neospec.com

A Physician's Networking Tool

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Executive Summary

Doctors, while usually on the edge of technology, are still using backwards communication tools such as phones and word-of-mouth recommendations. This results in difficult networking and a limited resource base. Neospec solves this problem by creating a website specifically to connect doctors. Neospec will let doctors find other doctors and easily communicate with them in order to bring a larger amount of information and possibility to each physician.

Neospec allows physicians to log into their account to create a profile that other physicians can view. This can include email, homepage, practice philosophy, affiliations, professional achievements and awards, research, and past work experiences. While logged in, the doctor will have the capability to search for doctors anywhere in the United States. The site creates a new portal for long-distance networking and brings more information to a centralized location, putting all 700,000 brains together to help the advancement of medicine. The novelty of the site is the purpose: Neospec's goal is to assist doctors with their practices and allow for greater information flow across larger distances.

The key to developing this networking tool is ensuring that physicians across the United States use it such that other doctors have a strong incentive to join. Without the critical mass of doctors, the website will simply collapse since it will not have enough information in order to attract more users. Thus, it is crucial to gain members quickly once it has launched. The easiest way to do this is by partnering with an existing organization that has credibility amongst this community. The obvious choice is the American Medical Association (AMA), since all doctors in the US are members. Working with the AMA has several positive benefits: first, Neospec immediately has access to over 700,000 doctor records; second, the doctors are far more likely to trust the AMA than an unknown third party, which should result in more users; and third, this eliminates any potential competition from the AMA.

Additionally, the product must be publicized quickly and effectively. At any large gathering of doctors, the website needs to be advertised prominently. Thus, launching the site at an AMA conference is a sure way to boost interest. Another key group is the private practitioners and family doctors, who may not travel to conferences often. In order to attract these physicians, it may be necessary to personally visit health centers to talk to the senior physicians and ask them for their support. Once an area has become completely introduced to the website, marketing in nearby areas can proceed. However, attempting to spread the site across the U.S. in one fell swoop could prove to be a difficult task.

While there are many directories which contain doctor information, there is not a single one that allows *doctors* to easily search and directly contact other doctors. The current market is directed only at the patient, with many sites dedicated to informing patients about the best doctors in the area. The AMA already has a "DoctorFinder" which lets patients search their database for a doctor close to home. The WebMD "Physician

Directory" adds the additional feature of requesting appointments online. These sites also allow doctors to update their own profile, yet they do not provide any incentive for the doctors to keep their profile up to date and well stocked with information. A successful partnership with the AMA will ensure that DoctorFinder does not interfere and compete with Neospec, and because WebMD does not target doctors, the advantages of Neospec still shine through.

Finally, Neospec has the potential to be an extremely profitable website. The revenue will come straight from the advertisements on the site. Since Neospec targets doctors, the advertisements on the website will also target doctors. These advertisers could include pharmaceutical companies, malpractice defense attorneys, journals and reference guides, and health care providers. With cheap plans to hook advertisers into the website, the revenue will inevitably grow. Additionally, the overheads of server space and tech support will not require a significant amount of money. The initial stage of the project will require a fair amount of investment to keep doctors coming back, but once Neospec is off the ground, the website could become the premiere source for medical communication.

The Company

In recent years, the concept of small companies running large, user supported websites has been successfully booming with sites like Flickr, MySpace, Facebook, Digg, and others. These companies are the beginnings of what has been deemed Web 2.0, where sites are kept up and supplied by the users rather than armies of employees. Neospec (from Latin roots meaning "new look") aims to take a new approach to health care communication, to launch the traditionally high-tech industry of medicine into this new wave of internet technology. Neospec can be created and maintained with minimal resources. Craigslist, the seventh largest website in the world providing classifieds for millions of users, is maintained by a staff of only 19. YouTube, which shows over 30 million video clips a day, is staffed by a team of only 25. Neospec is reaching a much smaller audience with only 700,000 doctors to reach, and would thus not be so efficient as the larger Web 2.0 sites, however it could manage operations with surprisingly small staff given the number of people it will be providing service to.

The Market and Competitors

Health care is an industry that has always strived to be at the cutting edge of technology. Physicians are in constant contact with their patients, their hospital, their nurses, to provide the most timely and suitable treatments for their patients. With health care trending towards more advanced electronic technology (with PDAs, tablet computers,

and computers on wheels, and electronic medical records) a market for software and services to serve the high tech doctor has been created.

Existing Competitors
In a recent survey by the Society for Academic Emergency Medicine, over 72% of people stated that they were dissatisfied with their doctors. This creates a very profitable spot for companies to fill: help families find a better physician. Thus, a simple Google search for "how to find a doctor" returns thousands of results, including several websites with databases full of practicing physicians. These sites are free to the user and allow patients to search for any type of physician within an area. However, none of these target the doctors and provide the doctor with any sort of benefit to keep up with the site and add information for the patients.

