THE EVOLUTION OF EVANGELISM AT APPLE COMPUTER

by

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ABSTRACT

At Apple Computer in Cupertino, California, there is a department called Evangelism. This
department is charged with providing technical and strategic support for developers of
products which complement the Macintosh and Apple II lines of personal computers. In
addition, they are responsible for identifying those third-party companies whose products
are strategic to sales of Apple’s computers. This department is almost entirely dedicated to
influencing and lobbying. The overhead associated with it is not tied to a particular product
that Apple sells, and there is no direct revenue which Apple credits to this department.

This thesis explores how this department came into being, why it was necessary, how it
has changed in the seven years since the first appearance of the Macintosh, and what
challenges it faces going forward. In addition, it discusses a theoretical framework which
sets up both Apple’s corporate strategy in general, and the relationship it has with its third-
party developers. The findings presented here are the result of interviews with several key
Apple employees and several of Apple’s third-party developers.

The primary finding of this work is that the need for evangelism sprang primarily from the
fact that Apple was pursuing a corporate strategy of differentiation of its products. The
Macintosh operating system was a radical departure from the commonly accepted DOS
operating system, and the presence of an evangelism effort ensured that third-party
application software would be developed for the new platform. As Apple moves forward,
its differentiated product is threatened by the appearance of graphical user interfaces on
other operating systems. If Apple intends to continue to differentiate its product line, third-
party participation is essential, and evangelism of those developers will be key.

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To my parents, Monica and Bob Mylod, who have given me so many gifts, including this one, but none more important than the amazing example they set.

To Bob, Kevin, Paul, Monica and Megan Mylod, simply, five of the greatest people I know.

To Dan Schwinn, my best friend and an unbelievable inspiration.
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The inspiration for writing this thesis came from having spent several years working for developers of products for Apple’s Macintosh computers, and then working for the Evangelism group at Apple Computer during the summer of 1990. During that time, I was witness to the beginning of a period of major change for Apple. For the first time, Apple was going to ship a truly low cost (or “high volume” as they like to describe it) line of Macintoshes. From my perspective during the summer, I was able to see not only the implications of this product offering for Apple, but for the vast network of developers of third-party products as well.

In this thesis, I wanted to look at the evolution of the Evangelism group at Apple, and how it has fit into the success of the product leading up to this time. In addition, I wanted to see how this group and the developers they support would be affected by the shift in strategy the low-cost product offering represents.

I had the good fortune of speaking with a number of people from companies who operate in the Macintosh market (as well as on several other platforms). These people, and their observations provided much of the basis for this thesis. I would like to thank: Jeff Anderholm (Lotus Development), Guy Kawasaki (formerly of Apple and Acius), Eugene Lee (Beyond, Inc.), Iván Mímica (Articulate Systems), Timothy Morgan (Articulate Systems), Brad Parker (Cayman Systems), Conall Ryan (ON Technology), Scott Schnell (Apple Computer), John Sculley (Apple Computer, but then, you knew that), and Ted Stabler (Cayman Systems). These people live the relationship I describe in this thesis everyday, and I appreciate the time they took to share their thoughts with me.

Having worked for several very enduring players in the computer industry myself (GCC Technologies, Lotus Development, and Apple Computer), I have also drawn on my own observations.
Chapter 1
Background and Purpose

Right from the beginning in 1977, it was clear that Apple Computer was no "normal," mainstream company. A spirit of innovation and chance marked the young company for greatness long before it experienced major commercial success.

At Apple's annual meeting of stockholders in January, 1984, nearly seven years after the founding of the company, history was made. Steve Jobs, one of the company's founders, walked out onto the stage, said a few words to set the mood, removed a small box from a bag, placed it on a table, and turned it on. The little box introduced itself to the world with a series of graphics and pictures, and a simple message: "Hello. I am Macintosh..."¹

Even before this point, the company had accomplished a great deal. Its founders had been credited with the invention of the personal computer with its original Apple computer. The company had achieved substantial commercial success and had taken its stock public. It likewise had experienced a number of failures and difficult personnel transitions. However, it was the introduction of Macintosh in 1984 that would catapult the company onto a different plane--it was through Macintosh and its graphical user interface that Apple brought powerful yet easy-to-use computing to the world.

Understanding Apple's product

For any computer, there are at least three components to providing a product that is useful to a customer: the central processing unit (CPU), the operating system, and the application software.² In the beginning, Apple provided all three of these basic components for the Macintosh, though it quickly realized that its major strength lay

¹Sculley, p.181-2

²Admittedly, there are other critical elements to a complete system such as output devices, storage mechanisms and networking equipment and software, but the basic computer is known as the CPU.
primarily with the operating system. This system software’s uniqueness lay with its graphical user interface (GUI), which, among other things, substituted icons and a pointing implement (mouse) for characters and a keyboard as the primary control tools for the user. Apple also felt that it was critical that it keep control of the manufacturing and sale of the hardware element (the CPU), thus ensuring that all users who were running the Macintosh operating system (Mac OS) had a consistent set of hardware which the operating system could address. This hardware extended beyond just the processing chip itself to include such things as input/output devices, communication and expansion ports, storage devices, memory, power supplies, monitors, and other critical elements— all of the things that together make up the Macintosh. In addition, the hardware was and is the primary source of Apple’s considerable revenue stream. So, though Apple makes its money off the hardware, the reason people buy the product is largely because of the software.

