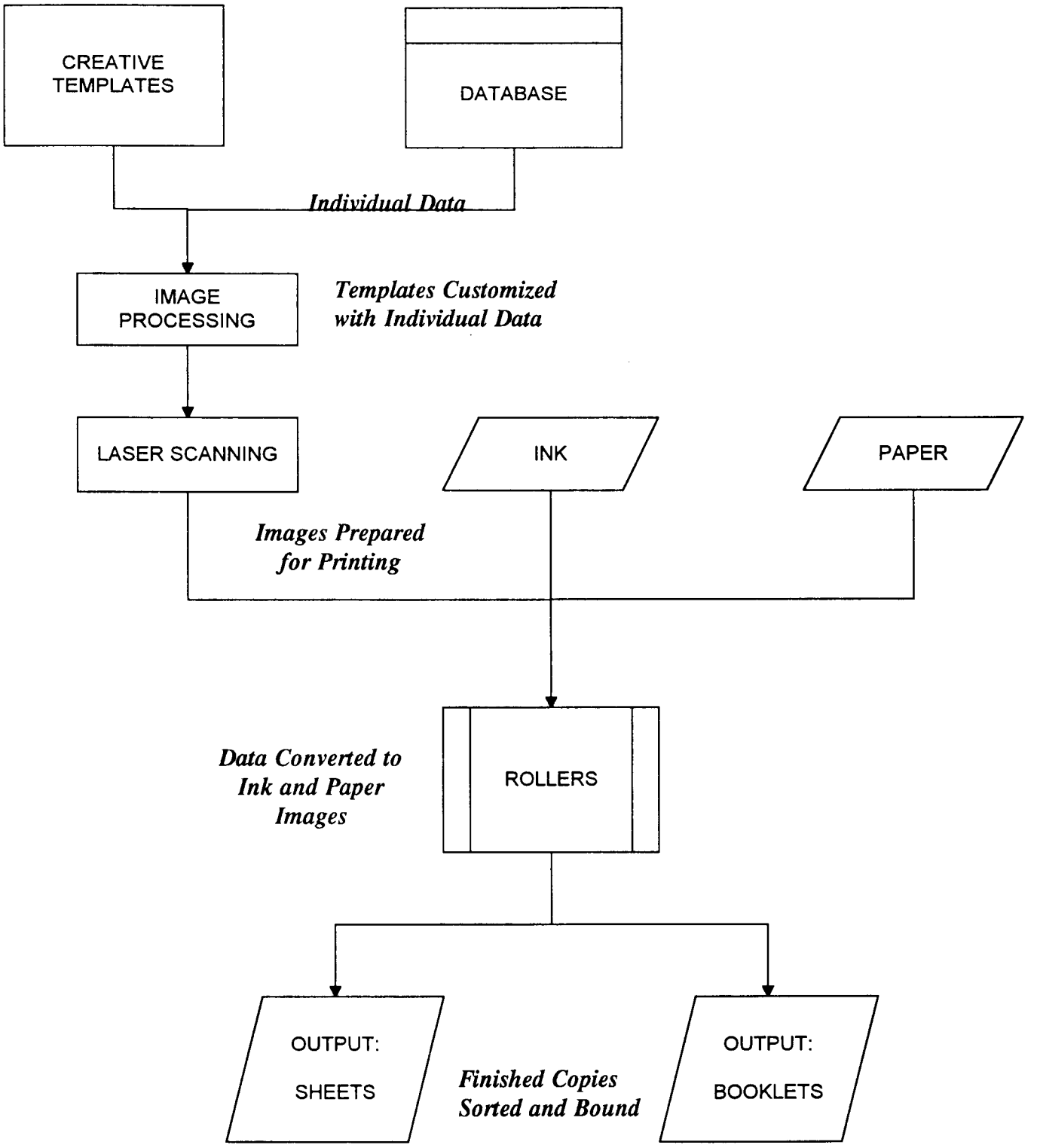


EXHIBIT 6 : Direct Response Television Structure

