

Capitol Hound

Business plan

August 6, 2013

Another experiment by
reesenewsLAB

Contents

Rationale.....	2
Product description	4
Market information.....	6
Costs.....	9
Revenue	12
Profit.....	14
Recommendations.....	17
Who are we?.....	18

Rationale

In North Carolina, there is a market of about 30,000 lawyers, lobbyists, and news organizations [1] who must keep up-to-date with floor sessions and committee meetings within the North Carolina General Assembly (NCGA). This is accomplished usually through attending sessions in the N.C. General Assembly building on Jones Street in Raleigh. For individuals and organizations with time and travel constraints, there is an inherent challenge in having to be present at all meetings to keep up with all that is said in the N.C. General Assembly.

There are currently three methods of overcoming this challenge: (1) Listening to hours of audio recordings of N.C. General Assembly sessions made available through the N.C. General Assembly website¹ or Voter Radio², (2) reading second-hand analysis of only written legislation, for example in the NC Insider³, or (3) hiring assistants to attend meetings and take notes, as many lobbyists in N.C. do today.

Capitol Hound is a product meant to alleviate some of these challenges and provide a reliable, powerful, contextually based solution.

Capitol Hound is an online searchable audio archive and alert system for N.C. General Assembly sessions and committee meetings. Using audio transcription services, Capitol Hound makes hours of audio from the General Assembly searchable by text query, transcribing the exact words spoken in a session or meeting. Users of Capitol Hound input word queries into a search box that then returns results of when and where those words were spoken along with the audio segment in which they appear. Capitol Hound can also send email alerts when audio containing words that a customer subscribes to are found, with links to the exact moment the keyword is mentioned on the floor.

This searchability provide two services: The first is an extensive and navigable archive of N.C. General Assembly audio files, and the second is a customizable alert system for new N.C. General Assembly audio recordings. Customers subscribe to keywords and receive notifications via email whenever those are spoken in the General Assembly. This email contains links to the audio file in question, allowing the customer to listen in on the arguments, debates, and conversations around the keywords.

¹ Official NC General Assembly website: <http://www.ncleg.net/>

² Voter Radio website: <http://voterradio.com/>

³ NC Insider website: <http://www.ncinsider.com/>

Other states, for example Illinois^{4,5} and Connecticut,^{6,7} similarly offer transcripts of legislative sessions online to provide public record. However, these states do not provide direct searching of these files, nor do they offer a keyword alert system for incoming transcriptions. Reese News Lab intends to use Capitol Hound to provide this higher level of accessibility by offering searchability and alerts on up-to-date information within the N.C. General Assembly

⁴ Illinois General Assembly House transcripts: <http://www.ilga.gov/house/transcripts/>

⁵ Illinois General Assembly Senate transcripts <http://www.ilga.gov/senate/transcripts/>

⁶ Connecticut General Assembly House transcripts:

http://www.cga.ct.gov/asp/menu/ClerkDocList.ASP?house=H&doc_type=trn

⁷ Connecticut General Assembly House transcripts:

http://www.cga.ct.gov/asp/menu/ClerkDocList.ASP?house=S&doc_type=trn

Product description

Capitol Hound is a web service that takes audio recordings from the N.C. General Assembly and makes them searchable, allowing customers to receive alerts and conduct pinpointed research. Customers of Capitol Hound will log into their personal accounts on the Capitol Hound website, where they will then be able to enter search terms for words or phrases that may have been spoken within the NCGA audio files. Customers will receive results of files that contain the direct quote in the transcript from the query search. Customers can also browse for specific audio files. For example, a customer would be able to review an audio file from January 1, 2013 or to look back through the available recordings through 2009. Customers can also subscribe to alerts from Capitol Hound, receiving automatic email messages when a subscribed user-selected word is recognized in an incoming audio file by the Capitol Hound system.

This product is targeted toward three specific groups:

1. Lobbyists - Primary market

A lobbyist has the responsibility of knowing the goings-on within the legislature in ways that could possibly affect his or her clientele. Capitol Hound aims to relieve the issue of accessibility to the legislature for lobbyists no matter where they are: If a lobbyist in N.C. is too far away to attend a session, or if multiple meetings are taking place that the lobbyist is responsible for attending, Capitol Hound can be used to fulfill their lobbying duties. Capitol Hound ensures that these lobbyists are not missing even the smallest comment that could be said that may affect a client. The Capitol Hound archive also allows lobbyists to stay informed on the N.C. General Assembly in between yearly sessions, or it may be used as a fact-checker for notes or observations made in the past.

2. Lawyers

Lawyers need the conversations involved in creating the bills to argue legislative intent, or the reasoning behind the wording in a bill, in court. Currently, the only way lawyers might examine statements made in an N.C. General Assembly meeting is by listening to the lengthy audio file of a meeting once it becomes available. Capitol Hound allows lawyers to directly search through these large files, scanning the archives for relevant discussions that could help them prove their point in court. This is especially useful for lawyers specializing in examining legislative intent, such as those within appellate law⁸.