The system software and hardware Apple introduced in the Macintosh were different from the DOS-based systems that were widely accepted as standard in personal computing at the time. Not only were Macs not compatible with existing systems, but Apple showed no signs of ever making them compatible with DOS systems. It was this differentiation that provided Apple with the seeds of its success. Although it was first regarded as a niche market at best, before long, Apple showed that there were a significant number of diverse customers who were willing to change hardware, change software, and pay extra to have this unique Macintosh system.

The remaining critical component to this idea of a basic computer product is application software; without it, the system is useless to the average customer. Without such applications as spreadsheets, word processors, databases, and electronic mail, which help customers solve a specific task or set of tasks, there would be no reason to purchase the CPU and system software. So in the beginning, Apple created and supplied with its first Macintosh:es basic applications such as MacWrite, MacDraw and MacPaint. Apple recognized early that there was a significant opportunity to increase demand for its
computers by providing software solutions to a wide variety of business, educational, and personal problems, but it knew that it could not develop enough application software to fully address all of these markets. Additionally, Apple knew that once introduced to the Mac platform, outside developers would likely think up new and unique uses for the Mac and its graphical user interface that even the Mac development team had not considered. It therefore took steps early in the process to get third parties interested in developing applications for use on the Macintosh platform. Its efforts in this area are the subject of this thesis.

The birth of Apple evangelism

In early 1984, when the Macintosh was first introduced, the IBM personal computer was a hot seller, and was revolutionizing the business world (to a large extent through the availability of a third-party application software product: Lotus 1-2-3). The IBM personal computer (and compatibles before long), and the Microsoft DOS operating system were already providing a platform for software developers to market innovative applications. The challenge for Apple then was to convince these developers who were already developing DOS applications to begin developing software for the Mac. Apple also felt that a new breed of developer, one who had not yet developed products for a DOS environment might begin developing software out of the challenge presented by the Mac. So in 1983 and 1984, Steve Jobs, president of Apple Computer and head of the Macintosh Division, instructed Guy Kawasaki and Mike Boich to "get Macintosh software...I don't care how."³ And so was born Apple's evangelism program.

To the those who are uninitiated to the world of third-party Macintosh development, the term "evangelist" may conjure up an image of a pinky-ringed, toupéed, television swindler who uses the Bible as a tool to separate believers from their hard-earned cash.

³Kawasaki, (The Macintosh Way), p. 34
While many developers’ impressions of Apple evangelists may at times approach this description, Apple evangelists are charged with “selling the Macintosh dream” to developers of complementary products. Their job, simply, is to ensure that quality applications are developed and sold by third parties for the Mac platform. Further, Apple evangelists look for applications that employ or highlight many of the uniquenesses of the Macintosh platform. The process of carrying out this goal is handled in a variety of ways, as we will see later on in this thesis. However, the efforts that were started by Kawasaki and Boich in anticipation of the announcement of the first Macintosh in early 1984, have since grown into a department of 25 evangelists who support and advise the top several hundred of the thousands of developers of Macintosh applications.

Purpose of thesis

This thesis will explore the role of this unique and sometimes unorthodox department, and how it has fit into Apple’s overall corporate mission and strategy throughout three periods since the introduction of the Macintosh. First is the period from development and first launch in January, 1984 through 1987 when the debut of the Mac II established the Macintosh as a viable computer for business applications. Second is the period from the shipping of the Mac II through the shipping of Microsoft’s Windows 3.0, which brought the graphical user interface to DOS computer users, thus eliminating the major source of differentiation of the Mac platform.4 Third is the period from the appearance of Windows 3.0 in May of 1990 through the present and into the foreseeable

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4 This is a somewhat arbitrary date, but the point is to mark the appearance of a major threat to Apple’s major product differentiation. In fact, many argue that Apple was under great pressure, right from the launch of Macintosh, to position the product as useful for mainstream business. This was accomplished by pursuing technologies which would facilitate the use of Macintosh in multi-platform environments. This positioning was adopted by Apple itself long before the appearance of Windows 3.0. I have chosen to mark the period with this event because it represents the demise of the last major compelling uniqueness of the Mac platform—the graphical user interface.
future. Today, Apple finds itself at the beginning of the third period and is having to fundamentally change its corporate and business strategies to continue to compete in the microcomputer market.

To study the role of evangelism throughout this evolution, I will examine Porter's theoretical work on the strategy of differentiation as a framework for looking at the Apple example. In addition, as background to studying the role of evangelism and third-party Macintosh developers, I'll look at work that has been done in the fields of innovation, R&D strategy, and third-party "partnerships." Armed with this conceptual framework, I'll proceed with a more detailed look at the evolution of Apple's strategic use of evangelism through these three periods based on interviews of members of Apple's evangelism group and published materials. The thesis concludes with an attempt to look into the future of the company, the evangelism group, and third-party developers.
Chapter 2
Theoretical foundations for evangelism and Apple corporate strategy

Before looking at the role of evangelism and Apple's developer community, we should begin by establishing a theoretical foundation for Apple's product/corporate strategy. Toward this end, the work of Michael Porter is particularly illuminating. This will provide a framework for explaining why the company has done what it has done in the past, as well as highlight some of the challenges and choices it has facing it from this point forward. In addition, a brief look at James Brian Quinn's work on managing innovation will help frame the relationship between the evangelism group and Apple's third-party developers.