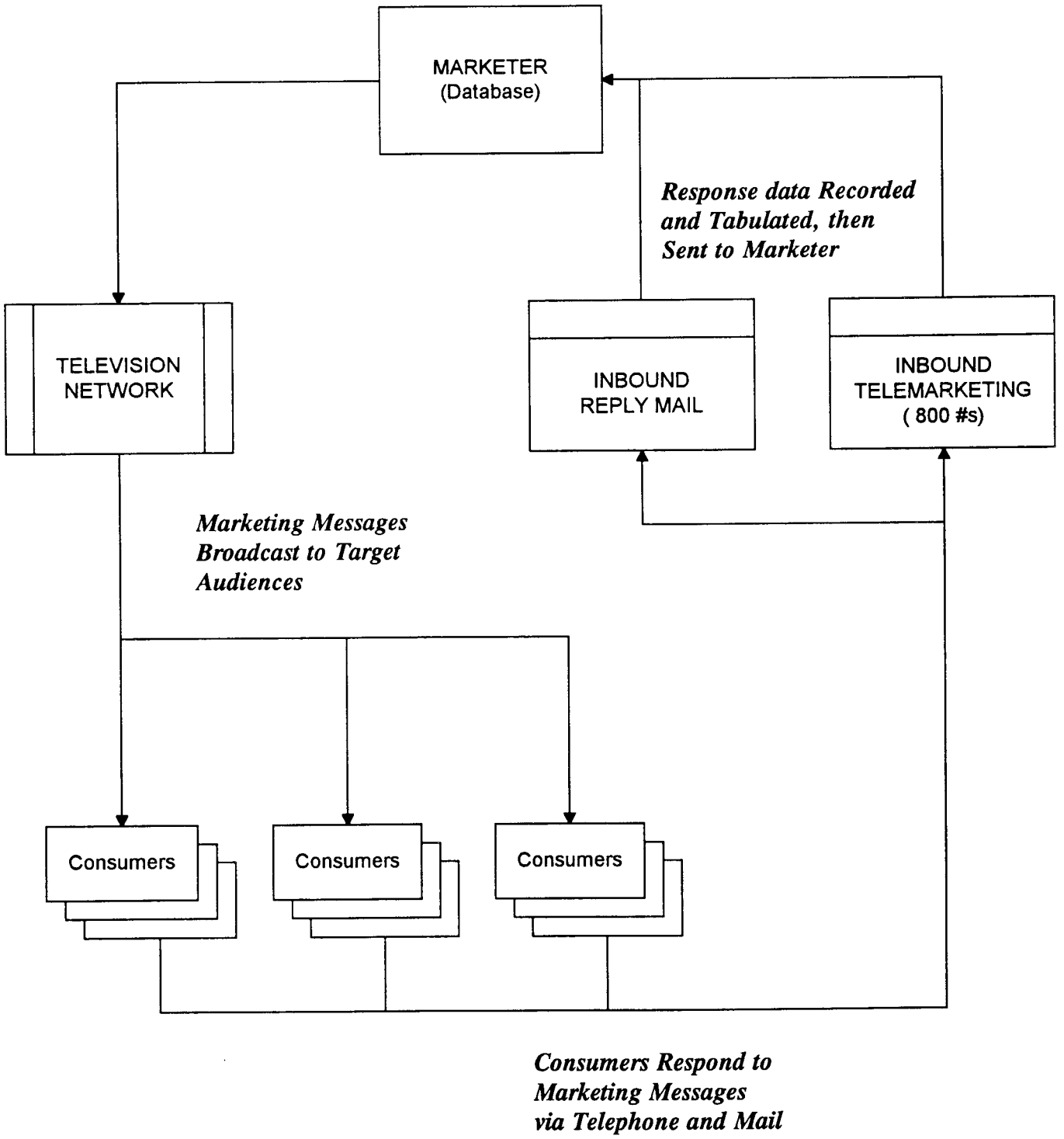


EXHIBIT 7 : Direct Response Interactive Television Structure

