

This successful Executive Summary was submitted in the 1998 MIT \$50K Entrepreneurship Competition. The CheapTalk team has graciously allowed its use as an example for teams entering the MIT \$50K. The MIT \$50K Organizing Team thanks CheapTalk and its members for allowing the use of this document.

CheapTalk Executive Summary

1998 MIT \$50K Entrepreneurship Competition

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CheapTalk's Mission

CheapTalk will provide businesses with targeted, real-time and location-specific advertisement of their products and services by delivering advertising email messages over cellular networks to consumers using advertisement-subsidized, digital cellular phones. CheapTalk will manage merchants' advertising over this new medium.

The Opportunity

Companies are always searching for a new advertising medium. Thus far companies are limited to two forms of advertisement: direct and indirect. Indirect advertising employs broadcast media such as radio, television, web pages and print. With indirect media, a business cannot be sure whether their message is reaching the target consumer. Measuring the effectiveness of this advertising media is difficult. At best, indirect advertising effectiveness is decreasing as consumers are exposed to a growing number of ads with greater frequency. Direct media include cold calls and direct mail - print or electronic. This form of advertising also faces declining effectiveness. Consumers find telemarketers annoying and disturbing while direct mailing is the most expensive advertising medium.

Direct and indirect advertising channels also possess common disadvantages. With the numerous advertising channels, consumers have become numbed by the onslaught of advertisements that have no relevance to them. As such, the effectiveness of each company's advertising dollar is decreasing. The most fundamental weakness of all these traditional advertising channels is the timing of the advertising exposure and the selling opportunity is disjointed. *When consumers hear a radio ad or see a TV commercial, they are unable to act on the information.*

Still, companies spend a tremendous amount of money on these ineffective forms of advertising. According to McCann-Erickson, a leading ad agency, advertising spending in 1998 would total a record \$198.4 billion. Advertising expenditures in all overseas markets are expected to rise 5% to \$236 billion in 1998.

1997 Budgets of National Advertisers

	Amount (\$ in Billions)	Change from 1996
Four TV networks	\$13.3	1.5%
Spot TV	\$10.0	2.0%
Cable TV	\$5.3	18.0%
Syndication TV	\$2.4	7.5%
Radio (network/spot)	\$2.9	9.0%
Magazines	\$10.0	8.5%
Newspapers	\$4.8	10.0%
Direct mail	\$36.9	7.0%
Yellow pages	\$1.7	8.4%
Other national. Media	\$22.7	6.4%
Total National Media	\$110.0	5.7%

CheapTalk will provide a more effective advertising channel by using an existing communications channel to create a new advertising medium. CheapTalk will use the existing wireless communication infrastructure to send short message (SMS) email advertisements to the 8 million digital cellular phones and more than 1 million PDAs with wireless connection capability (growing at over 50% a year). Today, 12% to 17% of U.S. inhabitants have wireless phones. Of the current 55 million subscribers, there are approximately 8 million digital subscribers (who can be expected to have SMS capability). This number is expected to double to 16 million by the end of 1998. By 2001, IDC expects the digital subscriber base to grow to 55 million. In Europe, CTI estimates in 1997 there were 26 million digital cellular phone subscriber. This number is expected to grow to 50 million by 2001. Similarly in Asia, digital subscribers are expected to grow from 25 million in 1997 to 82 million in 2001.

The CheapTalk vision is to allow merchants and advertising agencies to generate customized promotions and send the location-based, real-time advertising to the fast growing cellular phone and wireless-PDA user base.

The CheapTalk Solution

Description of CheapTalk's Solution

CheapTalk will provide businesses with a new advertising channel that is far more effective than traditional media. CheapTalk's end to end solution will allow businesses to compose customized email advertisement messages and direct them to the appropriate consumers at the ideal time and location.

CheapTalk will partner with cellular service providers ("CSPs") to develop advertising-subsidized, cellular service programs for consumers. Attracted by the subsidized service, consumers will enroll in the program. Upon registering for the program, CheapTalk will capture extensive demographic and psychographic information on these subscribers and develop an extensive database on their buying habits. From this database, CheapTalk can match merchants with interested consumers, using proprietary software and quantitative marketing algorithms. Once these matches have been identified, businesses can create a highly customized email advertisement for these high potential consumers. CheapTalk will send the email advertisement over the cellular network. Through our proprietary software, CheapTalk can track when a customer is nearing the business' physical location. *At that critical moment, CheapTalk can send the email advertisement to the consumer, creating a high possibility a transaction will occur.*

Benefits of CheapTalk's Solution

CheapTalk's solution addresses businesses' need for a more effective advertising medium while also providing benefits for cellular service providers, retailers of cellular service, and cellular subscribers.