Differentiation as Apple's corporate strategy

In his book, Competitive Strategy, Michael Porter describes three basic, generic strategies a company can follow:\(^5\):

**Overall cost leadership** - This strategy, characterized by low costs and tight financial controls with limited expenditures on any projects which are not deemed to be vital to the immediate goals of the company, is one which is often employed by companies who are interested in increasing market share. By being the most efficient alternative, such a company can virtually guarantee gaining the customer whose primary consideration is cost.

**Differentiation** - This strategy dictates that the company will provide a product that is unequalled in the market. It can be viewed as a strict monopoly where no other alternative exists to address the needs of the customer. In a less extreme case of differentiation, the company can set itself

\(^5\)Porter, p. 35
apart from the competition by providing some feature, or some level of functionality that is either unavailable or poorly implemented elsewhere. With this strategy, a company is likely to have more flexibility in pricing its products. However, Porter makes the important point that even with a product that is differentiated from its competitors, there is a trade-off between price and performance; customers will be willing to pay extra for the differentiated product, but only up to a point. Beyond this point, customers will forego the purchase, or try to make do with cheaper, less functional solutions.

**Focus** - This strategy dictates that a company concentrate on serving a vertical market of some sort, be it a geographical area or a particular segment of the market.

It is clear that Apple has chosen to pursue the strategy of differentiation and the corresponding increase in gross margin that is available to companies using such a strategy. This basic strategy has influenced every aspect of how Apple deals with its own internal development of products as well as its relationship with developers, customers and its competitors. Apple has been almost a model case in product differentiation as a basic strategy. Many of the characteristics Porter describes in his discussion of such companies apply to Apple:

**Strong marketing abilities** - Apple has long been recognized as a leader in the marketing of its products. It places a strong emphasis on innovative advertising, and has even been known to stir up controversy through its ads.

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6Porter, p. 41

7 The classic example of this is the 1985 Super Bowl "Lemmings" ad which depicted users of IBM computers as lemmings who would blindly follow the leader even if the leader was sending them over a cliff!
Product engineering - Apple has always taken an enormous amount of pride in its engineering. There are those who believe that it has concentrated far too much on engineering its own products, and has maintained a bias against products or technologies that it did not directly invent (this is referred to at Apple as the "not-invented-here" syndrome), which has ultimately hurt them. The relative failure of the Mac Portable is a good example of this. In this case, Apple insisted on adapting traditional Macintosh hardware into a "portable." Thus the Mac Portable is substantially heavier than the most successful portables/laptops for the DOS platform. The reluctance of Apple to outsource parts and components from vendors who had expertise in miniaturization reflects this "not-invented-here" syndrome.

Creative flair - There is little doubt among those familiar with the company and its employees that creativity is one of its strong suits. As Guy Kawasaki described, the mission of the company right from the start has been to provide products which help users be more creative and productive.

Strong capability in basic research - Though it is not widely known and seldom publicized, Apple maintains an Advanced Technology Group (ATG) which is charged with doing basic research that could lead to new products at some point in the future. This organization and this function have gained in importance over the years. In addition, Apple participates in many external basic research efforts; among them is MIT's own Media Lab, of which Apple is a founding sponsor.

Corporate reputation for quality or technological leadership - While there are those who believe that this particular characteristic has been stronger in the past than it is today, there is no arguing that Apple has advanced the state of the technology which is at the forefront of microcomputing in the world today.
Strong coordination among functions in R&D, product development, and marketing - As the company has grown, its ability to consistently maintain this strong coordination has varied. Given that it went from a product-based divisional organization in the early Macintosh days to a functional organization, and is now returning to the product division structure as of March 1991, one can see that Apple's strength in this area has not been consistent.

Subjective measurement and incentives instead of quantitative measurements - Apple has consistently been willing to have huge parts of its organization operate without measurements tied directly (or even indirectly in many cases) to its bottom line. As we will see later in this paper, this practice is beginning to change, as Apple's competitive situation becomes more fierce.

Amenities to attract highly skilled labor, scientists, or creative people - Apple is famous for its well-appointed offices, campus-like setting, employee parties, fitness center, and $2 million\textsuperscript{8} budget for t-shirts, coffee mugs, key chains, and other paraphernalia. In addition to these superficial (but effective!) means of attracting a skilled group of employees, Apple tries to provide salaries for its employees that are in the 90th percentile of all companies with similar job classifications within the high tech industry.\textsuperscript{9}

In all, there is little room for doubt that Apple has pursued a strategy of differentiation. The interesting question arises from the fact that there is now an alternative for microcomputer users wishing to use a graphical user interface to control their computer:

\textsuperscript{8}Kawasaki (Selling the Dream), p. 105.

\textsuperscript{9}Interview with Guy Kawasaki, 4/19/91. This has also been independently confirmed by several Apple employees.
Microsoft Windows 3.0. The advent of Windows has strong implications for Apple which will be discussed in a later section.