Major Competitors:

AMA DoctorFinder
This database is one of the most extensive databases of doctors available, because most US doctors are members of the AMA. This allows patients to search for doctors via zip code, state, name, and specialty. After searching, information about the relevant doctors is displayed, such as name, address, and phone. However, this service does not determine which doctors are better than others. Thus, while this allows the patients to view other doctors in an area and provides basic information about the doctors, it does not differentiate between the doctors.

From the doctor side, *DoctorFinder* does not allow for much personalization. It is possible to display a picture and add personal achievements. DoctorFinder also lacks significant doctor usage, with very few doctors actually editing their profile. Moreover, Neospec plans to partner with the AMA in order to eliminate this competitor.

WebMD Physician Directory
WebMD is perhaps the biggest competitor to Neospec because it encompasses many different angles of healthcare. Besides the physician catalog, WebMD contains a large, searchable symptom database to help patients diagnose and treat themselves at home. Their physician directory is also comprehensive, containing all of the same information as *AMA DoctorFinder*. However, WebMD has added the feature of letting patients request appointments online. Unfortunately, online appointments have not caught on, and nurses prefer patients to simply call instead of using the online forms.

Medscape, MediLexicon
There is only a handful of websites directed at clinicians. The registered users have access to over 100 medical journals and textbooks, "Continuing Medical Education" activities, and a complete list of conferences. *Medscape* also has specific health-related news, patient education centers, and "Ask an Expert" pages. *MediLexicon* is a widely used source for up–to-date information to help with diagnoses or for easy to access drug information. While these features are extremely beneficial to doctors and nurses, the key selling point of Neospec is the ability for doctors to network with each other. Yet,

Medscape still poses a large threat to Neospec because it already exists and contains many features which help doctors. Neospec will have to compete with these sites as an information site in order to grow and maintain its member base.

DrLists, DoctorDirectory, PhysicianReports.com, DrScore
These websites all attempt to imitate *DoctorFinder* and *PhysicianDirectory*. These are designed to help the patients find a different doctor as opposed to helping the healthcare professionals from finding more information. Some of these cost money, others require an account, and others simply do not have enough doctors listed in their database. In addition to these shortfalls, none has the credibility to pose a threat to Neospec.

The Product

The website's main objective is to appeal to the doctors, but is also designed for patient use. Thus, there are two very different sides of the site: an interface for those with access to all the data (only physicians) and an interface that the public can view.

For Doctors
Each practitioner will have his or her own personal profile and webspace – similar to any blog. There will be options for many identifiable characteristics, such as specialty, universities attended and graduation years, place of residency, current location and information regarding their workplace, languages spoken, and others can be added very easily. Most of this information can be obtained from the AMA and automatically filled out for them, making it easier to sign up and start using the main part of the site. In addition to this basic, factual information, the doctors will have many more options to display their performance. For example, some physicians could upload the various research papers that they have authored over the course of their tenure while others can document their successes with before and after pictures or scans of patients. Lastly, the doctor will be able to choose to be "Accepting new patients" or not. In the case that s/he is not, s/he will have the option of recommending another doctor. Should the doctor be at all nervous about letting information about their practice be made available to the public, there will be privacy options for allowing visitors and other doctors various levels of viewing privileges. Some information will remain hidden to prospective patients but will be made available to registered doctors. (See Table 1.)

In addition to simply posting information about him or herself, the physician will be able to view information about other doctors. Again, the amount of information viewable is dependant upon the level of privacy set by the doctor, with some information necessarily viewable. Once a doctor, call him Dr. X, has found another physician, Dr. Y, that interests him, then Dr. X can request to become part of Dr. Y's network. Dr. Y then has the option of rejecting or accepting this request. Assuming that the doctors then become part of each other's networks, both will have access to view the extended profile of one another. Furthermore, Drs. X and Y can specify the closeness of their network connection, ranging from meeting online through Neospec to being acquaintances

through conferences to being regular coworkers. Once networked, Dr. X and Y can exchange messages, post on each other's forums, and study each other's research. Additionally, Dr. Z, who is networked with Dr. Y, can now more easily connect with and possibly collaborate with Dr. X, later adding him to his own network. This is the major advantage that Neospec has over the other websites: doctor interaction. By developing networks, doctors are able to contact others across the country very easily. This is valuable for finding potential research partners, recommending doctors to patients who are moving, and building credibility. By communicating with doctors across the country, doctors will be able to build a reputation as a well-known and prestigious doctor more quickly.