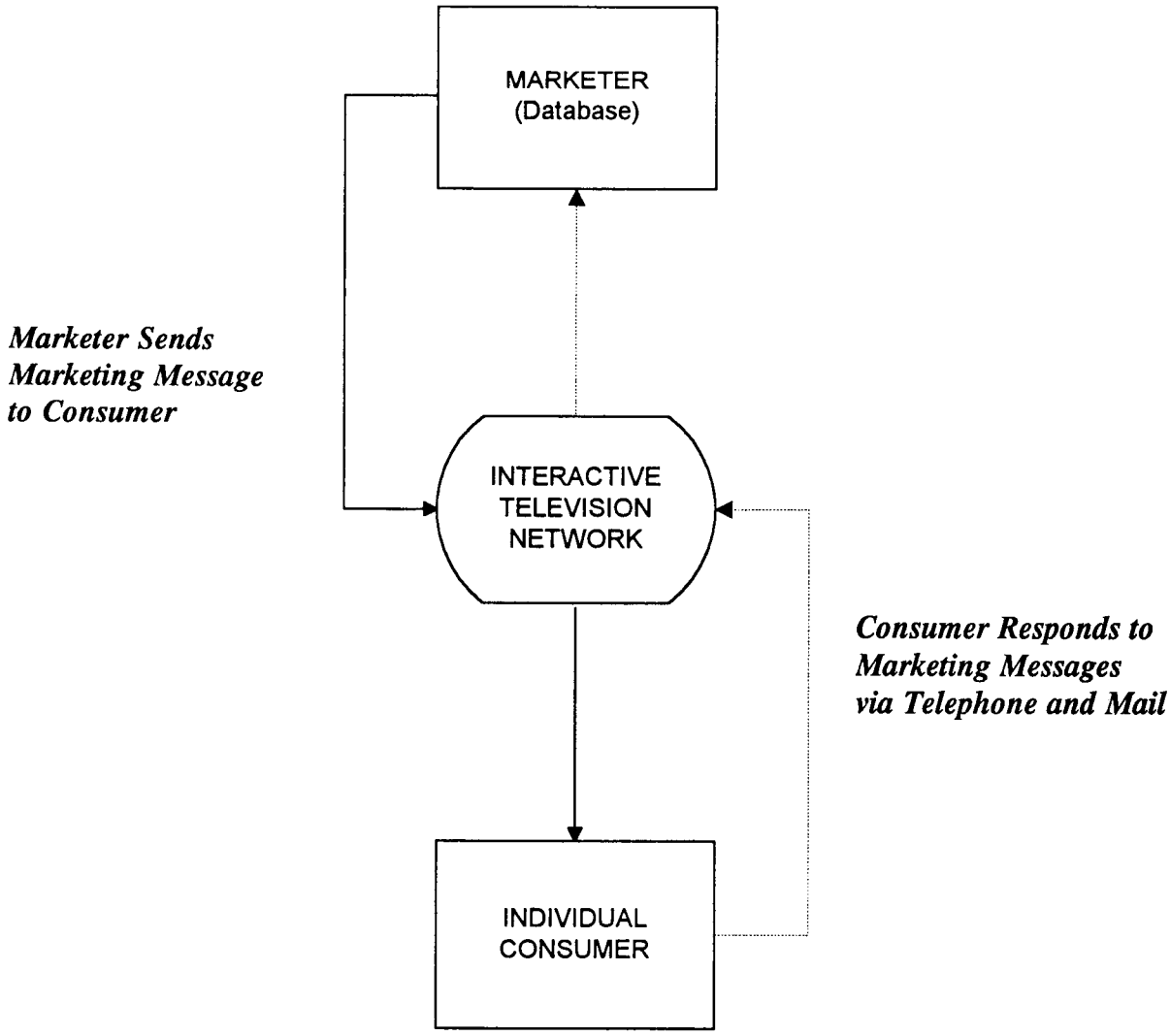
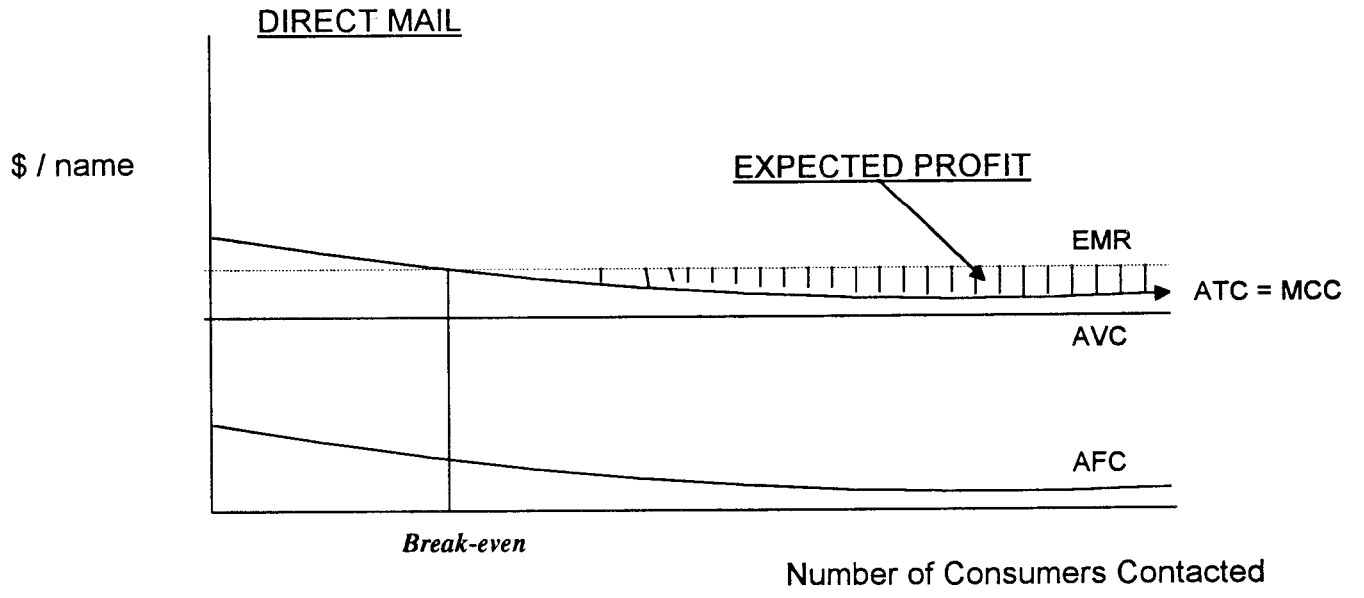