**Software innovation and developer relations**

The literature on innovation is useful in examining Apple's strategy relative to developers. As Quinn states in his article on managing innovation, "...a big company that wishes to move a concept from invention to the marketplace must also absorb all potential failure costs itself."\(^{10}\) If we take the Macintosh as a single product with the three components described above (CPU, operating system, and application), Apple avoided failure costs of application software development (and, arguably, avoided the "failure" of the platform) by spreading out a portion of the risk (and reward!) to its developer community. As I've mentioned before, Apple was smart enough to recognize that all of the ideas for how users could put a GUI to work for them did not reside within the Apple organization. It was a huge opportunity to be creative with the platform and the market, and Apple was wise to involve as many "stakeholders" in the pursuit of success for the Mac platform and the commercialization of the GUI-based operating system.

In the case of Apple, there are at least two aspects of its products' success on which Quinn's statement has bearing. First is the direct effect of companies having to absorb the cost of the failures as well as the benefits of the winners. In a company that invests in basic research and turns that research into commercial products, there are many failures for every success. There are huge costs associated with every one of those failures which, over time, are born by the profit from the successes. In its development of hardware and system software for the Macintosh, this risk/reward scenario is as true for Apple as for any other company that invests in basic research. The other way of looking at the Quinn statement is in the context of the application side of the computer product Apple

\(^{10}\)Quinn, p. 73.
delivers. Here, Apple has minimized the cost it must bear alone in the success of the concept of graphical computing by spreading the risks and rewards of application development among many constituents. It is clear from this that there is a mutual dependence that is established by this Apple/developer relationship. Each side relies heavily on the other to make its own product a success.

To the extent that there is a major alignment of interests in this relationship, it may be useful to consider the third-party developers as a single organization with evangelism at its head. While there are obviously difficulties with this model, the insights that can be gained from theory on corporate strategy, R&D and innovation within an organization are valuable to our study even though in reality it is not a single organization. Also, given the lack of similar examples of organized third-party-advocacy groups in this or other industries,\(^\text{11}\) as well as the lack of theoretical study of this exact phenomenon, it is necessary (and useful) to look at close approximations.

Let 1000 flowers bloom

The management of innovation literature offers another reason why external development makes sense, particularly given Apple's overall corporate strategy: "When the odds of success are low, the participation and interaction of many motivated players increase the chance that one will succeed."\(^\text{12}\) Having third parties do the research, development and marketing of application software increases the number of stakeholders in

\(^{11}\) Today, there are several examples of evangelism-type programs within the microcomputer industry. None, however, pre-dates Apple's, nor are any as developed or as widely known as Apple's. These can be found at such companies as NeXT, Sun Microsystems, Silicon Graphics and Go Corporation. In addition, after many years of providing little or no direct developer support, Microsoft is formalizing an evangelism-type effort to promote Windows development. Previously at Microsoft, advocacy for development on the DOS platform took place on an ad hoc basis by many and varied individuals within the company.

\(^{12}\)Quinn, p. 74.
the Macintosh's success as well as eliminates the need for Apple to have a whole (potentially huge) portion of its organization devoted to software development.

Since the goal was to create a commercially successful product line based on a fundamentally different way of interacting with computers, part of the success lay in the ability of application software to highlight that product differentiation. Involving more developers, more ideas, and more products greatly increased the chance that any of them would be a big winner and contribute to the differentiated Apple product.

One way of looking at the relationship between Apple and the developer community then, is to think of it as a single organization dedicated to application software R&D. The obvious inconsistencies to this analogy are the fact that Apple does nothing to financially support this effort during development and does nothing to market products that spring from the effort. But to the extent that Apple's products cannot sell without the existence of applications developers, it is logical that Apple would make some considerable effort to support (as well as try to influence) the work of third-party developers.

Looking ahead

When we look ahead to how Apple got to where it is in the market, as well as at how it is currently dealing with the threat from competing products and what its options are for the future in the face of that threat, it will be important to return to this understanding of Apple's general strategy and the role and importance of the developer community in innovation. Though not part of the same formal organization, this community has been critical in generating new and innovative uses for the Mac platform.
Chapter 3
Phase I--Development and launch of Macintosh to
debut of Macintosh II

Getting started

The early mission of what came to be known as Apple evangelism was plain and
simple: "get Macintosh software." In accomplishing this goal, a small number of Apple
employees (two, in the beginning) spent their time convincing companies, both large and
small, to develop software for a platform that didn't yet exist (early third-party software
development was done on the now-defunct Lisa computer), for a market that had no
customers, in a new and difficult operating system that boasted a graphics-based (rather
than character-based) user interface. As Kawasaki points out in his book, The Macintosh
Way.