Businesses

Using the existing wireless communication infrastructure and CheapTalk's solution, businesses will have a new and much more effective advertising channel to reach customers. CheapTalk's solution can target specific consumers through the profiling and analysis of subscribers. Moreover, businesses can customize email advertisements for each consumer. Businesses will be able to change their messages, enabling promotions such as dynamic pricing through the use of coupons.

Still the critical difference between this form of advertising and traditional advertising channels is greater probability of an advertisement leading to a sale: ***the right message about the right product gets to the right customer at the right place and right time!***

Cellular Service Providers

CSPs will want to partner with CheapTalk and introduce a subsidized cellular service to consumers for several reasons. First, CheapTalk will pay the CSPs for access to their networks, in order to send the advertising messages to consumers. Second, CSPs can access an untouched market segment as they can recruit more price sensitive consumers via subsidized service. The danger of cannibalizing their existing customer base is small, as an advertising subsidized service is fundamentally different from standard cellular service. Third, CSPs have the opportunity to earn profits from consumers that use the phone in excess of the free, allocated air-time. Lastly, CSPs such as Sprint and AT&T are competing fiercely for customers. Already we see price wars and free equipment for consumers. To attract more customers, CSPs will need to lower prices even more, but this is becoming a less economically viable option. CSPs can no longer afford to compete on price as fierce competition has driven down prices to minimal levels. Advertising subsidized service gives CSPs a viable alternative to direct price cuts.

Consumers

Through the advertising subsidized service, consumers have access to cheaper wireless communication. Studies by the CTI show that price is a critical factor for consumers in deciding to purchase cellular phone service. While cellular phone penetration is increasing, many would-be customers are deterred by high monthly fees. The monthly cost of cellular service thus far has limited cellular phone service to business people and upper income households (the average household income of a cellular phone user is \$65,000). An advertising subsidized service would remove this barrier.

Addressing the potential perceived annoyance of receiving email advertisements over the phone, CheapTalk will structure the service to provide value to the consumer. In addition to informing the consumer about the product, the email advertising will provide the consumer with an economic incentive, such as a coupon, to purchase the product. In addition to email advertising, CheapTalk will also bundle free content such as news stories, stock market updates and sports scores. A subscriber can either choose to pull the information by dialing a pre-programmed number, or receive periodic (i.e. hourly) updates. Consumers will be able to specify from which CheapTalk advertisers they prefer to receive advertisements. In sum, subscribers will also receive a news service in addition to the email advertisements.