EXHIBIT 8 : Cost Structures Compared (fixed EMR)

Assuming constant Marginal Revenue and constant Probability of response, therefore assuming constant Expected Marginal Revenue (EMR).



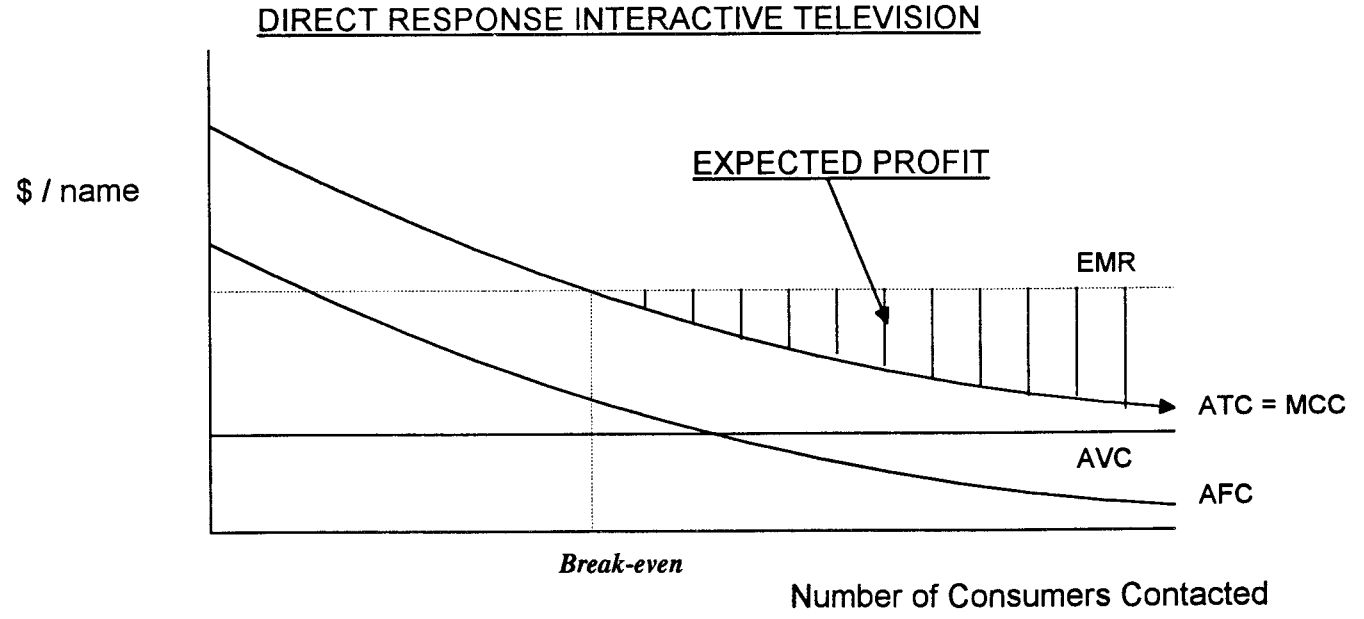


EXHIBIT 9 : Cost Structures Compared (variable EMR)

Assuming constant Marginal Revenue and diminishing Expectations, for declining Expected Marginal Revenues (EMR).