In 1983 and 1984, Mike Boich and I sold the Macintosh dream to
hundreds of software companies by appealing to their emotions--
making history with Apple, wanting to change the world, or helping
Apple succeed against IBM. At the time, Macintosh was still months
away from shipping, and the computer industry believed that only the
IBM PC and clones could survive.13

Given the obstacles, particularly for those established software companies who
were already proceeding with development on the PC platform, undertaking a commitment
to develop for the Mac platform required a huge leap of faith. In many cases, high level
executives from key third parties demanded that Apple supply them with all sorts of
guarantees, engineering resources, co-marketing commitments, and even cash! Of course,
at such an early stage in the development of the product and the company, Apple was in no
position to be laying out lots of dollars and farming out extra engineers to other companies-

-there were none to spare! As he suggests above, Kawasaki (and Boich) needed to rely on other mechanisms to sell the dream. Fortunately the Macintosh story was, and always has been, compelling. Upon hearing the laundry list of demands, Boich and Kawasaki would generally ask the developers to withhold comment until after they had seen the demo of Macintosh. Once they had gotten a taste of what Macintosh was all about, Kawasaki says the meeting generally proceeded as follows:

After thirty minutes, either their jaws would drop to the floor, their eyes would pop out, and they would have to wipe sweat off their foreheads, or we'd go back to Cupertino.

If we stayed, we'd respond to their requests: 'We are not going to pay for your development. We cannot promise co-marketing. You cannot call [our engineers]. In fact, we have only one technical support engineer for all developers. And you'll have to make your program run in 128K [memory—a small amount even by 1984 standards].'

Continuing: 'That's the good news. Here's the bad. Our documentation isn't completed, but we can sell you photocopied drafts for $150. Also, you'll need to buy a Lisa for $7000 because a native Macintosh development system isn't available yet.'

Then everyone from the company would respond, 'When can we get started?'

In 1991, looking back on the beginning of the group, Guy Kawasaki says that the purpose of evangelism was to "get people to buy into the Macintosh dream, which is to help people increase productivity and creativity." In 1983, prior to the launch of

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15Interview with Guy Kawasaki, 4/19/91.
Macintosh, this meant doing whatever it took to convince developers to help Apple “change the world.” The critical goal then, was to help developers understand the power of the new graphical-interface-based operating system as well as the potential of the Motorola 68000-class processing chip, on which the Mac platform is built.

As Kawasaki points out, there was little he and Boich, or anyone else at Apple, could do to actually provide tangible assistance to companies doing Mac applications development. The key was to show off the distinctive Mac environment to anyone who would listen, and then provide as much advice, moral support, and, in some cases, promotion as possible, once a company had committed itself to developing a product. This hands-off, largely-advisory capacity of the evangelist has been one of the constants throughout the evolution of the platform and the company. This role helps distinguish the relationship of Apple and third-party developers from that of the auto manufacturer and supplier, for example.

It is important to note that at this stage of the company and the product, all developer support came through the evangelism group. In addition, developers only had to worry about one product (the Macintosh 128K), and there was no installed base of users who would have a strong influence on the migration of a developer’s product. As we look at the evolution of the industry, the company and the evangelism group, these factors will become important.

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16Sculley. p. 90. When Steve Jobs was recruiting John Sculley, then a marketing executive for Pepsi-Cola, for the position of president of Apple, the famous story goes, he summed up his arguments by asking Sculley if he “wanted to spend the rest of [his] life selling sugared water, or [did he] want to change the world.”
From launch through appearance of Macintosh II\textsuperscript{17}

The launch of the Mac ushered in a new stage in the role of evangelism. No longer were the group members selling \textit{strictly} a dream--they had a product to show. As the company developed and the Macintosh actually came into being, Apple rounded out its support of developers to include, in addition to moral support, documented technical information on how to develop for the Mac platform, as well as equipment at a discount. It provided this support to virtually anyone who wanted to develop products for the Macintosh.

Eventually, a group called the Apple Developer Group (ADG) was formed to address the needs of the developer community at large, focusing primarily on providing generic types of documentation and technical support. Evangelism continued on as an element of ADG, dealing with developers on a more individual level. Evangelists still needed to lobby heavily for companies to take the leap of faith required to do Macintosh development, but were relieved of the duties of photocopying the drafts of technical documentation, and answering specific technical questions on how to write code in the Mac OS environment.

Throughout the period prior to the launch of the Mac II (and some would say, even to this day), undertaking development on the Mac platform was still regarded as taking a substantial leap of faith. Many major software developers such as WordPerfect, refused to take it. Still others were convinced that there was an opportunity in the Mac platform, but failed to provide the right solution and thus failed miserably despite Apple's efforts. Lotus (with Jazz and Modern Jazz) fell into this category. Yet, Apple did manage to convince many major software developers to write software for its platform, and many of these were successful. The best and earliest success story, of course, is Microsoft.

\textsuperscript{17}Except as noted, this section is based on informal conversations with various fellow employees during the summer of 1990.
Microsoft represented, aside from Apple itself (who bundled a word processor and two graphics packages with every Mac), the major source for Macintosh software. In this period prior to the launch of the Mac II, Microsoft provided the Mac with spreadsheet technology (Excel), another word processor (Word), an integrated package (Works), and several other applications. To this day, Microsoft continues to be the largest (in terms of sales volume) developer of Macintosh software in the market.

