

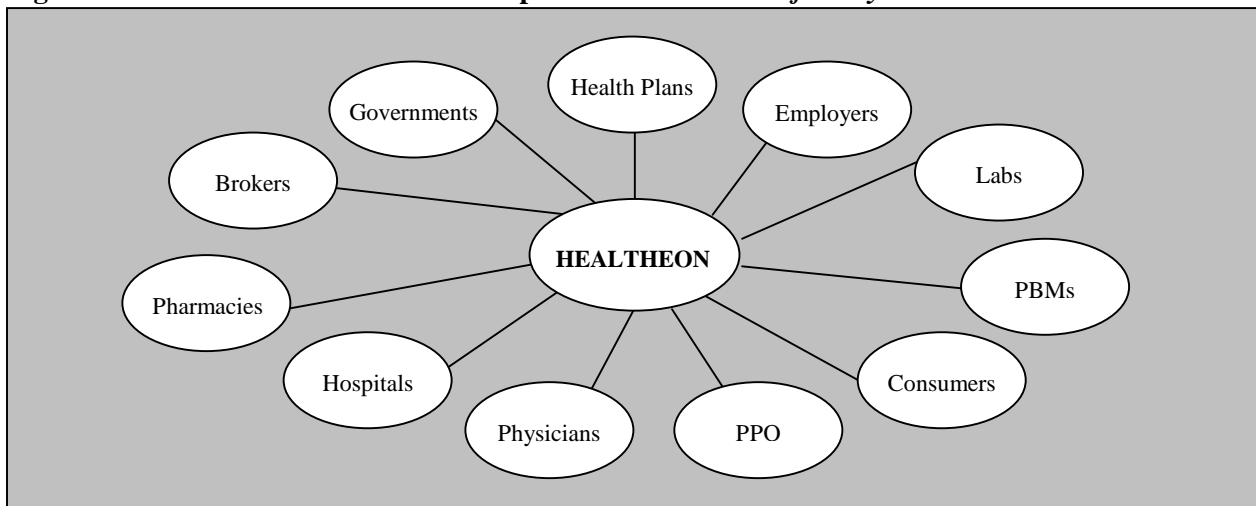
WebMD: Transforming the U.S. Health Care Industry

By: Ngoc Tran

TURNING THE HEALTH CARE INDUSTRY “ON ITS HEAD”

According to *The New New Thing*, Jim Clark (founder of Silicon Graphics and Netscape) conceived of Healtheon in 1995 after experiencing frustrating insurance bureaucracy following treatment of a blood disorder. As a result of his experiences, Clark believed that aggregating the entire health care industry on the Internet through one company would solve the industry’s inefficiencies by eliminating paperwork (see Figure 1).

Figure 1: Healtheon’s Business Model expressed as the *Chart of Many Bubbles*¹



While the Internet has transformed how we Americans learn, buy, interact, relax – quite simply, live our lives, the health care industry has been slow to respond and adapt to the efficiencies enabled by technology. Hence, five years after the creation of Healtheon, we see an evolved company that is responsive to shifts in market dynamics and developing ways to transform the health care industry with the Internet. Similarly, we witness an industry slowly adapting to these possibilities. This paper will provide an overview of WebMD (formerly Healtheon | WebMD) – the foremost Internet company in bringing the American health care industry online.

In May 1999, Healtheon merged with WebMD, a complementary Internet business model that would strengthen the company’s growing presence on the Internet. Whereas Healtheon focused

on consumers, WebMD targeted physicians. For the next twelve months, the merged company embarked on a buying spree to capture all the key players across their industry, spending \$10 billion dollars to acquire eight online health care companies in order to gain access to the strategic but fragmented players already in, or strategically positioned for, the Internet space.