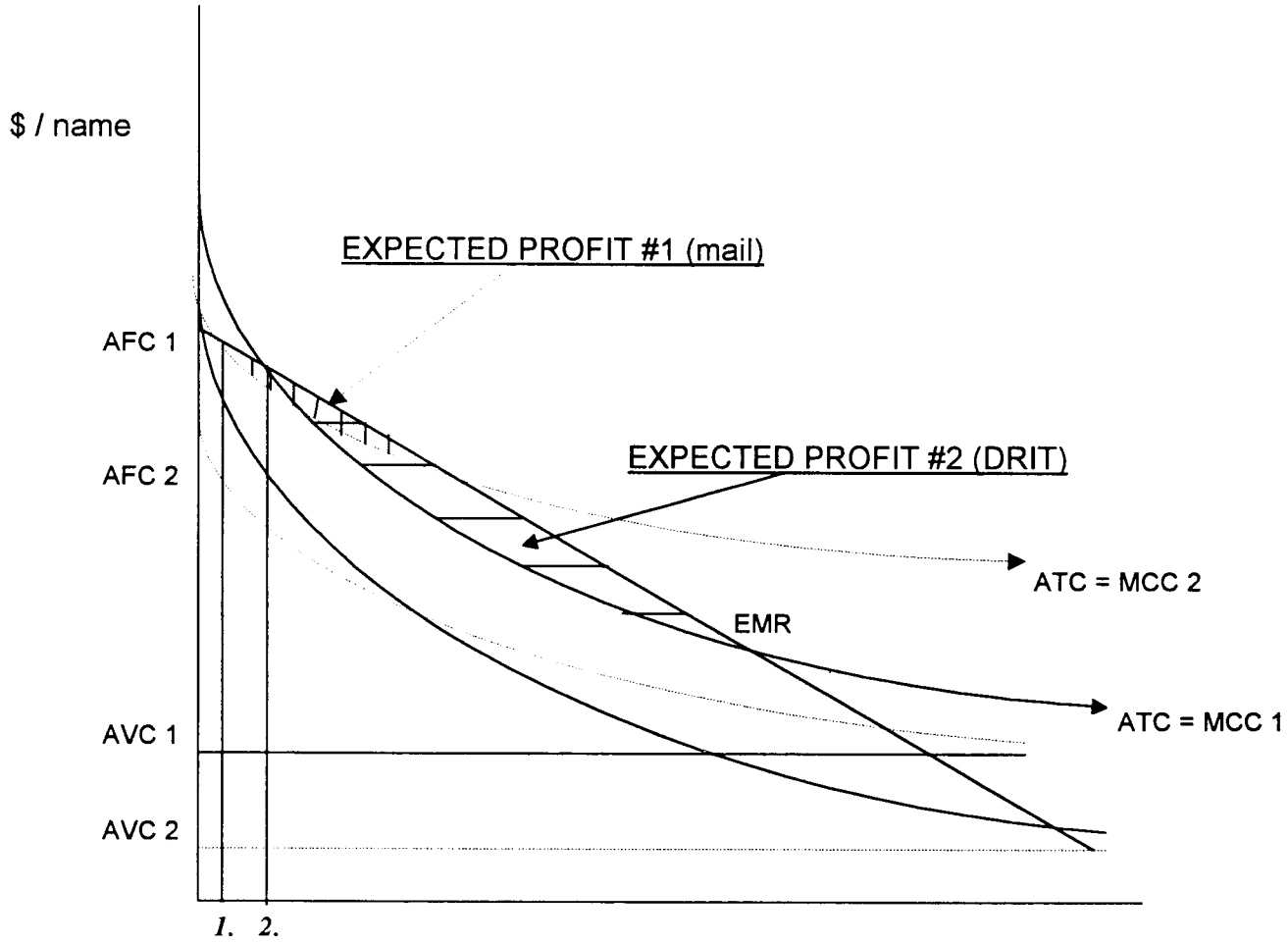


EXHIBIT 10 : The Structure of Today's Screens