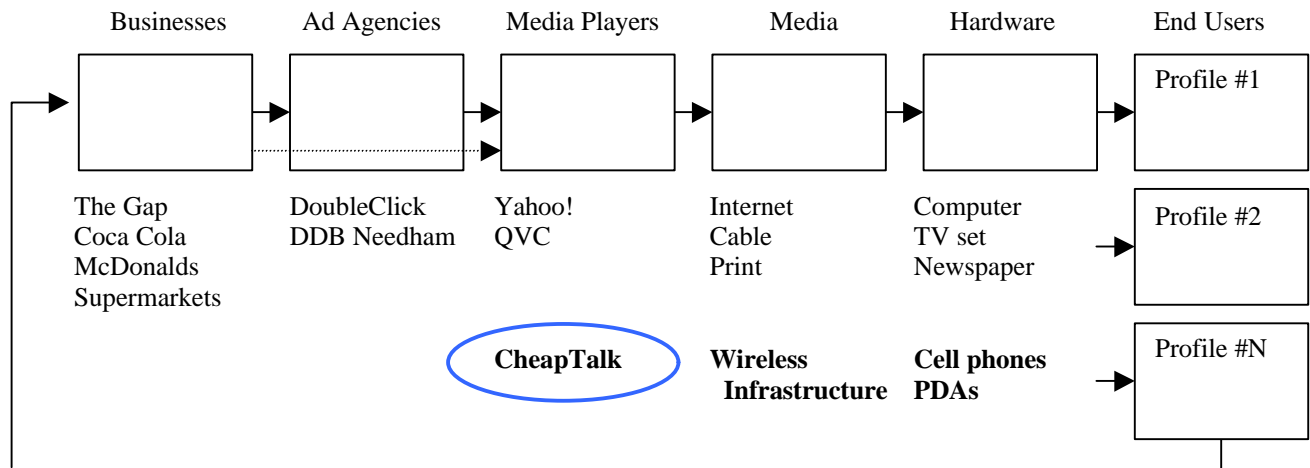
Scenarios with the CheapTalk Solution

Driving over at lunchtime to visit his daughter Chelsea at Stanford, Bill receives an ad on his cellular phone to visit his beloved McDonald's that happens to be at the next intersection. Knowing from the user profile that Mr. President likes Big Macs and Super Size Fries, the ad generously offers a free Coke "air coupon" to lure him in. Feeling his hunger and recognizing the convenience, Bill quickly directs his driver to go through the drive-thru.

Cambridge Wine & Spirits overstocks with Budweiser. To clear out the back room to make way for new inventory arriving that day, the owner decides to liquidate the beer and sell it through a 50% discount promotion. An ad is sent out to all cellular phones subscribed to "beverage promotions" as they enter the one-mile radius of the store during business hours. Not only does the owner clean out the stock, cross selling of the other items make him a profit. Furthermore, people who are "regular beverage buyers" came and learned about his store, which generates future sales.

How Will CheapTalk Make Money?

CheapTalk will profit from creating this new advertising channel by being the link between merchants with large advertising budgets and target consumers with money to spend on products. As businesses will have a new real-time, location-based advertising medium and gain the flexibility to communicate promotion items and target specific consumer profiles, CheapTalk will charge businesses for each message sent to each subscriber. This advertising revenue model is similar to the Yahoo! model.



In addition to the advertising revenue, CSPs will pay CheapTalk annual license fees and monthly service fee for the expanded consumer base and differentiated service offerings.

Financials

Based on just the US advertising market, CheapTalk has the potential of creating a \$100 million market by year 4. Growing from 1 message per day per subscriber at \$0.006 per message (much cheaper than direct mail) to 4

messages per day at \$0.022 per message (still much cheaper than direct mail)¹, CheapTalk can grow in revenue from \$0.1 million to \$174 million by Year 4. We estimate operating margins at 10% growing to 25%. CheapTalk will require startup capital of \$15 million over the first two years.

	1998	1999	2000	2001
US Digital Subscribers	8,000,000	16,000,000	32,000,000	55,000,000
Market Participation	1%	2%	5%	10%
Target Audience	80,000	320,000	1,600,000	5,500,000
Messages per year per subscriber	360	720	1,440	1,440
Price per '000 Messages	\$6.00	\$12.00	\$20.00	\$22.00
Total Ad Revenue	\$172,800	\$2,764,800	\$46,080,000	\$174,240,000
Estimated Operating Margin	10%	15%	20%	25%
Estimated Operating Profit	\$17,280	\$414,720	\$9,216,000	\$43,560,000

Technology

By year 2001, the Phase II FCC E-911 mandate will take effect to require cellular service operators to pinpoint the location of emergency calls within 125 meters at least 67% of the time. Many network operators have chosen to partner with third party vendors in finding their solutions. True-Position is one of the forerunners in deploying time differential to locate cellular phones. It makes sense for the network operators to take a step further in locating the phones when cellular phones perform periodic registration and updates. Either third party receivers can be installed in the cell sites or the functionalities can be built into the infrastructure by equipment manufacturers like Nortel, Motorola, Lucent, etc.

Location information can also be provided by the GPS receivers that are being integrated and implemented inside vehicles. The installed mobile phones, while aided by GPS receivers, will have very accurate location data. In the future, it is also possible that handset manufacturers integrate GPS on the same chipset to make cellular phones capable of giving driver directions, etc.

In terms of technology, the cellular service providers need to modify their network design and software to collect all the registration updates sent by the phones and relay the data to the CheapTalk server either housed in the network operator's switching center or via dedicated private line. The server will have a database of all user profile and preferences. Software will be developed to analyze the location information and match against the database to decide when appropriate advertising messages will be sent. The messages will then be sent over the SMS (Short Messaging Service) as a text page or email. The SMS message is sent over the signaling channel which does not interfere with user's voice channel. This is a very low cost transmission for the cellular service providers. All digital cellular system, regardless of air interface technologies, have this feature.