⁸ That is, law handling cases on appeal, including but not limited to state and federal taxation, corporate law, telecommunications, constitutional law, civil rights, and intellectual property.

3. Small News Organizations

Size constraints of these organizations often do not allow them to have journalists meant to specifically cover N.C. legislation. Even if they do, many smaller news organizations in N.C. are too far from Raleigh for political reporters to be useful or practical. Capitol Hound opens the door for smaller news organizations to focus on the NCGA by allowing these organizations to keep up-to-date with the General Assembly without necessarily traveling to Raleigh or employing a new reporter. Because Capitol Hound can provide information on the N.C. General Assembly directly from the source this means that these organizations will not have to rely on outside sources to analyze N.C. General Assembly events for them. The Capitol Hound archive also offers a useful resource for journalistic research on past issues, which can be helpful for smaller organizations and even larger organizations.

Market information

As stated previously, there are three potential markets for Capitol Hound: Lobbyists, lawyers and small news organizations. Each of these markets are tied to N.C. politics, or are heavily involved with the N.C. General Assembly. These markets also have the potential to expand to the national level with the amount of attention N.C. politics has attracted in recent months. However, for the purposes of immediate need and relevance, this market will be defined explicitly to exist only on the state level.

Looking primarily at North Carolina, our market reads as follows:

Lobbyists

According to the databases provided by the N.C. Secretary of State's office⁹, there are 883 active lobbyists who participate in N.C. lawmaking. Of those, there are 87 legislative liaisons, 6 local government liaisons, 790 lobbyists and 920 principals working in N.C. Lobbyists who work solely for a principal company and those who represent many companies/organizations as a consultant will be able to use Capitol Hound to keep track of N.C. General Assembly issues that are pertinent to their employer(s). This also includes legislative liaisons and local government liaisons who represent government entities in the N.C. General Assembly.

Lawyers

According to Martindale-Hubbard Law Directory¹⁰, a legal information source provided by LexisNexis, there are over 26,000 lawyers in various fields listed in N.C. They are also among the most valuable markets for Capitol Hound because of their need to understand specific wording of legislation in order to defend their clients. Because the market value of lobbyists is particularly dependent on the addition of alerts to the Capitol Hound system, if Capitol Hound was unable to support the alert service, lawyers would then become the most valuable market for the product. However, because of the projected alert system of Capitol Hound, lobbyists are most likely to be the most valuable market to pursue.

Small News Organizations

According to the comprehensive list of community newspapers in the U.S., there are about 300 community news organizations in North Carolina¹¹. Assuming that each of these small news organizations has about two reporters on staff that makes for about

⁹ N.C. Secretary of State office website: <http://www.secretary.state.nc.us/lobbyists/directory.aspx>

¹⁰ Martindale-Hubbard online: <http://www.martindale.com/Find-Lawyers-and-Law-Firms.aspx>

¹¹ Source: 2013 Editor and Publisher Newspaper Data Book, Duncan McIntosh Co., Inc., 2013

600 small news journalists. Size, budget and time constraints often prevent these news organizations from hiring reporters to cover the N.C. General Assembly. Even if they do have a political reporter, many small news organizations are too far away to regularly cover the N.C. General Assembly. Currently, these organizations gather their N.C. General Assembly coverage from written legislation and outside reports on sessions and meetings. Capitol Hound provides these organizations unfiltered, direct access to N.C. General Assembly meetings without ever having to leave the newsroom.

These markets will be acquired by a multi-pronged marketing approach that will incorporate search engine optimization, a strong social media presence, online advertising, print advertising, and promotional events and products. (See Capitol Hound Marketing Plan for more information.) We will also offer free, seven-day trials with access to the archives and sample alerts.

This marketing plan aims to target each market group, especially those with whom Capitol Hound provides a link to the General Assembly that is not otherwise made. As stated previously, for many lobbyists, lawyers, news organizations, and other groups in North Carolina, the only way to find topics of interest inside N.C. General Assembly audio recordings is to listen to the hours of audio, or to receive second-hand analysis of written legislation. Capitol Hound fills a "void" in the connection to the N.C. General Assembly, not only allowing customers to directly search within audio files, but also in providing alerts to customers for staying up-to-date.

There are already services available that provide access to N.C. political insider information, and to N.C. General Assembly audio itself. For example, both the official N.C. General Assembly website and Voter Radio (an organization powered by the N.C. Center of Voter Education) both contain archives of past session recordings going back to 2009. N.C. Insider is another source that provides detailed analysis of written legislation being discussed, amended, and passed within the General Assembly. If any of these markets wished to find information about the N.C. General Assembly or about N.C. politics, these sources already partly fulfill that need.

However, Capitol Hound offers things these services do not. Capitol Hound allows customers to navigate audio directly, without listening all the way through. Capitol Hound does not analyze audio content to provide summaries; it provides the raw, unedited audio files from the Assembly. Capitol Hound is an archive of past recordings, in case a customer cannot find a particular audio piece on another site. Capitol Hound sends timely alerts to customers once a term of interest is recognized in a new audio file. Customers of Capitol Hound get something they cannot receive anywhere else:

Reliable, raw, contextually-based information direct from “the horse’s mouth” as it were -- direct access and navigability of N.C. General Assembly audio sessions from the House, Senate, and committee meetings. Capitol Hound fulfills a need that no other product in North Carolina can claim to match, and the viability for Capitol Hound rests therein.