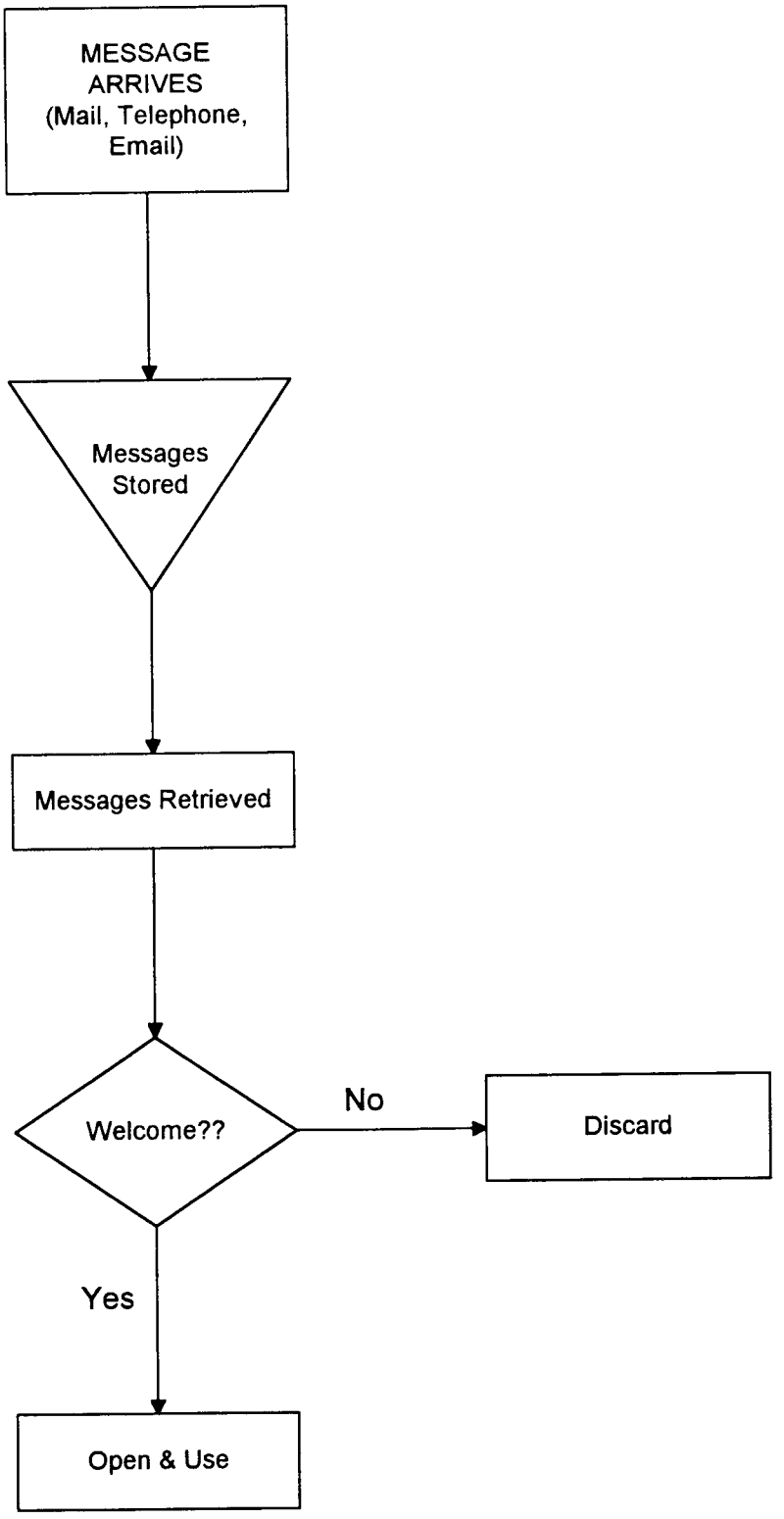


EXHIBIT 11 : Basic Screening in Interactive Television