In addition, there will be a web site which allows the subscribers to update their profiles and for the ad placers to change their advertisement and promotions. This will be connected and integrated to the CheapTalk server to ensure the real time integrity of CheapTalk's services.

Development Plan

Sales & Marketing

Because CheapTalk will initially partner with large ad agencies, critical mass can be achieved from these ad agencies existing customers who are willing to test this new advertising channel. Subsequent customers will be smaller local retailers and merchants. Collaborate marketing with cellular service providers who would like to promote this differentiated service will lower marketing cost. The size of the sales force will depend on the scale and

¹ This pricing model assumes a penetration-strategy. Because we are launching a new medium, CheapTalk will entice advertisers through a low price. As efficacy of the medium is proven over time, the ad cost can reflect the truer economic value of the format.

success of the program. Responsibilities of sales and marketing include educating potential customers and helping existing customers maximize yield by tailoring the scale and scope of ad messages.

Development Team

Four full time software engineers will be required to design new features and maintain the web site for smooth operations. Technical support personnel will work with the cellular service providers to manage data transmission and database management.

Administrative

Billing can be outsourced with cellular operator's billing vendor. Monthly bills will be sent to ad agencies representing major clients and small retail merchants. The cellular operators will be paid by number of messages sent though CheapTalk plans to charge the cellular operators annual license fee and monthly service fees

CheapTalk's Competition

There are no direct competitors as CheapTalk is creating a new advertising media, much as Yahoo! created Internet and banner advertising. On first glance, it would appear that cellular service providers and large ad agencies, or even Yahoo! could decide to enter this market. However, from our analysis we concluded that cellular service providers do not have the requisite advertising expertise, nor do advertising agencies have appropriate technology expertise, to successfully compete. For example, ad agencies outsourced web-based advertising to Yahoo! rather than starting their own web sites. This unique market dynamic allows CheapTalk to become a *value-creating intermediary*. With a first mover advantage, CheapTalk can grab market share quickly and establish credibility by choosing to partner with large ad agencies. This also provides CheapTalk with negotiating leverage against CSPs. By locking up CSPs to work exclusively with us and embedding our software into their systems, CheapTalk prevents imitators from entering this newly created market.

CheapTalk Team

The CheapTalk Team is well balanced and composed of talented people from diverse backgrounds. CheapTalk is in the process of bringing on a person with advertising agency experience to round out the team.

Manish Bhatia

Manish Bhatia is a first-year Leader's for Manufacturing fellow pursuing both an MBA at the MIT Sloan School of Management and a Master's of Science in the MIT Mechanical Engineering Department. Manish's professional experience includes four years in operations with an industrial materials corporation holding positions in production management, capital project management and business software implementation. Manish will be responsible for operations.

Dave Chan

Dave is a second-year MBA at the MIT Sloan School of Management. Dave's professional experience includes business development and marketing at two on-going internet-related startups. Prior to Sloan, Dave worked in Nomura Securities, advising and financing high technology startups. David will be responsible for business development.

Eddie Cheng

Eddie is a second-year MBA student at the MIT Sloan School of Management, specializing in New Product and Venture Development. Her experience includes five years developing enterprise software at Oracle Corporation and General Magic, Inc. Last summer Eddie performed market research and analysis for Lucent Corporation in their data networking area. Eddie will be responsible for product management.

Carmen Ho

Carmen is a senior at MIT with a double specialization in Architecture and Management.

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Terry Hsiao

Terry is in the Sloan School's Management of Technology program. Terry has extensive experience in telecomm and cellular communications, and will be responsible for managing CheapTalk's strategic partnerships.

Claudia Lee

Claudia is a first-year student at the MIT Sloan School of Management. With experience in developing business strategies for telecommunications clients including cellular service providers and a global satellite concern, Claudia brings knowledge of consumer marketing issues from her educational background and from her work in consulting projects for automobile manufacturers and food & beverage companies. Claudia will be responsible for CheapTalk's strategic marketing programs.

Miguel Palacios

Miguel is a first-year student at the MIT Sloan School of Management. Prior to Sloan, Miguel worked in electronics product development for telecommunications and project management with one of the world's biggest telecommunication manufacturer consortiums. Fluent in French, Spanish and English and some German, Miguel will be responsible for CheapTalk's expansion into Europe and Latin America.