The original goals of the evangelism group were to have at least 500 applications written for the Mac, by the beginning of 1985, one year after it shipped. It achieved only 10% of that goal, just over 50 applications. Nevertheless, what the Mac had in its favor right from the start was its interface. The graphical user interface completely changed the face of computing and provided Apple with a way to differentiate its products from all others that were available at the time. Nowhere else was such an interface available. This distinction meant, from a user’s standpoint, that using a computer was no longer a mysterious thing that required a degree in computer science to even begin. The beauty of Macintosh was that anyone could take it out of the box, plug it in, and use it to accomplish important tasks right from the start. The GUI (brought to customers by the operating system) made computing intuitive, and therefore approachable by a wider audience than had previously been possible.

While the Macintosh story was compelling, prior to the introduction of the Mac II, there were some major obstacles, both real and imagined, that the Mac faced in the market, which kept it from being widely adopted. For example:

- With its picture-oriented interface, the Mac was perceived to be a "toy" rather than a serious computing machine.

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18Interview with Guy Kawasaki, 4/19/91.
• Since there were a very limited number of applications available for the Mac, it was difficult for customers, particularly business customers, to consider purchasing it.

• Since there were only a few customers, many software developers were reluctant to dedicate resources to Mac products which had such a small market into which to sell.

• The first Macintosh had a small amount of memory which could be used by applications, and this severely limited the ability of third-party software developers to write robust applications for the Mac—the kind of applications which business would require.

While Apple would make substantial improvements to the Macintosh in its early years, it wasn't until the Mac II and the Mac SE were introduced in 1987 that some of the obstacles outlined above could be overcome.
Chapter 4
Phase II--From Mac II to Windows

Evolution of the product

The appearance of the Macintosh II and the Macintosh SE meant several things not only to Apple, but to its users and its developer community. Mostly, it meant greater opportunity to extend and develop the advantage that the Mac represented in the computing market. The obstacles described above were overcome by putting the Mac OS on a more powerful hardware platform, so that "serious" business applications would be possible. The main features of the Mac II were: a faster processor (68020), color, more memory (RAM) with the ability to expand, and "slots" which allowed users to customize their systems by adding "cards" which could do such things as improve the graphics/video capability of the monitor; and provide high speed networking, additional processing power, and many other capabilities.

For the developer community, the advent of these capabilities of the Mac platform meant that more customers representing different market "segments" would be interested in buying Macintoshes. It also meant that there were an increased number of ways that products could be developed for the platform. Now, not only did the market require software, but it also needed cards (hardware) for the expansion slots, it needed color output devices, and other more varied products than only software applications.

Throughout this period, hundreds of complementary products were introduced for the Mac and Apple Computer experienced tremendous growth. The Macintosh was finally beginning to be accepted as a critical development platform by third parties, and, more importantly, was being accepted in business as a viable computing machine.

The emergence of a more powerful hardware platform and the corresponding third-party products which brought solutions to a complete array of business tasks opened the door for the Macintosh in business. This was by no means, however, an easy decision for businesses contemplating a major purchase of computers. The Macintosh was significantly
more expensive than its PC counterparts, particularly when measured in terms of processing speed and memory. The compelling factor was, again, the graphical user interface.

One other characteristic of the market at the time (which also contributed to the higher price of the Macintosh) was the fact that, unlike in the IBM-PC world, there were no Macintosh clones. This meant that if a customer wanted a graphical user interface, s/he would have to buy a Macintosh from Apple. There was no other source for the Mac OS. So, while there were a number of important reasons why Apple did not license its operating system to other hardware manufacturers, one of the most important results of this decision was that it was able to use its monopoly position to operate with very high margins on its hardware products.

Changes in evangelism\textsuperscript{19}

The evangelist's job changed during this time as well. While there has always been and will always be (as long as Apple has minority market share) an element to the evangelist's job which is centered around "selling" a developer on the platform itself, the legitimacy of the platform was increasing with each Mac that sold. Now that the "basics," such as word processing, spreadsheets, graphics, database, etc., were available, the goal was to go wide and deep. For evangelists, getting developers to "go wide" meant encouraging the development of new and different classes of software, such as desktop publishing. "Going deep" meant encouraging competition in the basic software categories for the purpose of advancing the state of the technology and providing the finest solution possible for the users.

\textsuperscript{19}The findings presented in this section have been derived from interviews with Mfnica, Parker, Stabler, Lee and Kawasaki.
Both third-party developers and evangelists at Apple agree, the role of the evangelist had taken on a new character. Whereas in the time of Kawasaki and Boich the role might have been characterized as largely selling (some would even say begging), there began to be an evaluating and mentoring aspect to evangelism. Evangelists were being called on, both by Apple, and by developers, to identify those developers and those products which, in the mind of the evangelist, had a great likelihood of generating sales for Apple. These selected third-parties frequently enjoyed closer ties with technical and marketing people within Apple. They were privy to strategic information at an earlier stage than the general public. They received prototypes of unannounced Apple products on which to do application development and testing. In short, some developers became “more equal” than others during this period.

Critics of this narrowing of the evangelism focus argued that there was (and continues to be) too much randomness in identifying a potentially successful product for one or two people to pass a judgment which could significantly change the outcome of the development process. This “playing God” with new products had the potential to give an unfair advantage to a relatively weaker product, and could limit attention paid to more robust, worthy products. The argument was that if the evangelist happened to make the wrong assumptions about what was likely to make a successful product, both the developer who was overlooked and Apple could lose.