NEW AND IMPROVED HEALTH CARE (THE WebMD BUSINESS MODEL)

As the “Chart of Many Bubbles” reflects, the basic function of WebMD is a connectivity provider for the entire healthcare spectrum. Patients can research conditions and treatments, join chat rooms, buy health-related products, join a community of healthcare consumers, and communicate with their doctors, labs and insurance companies. Physicians and other care providers can view patient records, buy supplies, research medical literature, communicate with the patient, check the outcome of a lab test, write a prescription, and seek reimbursement from an insurance company. The other major players online are health plans (such as United Healthcare) that allow customers to select physicians, review patient medical benefits, file claims and order ID cards. (Figure 2 lists WebMD’s customer base.)

Physicians	250,000
Dentists	54,000
Hospitals	4,600
Pharmacies	46,000
Payers	900
Laboratory Companies	11
Unique Users	4,000,000

(Source: WebMD Q3 10-K filing)

WebMD was the first company to attempt to bring healthcare online on a large scale, attempting to alter how an entire industry functions. As the innovator, it faced the challenge of how to persuade each health player online – reduce barriers to trial, lower switching costs, and maintain loyalty. To achieve this, WebMD developed the core technology for universal connectivity and created value for the industry due to adopting a new model of doing business. Figure 3 below details the various services that WebMD provides and how it generates revenue.

Figure 3: WebMD Value Offering and Revenue Streams

WebMD's Services	WebMD Sources of Revenue
<ul style="list-style-type: none"> ▪ Health news for the public ▪ Medical news for physicians ▪ Create/maintain current medical reference content ▪ Medical imagery, graphics, and animation ▪ Interface design ▪ Interactive applications ▪ Communities ▪ Live web events ▪ User Experience ▪ E-commerce ▪ Clinical informatics 	<ul style="list-style-type: none"> ▪ <i>Subscription arrangements</i> (sponsorships, content syndication & carriage fees) ▪ <i>Administrative services</i> (transaction fees) ▪ <i>Products & Services</i> (Development / consulting / IT management services and software licenses) ▪ <i>Advertising revenues</i> ▪ <i>E-commerce revenues</i>

(Source: www.WebMD.com)

If one considers the lessons of the Internet Bubble Burst this year, one notes that the key to sustainable growth (and profitability) is to sign on more paying customers: health plans, physicians and other providers of care to grow administrative fees and e-commerce revenues.

This focus will be the key to survival, rather than relying strictly on advertising revenues, as had been the historical strategy of many Internet start-ups.

WebMD's Strategy Prior to the Internet Bubble Burst

Based on Jim Clark's vision and his top programmers' expertise, the core competence of WebMD was technology. This competency drove the strategy of WebMD for much of 1999 and 2000 as it swiftly acquired key players that would enable it to gain critical mass by being connected to patients, providers and payers. By acquiring these various businesses, WebMD could rapidly integrate across the industry players via the companies that were already there. As WebMD recently reported to analysts, the "key leveragable assets" from these acquisitions include: becoming the "largest IT partner to physician offices, the largest provider of electronic transactions to the healthcare industry, and the leading healthcare portal."² To illustrate this point, the following table details key acquisitions and their strategic fit with WebMD.

Figure 4: Key WebMD Acquisitions

Key Acquisitions in 1999 & 2000	Strategic Value
<i>MedE America Corporation</i>	Provider of healthcare transaction services for hospitals, pharmacies, dentists, payers and pharmacy benefit managers
<i>Greenberg News Networks / Medcast</i>	Internet medical news and information service
<i>Kinetra</i>	Joint venture between EDS, Eli Lilly & a provider of health information networks and healthcare e-commerce services
<i>Envoy</i>	Provider of electronic data interchange and transaction processing services to the healthcare industry
<i>Medical Manager Corporation, including CareInsite</i>	Provider of physician practice management systems used by 75% of US MDs and developer of an Internet-based healthcare e-commerce network linking patients with doctors and suppliers
<i>OnHealth Network Company</i>	Online portal of consumer-oriented healthcare and wellness information, products and services

(Source: WebMD Third Quarter 10-K filing)

As one observer has keenly noted, “The appeal of the [WebMD] model is that all a provider needs is a simple Internet connection rather than a proprietary software and hardware package that requires on-site installation, maintenance, and upgrading.”³ Getting critical mass and having first mover advantage was an early success for WebMD. It was able to achieve economies of scale through locking in a large customer base (i.e., major US HMOs and numerous physician practices) – a competitive advantage that remains with WebMD today as new competitors enter.