The last feature is the addition of forums. These provide the users with a quick way to post questions or requests to the entire community. For example, a doctor may need a partner on a research proposal or a specialist in a rural area. Maybe they are looking for an experienced surgeon to add to the staff of a hospital or need assistance in diagnosing a patient. This feature will be very difficult to bring to a sustainable point, because practicing physicians simply do not have the time to browse forums. Regardless, the possibility of creating another venue of interaction is necessary to help attract doctors to the website. With the prepackaged nature of forum software, it is very easy to put in a set of forums for the doctors to chat.

For Patients
This part of the site is not essential to the functionality for practitioners. Since the main goal of the website is to help doctors interact with other doctors, patient functionality is not crucial to the development of Neospec. Even still, it is important to allow patients to view some parts of the site such that more traffic is generated, thus attracting advertisers to the site. The patients can view basic information about the doctors and have access to selected medical databases.

Development of the Website
With such an expanse of information on Neospec, the development of a website will need to be carefully planned out. The necessary programming and optimization of data requires professionals to spend days to draw blueprints and ensure that the website will be comprehensive and user-friendly. Additionally, attaching the login information to the AMA databases adds another hiccup in the launch of the website.

According to one developer, a basic version of a social networking website would take three to four months to create with a team of developers. Integrating the various resources into the website will add more time, pushing the timeframe to nearly half a year. The capital and timeframe for development also leads to the possibility of changing technologies during the process. For example, the cutting-edge programming language is currently PHP and MySQL, but this is likely to change in the next year. Meanwhile, doctors using PDAs with infrared technology may move on to Bluetooth. The need to create programs for PDAs is essential, and making it compatible with all the current

platforms will require a few days of tinkering. Luckily, transforming existing code from one platform to another does not burn significant amounts of money or time.

Risks and Regulations
With the recent boom in online communication, a profusion of new websites has sprung up in all industries to try to capture the new market. Neospec, which would be one of these sites, combines the networking power of Facebook with the information provided in Medscape. These websites, having already existed for several years, have the financial ability and copyrights to file lawsuits against Neospec. Such lawsuits have the potential to destroy a new company because of the financial difficulty associated with such intense arguments and long hours. ConnectU, a college networking website, sued Facebook for illegal use of their programming code, and in the earliest stages of the lawsuit, the monthly costs exceeded $20,000. Unless the AMA is willing to foot the bill on many of these expenses, a lawsuit would easily cripple such a company and force them to fold. However, there is no reason for Facebook to waste time suing Neospec, since the targeted audience is completely different. Meanwhile, Medscape has the exact same audience as Neospec and therefore has a vested interest in seeing Neospec fail.

There are very few regulations regarding the content that can be posted on the Internet. On Facebook, there is virtually nothing that is reported and taken down from the website, so long as it does not jeopardize Facebook in any way. Thus, the only possibility of any limitation on Neospec will come from the doctors themselves, who cannot afford to allow any questionable material to be posted. Professional sites need not be regulated because the users censor and regulate themselves.

One major problem with the market is the lack of a simple but effective method of ensuring that the doctor is the only one with the ability to change their information. In the *WebMD Physician Directory*, the only information required is the office fax number. Thus, after searching online for around 10 minutes, it is possible to access the profile of any doctor. *WebMD* claims to verify any changes by calling the physician's office, but the hassle of calling the center every time a change is made is unsustainable. Using the AMA licensing numbers and obscure personal information, *Neospec* will certainly be more secure than the other sites.

Marketing

The marketing for Neospec needs to attract the physicians, who will in turn attract the advertisers who are targeting doctors. After building a solid base of physicians who regularly visit Neospec, the website will need to expand in order to attract the general public to popularize the site in all circles.

Attracting Doctors
Doctors are extremely busy, with little to no time to spare for gimmicks and registrations. Every professional receives hundreds of emails everyday, asking them to join another

society or help with the advancement of a cutting-edge technology. However, most of these go straight to the trash, because it takes too long to acclimate to the interface or due to the uncertainty associated with these new companies. Neospec will streamline this into a very quick, painless task. Once at the site, the new user simply has to enter in their unique license number from the AMA and verification to gain access. Most of the information will be pre-entered based on the records from the AMA, allowing the physicians to log in and immediately have access to the information. Additionally, the credibility of the AMA will be transferred to Neospec by association, increasing the probability that doctors will try it.

The main unique feature of Neospec is the networking opportunity that exists, but this cannot exist until a large number of doctors use the website. The problem is reaching such a critical mass of doctors to make it worthwhile for doctors to keep coming back to the website while the networking possibilities are limited.