Given the thousands of registered Apple developers, however, according to Apple (as well as some key developers) there was a strong need to prioritize. Having an evangelism group which was charged with providing an element of Apple’s product (the applications) that is critical, but never showed up on its bottom line, generated all cost and no direct revenue. It is understandable therefore, that Apple would make some attempt to provide its highest level of support to those it considered to be its most important developers. The general support of the whole developer community was therefore
transferred to ADG, while evangelism grew to support a smaller number of priority developers.

With this transition from universal but limited support for everyone to very rudimentary support for some and more extensive support for others, the analogy of the developer community as a single, large R&D organization clearly breaks down. Under this approach, even before developers have had the opportunity to prove themselves with successful products, Apple categorized them. The results of this categorization added an element of hierarchy to a playing field which had previously been flatter.
Chapter 5
Phase III--Into a new era

Apple Computer is moving into a new stage in the microcomputer market today. With the introduction of Windows 3.0 by Microsoft, the edge that the graphical user interface represented for Apple in the market has been eroded, and that the company has been forced to compete more directly in areas which it has traditionally not dominated (such as price.) In addition, the company seems to be recognizing that creating an organization which can be more responsive to customer needs is critical, particularly as the company grows. All of these have implications for the role of evangelism and, as that role changes, for the success of the developer community.

Introduction of Windows 3.0

In 1990, Microsoft shipped a major update to its graphical user interface for the DOS operating system. Although Windows 1.0 shipped in 1987, the original package was not nearly sophisticated enough to bring truly graphical computing to the DOS platform. Windows 3.0, several upgrades later, features a windows-based interface, pictorial icons representing files, a “desktop” metaphor with folders, a drop down menu command system, a greater facility for using the mouse as an input device, and many other elements that are similar to the Macintosh interface.20 The package was introduced with a list price of about $150. Though there were some substantial compatibility issues between Windows and many existing DOS application software packages (Microsoft didn’t do heavy evangelism!), it was clear that Windows was going to be a major threat to Apple sales.

20 The similarity between the two systems has been the subject of a lawsuit brought by Apple against Microsoft--the “look and feel” suit that has been the cause of much discussion and controversy in the industry. This is, however, outside the scope of this thesis.
Specifically, this product meant that one could get most of the major benefits of a Macintosh by simply purchasing Windows for a DOS-based system. At this point in the evolution of the Macintosh, one of the primary markets Apple was trying to tap was users of a DOS-based machine who wanted a GUI. Apple would frequently use the argument that reduced training costs (due to the GUI being easier to use) would more than compensate for the added cost of buying a Mac over a PC. Now with Windows, an additional $150 added to a system which was already much less expensive (frequently in the thousands, not hundreds, of dollars less), gave users a Mac-like interface. Apple could no longer claim the graphical user interface as uniquely its own.

In the time that has passed since the appearance of Windows 3.0, users have discovered that there are significant problems still with the program. The most notable is that of third-party software compatibility. Microsoft created some confusion in the market by promoting its other operating system for more advanced IBM machines called OS/2, as well as Windows.²¹ Software developers for those markets were often unsure about where to dedicate their resources, not knowing which platform was more likely to succeed, and getting mixed signals from Microsoft about which it was going to support “more.”

In addition, while there are a great number of similarities, Windows is widely seen as still inferior to the Mac operating system. As reported in the weekly Macintosh industry magazine, MacWeek:

Networking snafus, upgrading and training costs, a lack of applications, and performance bottlenecks inherent to Windows 3.0 promise a continued role for Macs, not only in Apple strongholds but also in certain niches at heavy DOS shops.²²

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²¹MacWeek, 5/22/90, p.1.
²²MacWeek, 6/5/90, p.1.
Several months later, *MacWeek* printed these comment from systems experts from two major Macintosh customer sites:

Windows 3.0 shouldn’t make much of an impact on our direction. The number of Macs is growing much faster than PCs. The trend is for people to want a GUI, but you’re not just getting a GUI with the Mac, you’re getting the applications and the consistency between applications.

It’s good for the DOS community but it’s not as rich as the Mac. It’s sort of at the level the Mac was in 1984.23

As these comments suggest, Windows 3.0 is not likely to eliminate Apple as a successful player in the market. Still, by opening the way for a GUI in DOS systems, it significantly changed the competitive environment for the Macintosh and thus Apple’s strategy and the evangelists’ roles.

While arguing for developers to produce products for the Macintosh has always been the job of evangelism, with these changes in the competitive environment, evangelists are now often drawn into more direct, feature-for-feature comparisons between the Mac OS and Windows in their discussions with developers.24

**Shift in Apple strategy**

In response to the erosion of its monopoly of the GUI and to the cries of its customers for more affordable solutions, Apple appears to be shifting its strategy away

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24 Interview with Scott Schnell, Director of Apple Evangelism, 4/22/91.
from differentiation and towards price competition. We can see this in its product, in its pricing policy, and in its organizational changes.