Other interesting features of WebMD’s strategy include the method of purchase and the value extracted out of strategic alliances with industry partners. Nearly all of its acquisitions were conducted as a stock-for-stock swap (minor exchanges of cash). Similarly, WebMD applied the purchase method of acquisition, enabling it to write off significant intangible amortization on its financials. Partnerships and alliances were strategic both in whom WebMD selected to partner and how value was extracted. Similar to its acquisition strategy, WebMD partnered with major, critical players in health care to establish credibility: e-commerce partners (such as CVS.com), international health content and cable television (via News Corp.), major web portals (such as Yahoo), and major insurance companies (i.e., Humana, Aetna, and United Healthcare). In further maximizing the value from these partnerships, WebMD would trade services rather than

offer payment for the partnership, e.g., offer a level of advertising on its site rather than pay cash. We can easily recognize WebMD’s aggressive land-grab to take first-mover advantage and be in nearly every aspect of health care – while also getting the best deals out of strategic alliances.

WebMD’s Revised (Post-Internet Bubble) Strategy

The stock market adjustment for Internet stocks this year (a.k.a., the Internet Bubble Burst) has forced WebMD, like many other Internet companies, to revamp its strategies for the future.

WebMD stock has dropped from its high of \$125 in 1999 to \$6-1/32 (as of 12/08/00). Indeed, WebMD’s strategy has completely altered as a result both of the changing sentiment of investors towards Internet companies and the health care industry’s attitudes towards the value it offers.

WebMD is engineering various adjustments in its strategy to ensure long-term sustainability. It has shifted from a consumer focus to a provider focus, as one observer remarked: “The original focus was on WebMD as a trusted source for medical information. The [strategic] shift is focusing toward becoming ‘a healthcare destination for you and your doctor.’”⁴ Similarly, it has become more intent on integration of its acquisitions rather than growing its business. Late this past summer, WebMD announced a new phase of divesting non-critical assets to focus on its core business, also to reduce its costs by \$260 million as it eliminates redundancies in staffing, infrastructure, marketing and strategic alliances to become one cohesive entity. Simplifying its name from Healtheon | WebMD to just WebMD was a part of this strategy of reorienting its business and focusing on its core competencies.⁵ It has elected to realign itself to the physicians, who are critical to growing sustainably. This new strategy can also be

	1999	2000
Transaction fees	49%	51%
Advertising & E-commerce	0%	24%
Subscription revenues	0%	9%
Products/Services revenues	51%	16%

Note: Sales from prior 3 months for each year

(Source: WebMD Q3 10-K filing)

seen in the shift of revenue sources, detailed at right. Focusing on the provider side (physicians, hospitals, laboratories, pharmacies) – while maintaining its content to retain the loyalty of consumers – is how it can become profitable. The growth opportunities in catering to physicians can also be seen in WebMD's newest strategy of integrating wireless technology platform to help doctors with scheduling, lab results, transcription services and prescription writing. Jupiter analyst Rachel Terrace was quoted as saying, "...A wireless initiative will bring doctors to WebMD, and it could bring WebMD doctors into wireless."⁶

Within the last two months, four key members of the founding team have left the company, indicative of the dramatic shift in company goals and the type of leadership needed. Jeff Arnold, WebMD founder and former CEO, resigned to pursue other Internet opportunities, claiming that his value was the acquisitions side. Jim Clark resigned as Director, and the two original technology leaders, Pavan Nigam and Kittu Kolluri, have also left to seek new opportunities. Now running the company is Marty Wygod, WebMD's former Co-CEO and the founder of the Medical Manager acquisition (practice management software used by 75% of US doctors).