The easiest method of reaching a wide audience quickly is advertising the website at conferences. The partnership with the AMA is essential here, because the AMA holds many conferences each year during which *Neospec* can be displayed. Additionally, Neospec will be equipped with the software to allow doctors to register for conferences, giving doctors further incentive to continue using Neospec.

Attracting Advertisers
The ideal advertisers will be those targeting clinicians. These would include advertisers such as pharmaceutical companies, medical journals, and defense lawyers. While these are the most likely advertisers, generic ads will be plentiful as well. Doctors remain one of the highest-paying professions, and luxury items target such a crowd. With such a unique and homogeneous audience, many advertisers will be able to customize their ads based on the basic profile of the doctor who is currently logged on. Cardiac disease drugs can be advertised to only cardiologists while cancer drugs could be advertised to only oncologists. This allows for a much larger variety of opportunities for the advertisers to seek out Neospec as an advertising spot.

Attracting Patients
The patients have several reasons to choose Neospec over any other website. The most obvious reason is Neospec has a complete listing of doctors. The AMA name lends authority status to the website. In order to publicize the website, a quick way to the top of a Google search is simply Google bombing phrases, like "find doctors", such that the first hit is Neospec.com.

However, it is also essential to create the site first for doctors, and then for patients. While additional traffic through the site is always good, the focus of the marketing scheme, especially in the early stages, must be on the physicians.

Financials

Development
The development of the website will take several months to complete with adequate financial resources. According to one web designer, a website with these features will require over $100,000 in labor and server costs for just ten-thousand doctors. At this point, it will be difficult to find a venture capitalist or investors to take some of the strain off the company. Once the website is created and running, partnering with the AMA will require several meetings to convince it that this is a product worth backing. Without the AMA, a large portion of this business plan fails.

Launch and Early Stages
Assuming that the AMA is ready to support the website, Neospec will be unveiled at a conference in an attempt to immediately gain thousands of users. Once users begin to flow into the site, the server costs will increase, but the advertisements will also begin to generate profits. When Facebook was first launched, the server costs were less than $100 per month for approximately 4,000 users. Even assuming that this has tripled over the past couple years, with a cost of just $300 per month, the overheads are very small. However, this is the most important part of future development because it is easy to modify the website and personalize it for each doctor. Thus, the additional development and tweaking of the website during this time is crucial to keep the doctors coming back.

As an Established Networking Tool
After a significant portion of the doctors across the U.S. join Neospec, it will have a lot of staying power. In order to maximize this, the website should expand from networking to an information source as well. This will require an additional amount of space to contain many more databases, but will drastically increase traffic, allowing more advertisements to collect revenue.

Advertising
The only source of revenue is advertisements. There are currently two major methods of charging for the advertisements. The easiest method is payment per 'impression', or every time the ad is displayed. Usually this is expressed in cost per mille (CPM), or the cost per thousand times the ad is displayed. The other method is "pay per click", which means that the advertiser will pay a set amount every time a user clicks on the ad. Based on the message being sent and the utility of the ad, Neospec and the company can reach an agreement about the optimal method of payment. As the website grows larger and larger, it will be more effective to charge per click because of the sheer volume of hits. For example, it is virtually impossible for Google to charge per impression because it receives billions of hits each day.

Future Plans

If Neospec becomes a success in the medical world, it could easily be expanded into other fields. A decent directory of any other field does not yet exist on the internet. There is definitely a market for professions such as lawyers and dentists, and perhaps smaller markets exist for other fields as well. With the software already developed, transforming Neospec to create networks in other fields would be a minimal cost for the benefit to the company. Also, being the first entrant into the market of online professional networking gives Neospec an edge on any competition that might try a similar concept in other fields.

Exit Strategy

For Neospec, exiting the networking industry should not be a difficult task. The only physical assets are the servers, which are not difficult to liquidate. If the AMA chooses not to back Neospec, the software developed is not worthless. Assuming a well-made website, the code will be easy to modify and therefore easy to adjust to a different database. Thus, the software can be sold to one of the better established competitors such as Medscape. Due to the lack of tangible assets, the exit strategy is simple.
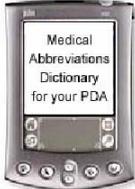
Image1. Neospec profile

Table 1.

Profile Privacy - available information to different viewers	All	Doctor	Network Member
Basic Information			
Name, picture	x	x	x
Specialty	x	x	x
Work address, ph, etc	x	x	x
Med school, year	x	x	x
Place of residency	x	x	x
Extended Information			
Professional awards			x
Undergrad university			x
Personal Information			x
Practice Philosophies			x
Research			
Published papers		x	x
Working papers		x	x
Conferences attended		x	x
Images/other stuff		x	x
Other			
Accepting new patients	x	x	x
Insurance accepted	x		x
Personal website			x

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