While Apple has made many significant product introductions since the Mac II, there is one that is particularly relevant to this discussion of a change or shift in corporate strategy: the introduction in late 1990 of a line of more affordable, low-end, CPUs. There were three computers which were announced at that time: Macintosh IIsi, Macintosh LC, and Macintosh Classic. With the Classic, for the first time customers could purchase a Macintosh for under $1000. The significance of these computers is that they represent a commitment on Apple's part to compete on price, in addition to functionality. Previously, the company had operated with extremely high margins, and these computers are a shift in a different direction. The goal here was to generate sales volume first, and worry about profit later. For the first time, Apple was making a serious commitment to increasing its market share, and was willing to take a cut in profit to do it.

The operating system has also seen several upgrades since the initial Macintosh. Later this summer (1991), Apple is expected to ship the most significant change to the basic operating system ever: System 7. This system, which provides a facility for applications to exchange data more quickly and easily, and has made parts of the basic interface more intuitive and easier to use, is a step in the direction of maintaining the differentiation the Mac had always enjoyed prior to Windows. However, those who have seen System 7 (I myself have a pre-release version installed on my Mac), generally agree that while it is a step in the right direction, it is not a big one. It provides some interesting and useful options, but it is not substantially different from its predecessors, and certainly cannot stem the tide of Windows 3.0 success.

Further evidence of Apple's change in strategy is a shift in corporate organization structure in product marketing and engineering. The idea was to return to a more product-oriented organization which brings marketing and engineering closer together, thereby reducing the time it takes to bring a product to market. Another benefit Apple hopes to
derive from this organization is to increase the "entrepreneurial" drive of the company by making product groups smaller and more self-contained. This may also make innovation more likely, given reduced bureaucracy.

Changes in Evangelism

While it is too early yet to assess the full effect of these changes on evangelism, there is evidence that changes are occurring. The implications for the role of evangelism were confirmed by an e-mail I received from John Sculley in response to an interview request:

Evangelism worked best when we had major product differentiation. This way developers knew they could show off software on the Mac that they could not do anywhere else. With Windows' success, it's a harder story. And with Apple's new market share strategy vs. our previous gross margin (profitable niche) strategy, we don't have large amounts of extra expense dollars. I think evangelism will be important but we need to do some things differently.25

Given that evangelism is an area of the company that is pure expense with no tangible associated income, again, it would not be unreasonable to assume that Sculley would be planning to decrease resources devoted to that area.

This shift calls into question Apple's commitment to the third component of the "product"--the application software, and therefore, the developer. The organizational changes are still happening, and so it is unclear what is going to be the outcome of changes to the developer support organization, and evangelism specifically. Apple seems to have recognized the importance of cultivating innovation at the application software level up until this point. While there may be some temporary tightening of belts while the company

25AppleLink (e-mail) from J. Sculley to R.Mylod, 4/21/91.
positions itself to be able to compete on a more purely differentiated basis again, it does not seem likely that support of developer efforts will ever go away completely.

All of this evidence suggests that Apple is reacting strongly to the introduction of Windows 3.0, recognizing it as introducing real competition unlike Apple has ever experienced before. As we will see in the next section, this competition and Apple’s response to it raise strong questions about the future of the company and how it expects to compete in the future.
Chapter 6
Implications for the future of the firm and evangelism

In his discussion of generic strategies a company can take in building a business, Porter describes some of the pitfalls of differentiation. Two of them that appear to apply to Apple at the present time:

- the cost differential between low-cost competitors and the differentiated firm becomes too great for differentiation to hold brand loyalty. Buyers thus sacrifice some of the features, services, or image possessed by the differentiated firm for large cost savings;
- imitation narrows perceived differentiation, a common occurrence in maturing industries.\(^{26}\)

With the appearance of Windows 3.0, as well as some of the organizational changes that have recently taken place at Apple, it appears that Apple has made a definite decision to adjust, if not completely change, the original strategy of the company.

For the immediate future this appears to leave Apple "stuck in the middle," as described by Porter:

...a firm that is 'stuck in the middle'--is in an extremely poor strategic situation. This firm lacks the market share, capital investment, and resolve to play the low-cost game [and] the industrywide differentiation necessary to obviate the need for a low-cost position.\(^{27}\)

Apple's organization, from its manufacturing to its dedication to R&D and from its corporate culture to its fanatic customers, is positioned strongly against adopting a pure low-cost strategy. There are too many important barriers against such a move. Apple's

\(^{26}\)Porter, p.38.

\(^{27}\)Porter, p. 41.
strong suit has always been in differentiation; yet for now at least, it appears to be making a
very strong commitment to low cost and market share.

While it is impossible to predict with any certainty, it is unlikely that Apple will
stray from its original differentiation strategy for good. Though I was unable to confirm
this in any detail, there are strong reasons to believe that Apple is making major changes to
its original Mac OS which could be viewed as revolutionary (in that they will not
necessarily provide a clear upgrade path for the existing installed base of users and
applications). In addition, there is also reason to believe that the company is using its
creative tradition to develop products in completely new markets (such as the consumer
market), as well as entirely new platforms for existing markets. All of these assertions are
speculative, but not without grounding.

Evangelism seems to be a necessary component of a product differentiation strategy
in the personal computer industry. As a new form of differentiation is in the works,
Evangelism will probably remain as a necessary component of Apple's strategy. It is the
structure that matches that strategy. Some form of it will be needed as long as that strategy
is pursued.
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