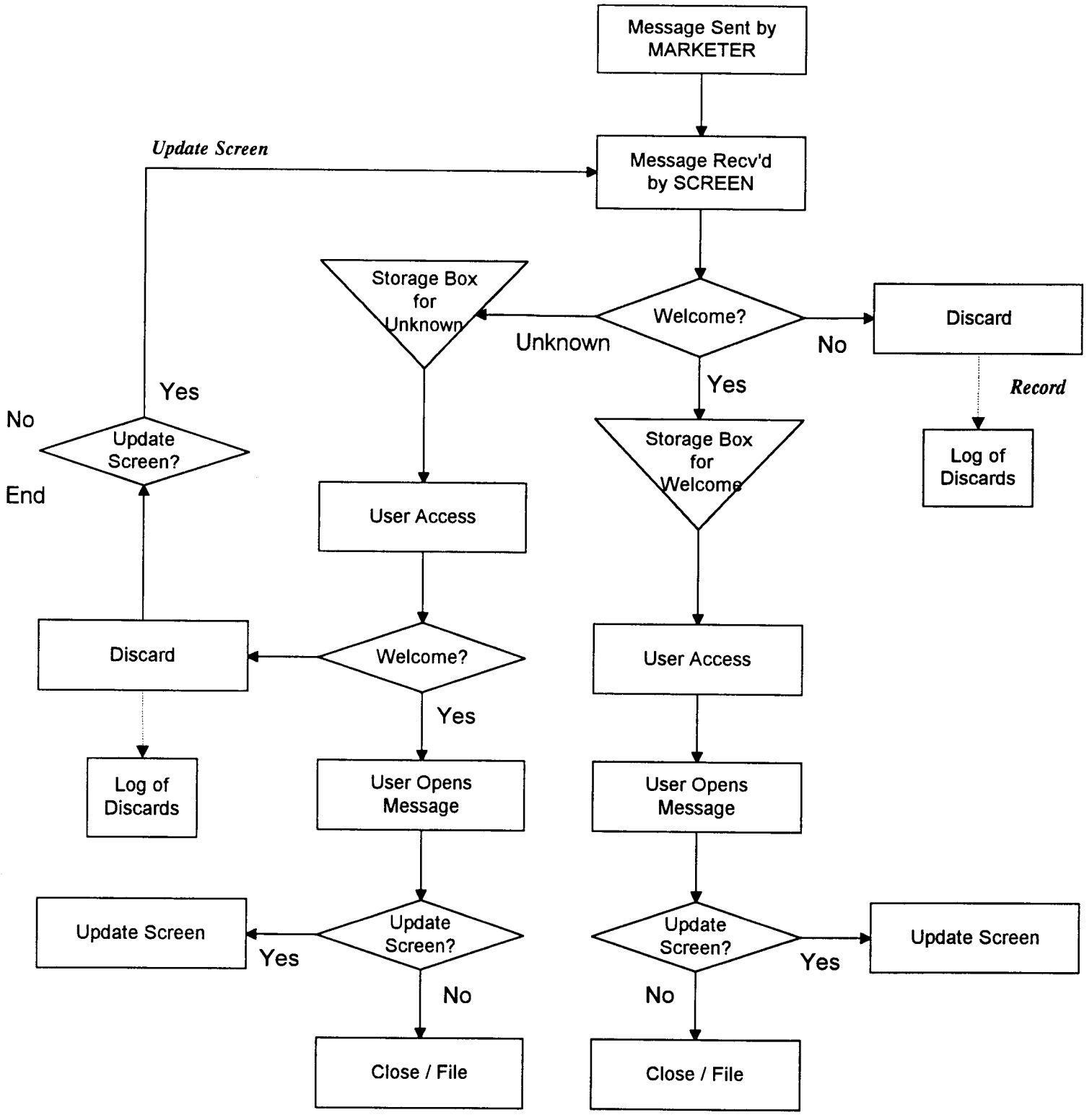


EXHIBIT 12 : Marketing Message Encountering a Screen