CHALLENGES FOR THE FUTURE

Market Acceptance Remains A Challenge

WebMD has been trying to alter how an entire industry behaves and is achieving only gradual success. While 52 million Americans (55% of all Internet users) go online for health information, the same adoption rate is not as high among physicians.⁷ According to Cyber Dialogue & Deloitte Research's survey of 1,200 US physicians, while 55% of MDs use the Internet daily, only 20% of these feel it is essential to professional practice, 21% email their

patients, and merely 4% prescribe online.⁸ Naturally, the adoption rate is slow because many members of the value chain perceive WebMD as an administrative hurdle in changing how their business is run, not to mention a risk to its profits and a threat to patient medical privacy.

However, the patient privacy concern is being addressed on two important fronts: technological safeguards for secure data transmission and regulatory requirements (and enforcement power) for protecting patient privacy. Similarly, as Medical Manager (acquired by WebMD in 2000) is the practice management software of 75% of US physicians, transferring these existing customers to the online WebMD service will be both a tremendous challenge and an incredible feat if accomplished.

Resistance from the Insurance Industry

Health plans typically invest premiums paid up-front and earn interest on that money (called “float”), thus some skeptics doubt that payers will be willing to make the payment process more efficient and expedient.⁹ However, plans may benefit greater in the reduction of errors in claims processing under the old, paper system than what they earn under float. Thus, it is likely that the rest of the industry will follow the trend to move online, possibly to WebMD, as industry giants such as Aetna, Humana and United Healthcare have started.

New, Competing Technologies Constantly Emerge

Other external challenges include forward integration by the key players and a consortium of health plans seeking to retain the savings for themselves. Beth Israel Deaconess Medical Center has developed its own online medical records system that allows physicians, nurses and patients to access any patient’s complete (current and past) electronic medical charts – via a secure

password. In addition, the physician can view vital stats, prescription drug history, insurance information, current medical literature, or a reference case in the hospital's patient database.¹⁰

The next step in their development is to link such a system to their more than a million patients' health plans and install a claims transaction program, which would eliminate the need for WebMD's services. This project arose out a merger of two hospitals in Boston and the need to integrate their multiple legacy systems, which is soon to include four other hospitals that have formed CareGroup Healthcare System with 3,000 doctors, 12,000 employees, and 7,000 desktops now linked through this new web-based database.¹¹

Seven major managed care companies joined forces this past November to create MedUnite, a closely held online healthcare transaction processing company. Comprised of Aetna Inc., Anthem Inc., Cigna Corp., Health Net Inc., Oxford Health Plans, PacifiCare Health Systems Inc., WellPoint Health Networks, this new company will pose significant challenge to WebMD. MedUnite will provide interactive network services including payment of claims, patient referrals and eligibility checks. Not only will WebMD's potentially lose a major customer in this deal (Aetna) , but it now faces a significant competitor in its market – with 61 million lives covered, representing 25% of the total insured population.¹² MedUnite claims it will focus strictly on the transaction side of the business, claiming to pose little direct threat to WebMD.

However, in the war for standards, WebMD is currently winning as the owner of Medical Manager (a practice-management software used by thousands of doctors) and Envoy (a private electronic network used by many physicians to submit insurance claims to most of the MedUnite members' health plans), which would be costly to transfer to non-WebMD systems.¹³ This

standards war is critical, as the federal Health Insurance Portability and Accountability Act (HIPAA) requires the industry to adopt a standard format for electronic transactions in the next few years.¹⁴

Only time will tell whether or not WebMD (or its competitors) will indeed be the future of health care. What is important to remember, however, is that WebMD should be credited among other Internet pioneers like Amazon.com, FreeMarkets.com, and Covisint.com in attempting to transform a business model, improve efficiency, and benefit the end-customer. For this, WebMD is an amazing icon in our Internet history of 2000 and in our nation's health care industry.

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