Costs

The price of audio processing makes up the bulk of Capitol Hound costs. There are several options to consider for creating searchable audio, each with their own costs and time constraints for generating output. In order to provide searchability, audio recordings must first be transcribed into text. There are four different options to consider for this:

1. inCus by GreenButton - GreenButton is a vendor of various cloud-based software solutions. The inCus software, powered by the MAVIS audio indexing software by Microsoft, is a tool that provides search and discovery of large stockpiles of media content¹². The inCus software scans audio tracks and delivers a searchable database for searching through media content by text query, with each "instance" of the query highlighted in the search results. A demo of the service is available at http://www.msravs.com/audiosearch_demo/default.aspx.

2. Typingpool - Typingpool¹³ is a crowd-sourcing transcription program developed by writer Ryan Tate. Typingpool "chops" audio files into manageable clips and sends those clips to Amazon's job marketplace Mechanical Turk¹⁴ for transcription. Mechanical Turk users transcribe the audio pieces, submit them for approval, and after approval each piece is placed in order by the Typingpool software to create a full transcription.

3. Manual transcription - Raw transcripts of audio can be achieved through manual transcription, usually conducted through a team of several people. These individuals listen to audio files, typing each word spoken in the recording, to achieve a text version of the audio file. This process can be done in-house by paid transcribers, or it can be outsourced to any third-party transcription service, e.g. Audio Transcription Services¹⁵, TranscribeMe¹⁶, CastingWords¹⁷.

4. Stenographer transcription - Professional stenographers (also known as court reporters) use machine shorthand techniques and other equipment to provide official transcripts of official proceedings, such as court hearings. Some legislative offices use stenographers to transcribe meetings as they happen, posting the professionally made transcripts after completion, e.g. the Illinois General Assembly.

¹² inCus description: <http://www.greenbutton.com/Applications/Incus>

¹³ Typingpool official website: <http://tumblr.ryantate.com>

¹⁴ Mechanical Turk official website: <https://www.mturk.com/mturk>

¹⁵ Official website: <http://www.audiotranscription.org/>

¹⁶ Official website: <https://transcribeme.com/>

¹⁷ Official website: <http://castingwords.com/>

Costs of audio processing are more tangible when N.C. General Assembly long and short sessions are considered. N.C. General Assembly long sessions typically last 6 months, or 180 days, beginning in the January of each odd-numbered year. These long sessions adjourn to reconvene in a shorter session the following even-numbered year. These short sessions usually last for roughly 7 weeks, or about 50 days.

Assuming that an average of 7 hours of audio are produced by the N.C. General Assembly in a day, there are:

180 x 7 = **1,260** hours of audio in each **N.C. General Assembly long session** and
 50 x 7 = **350** hours of audio in each **N.C. General Assembly short session**.

Given that recordings from the N.C. General Assembly House, Senate, and committee meetings date back to 2008, and that 3 odd-numbered years and 3 even-numbered years lie between 2008 and 2013, there will be an estimated **4,830** hours of total audio from the N.C. General Assembly available at the end of 2013. These audio files will have to be processed in the first year of Capitol Hound to create a searchable archive.

The following tables present the costs for the Capitol Hound system with each audio processing service, for both the N.C. General Assembly long and short session. Additional costs, including hosting, salaries for Capitol Hound staff (1 manager and 2 part-time workers), and advertising are also taken into account.

Long session

	inCus	Typingpool	Manual transcription	Stenographers
Rate/hour	\$15	\$24	\$60	\$360
Hours	840	840	840	840
Processing total	\$12,600	\$20,160	\$50,400	\$302,400
Hosting	\$1,000	\$1,000	\$1,000	\$1,000
Manager (yearly salary)	\$40,000	\$40,000	\$40,000	\$40,000
Tech support (2 part-time workers, yearly salary combined)	\$40,000	\$40,000	\$40,000	\$40,000
Advertising	\$25,000	\$25,000	\$25,000	\$25,000
TOTAL	\$118,600	\$126,160	\$156,400	\$408,400

Short session

	inCus	Typingpool	Manual transcription	Stenographers
Rate/hour	\$15	\$24	\$60	\$360
Hours	280	280	280	280
Processing total	\$4,200	\$6,720	\$16,800	\$100,800
Hosting	\$1,000	\$1,000	\$1,000	\$1,000
Manager (yearly salary)	\$40,000	\$40,000	\$40,000	\$40,000
Tech support (2 part-time workers, yearly salary combined)	\$40,000	\$40,000	\$40,000	\$40,000
Advertising	\$25,000	\$25,000	\$25,000	\$25,000
TOTAL	\$110,200	\$112,720	\$122,800	\$206,800

Costs for Capitol Hound clearly differentiate massively when different audio processing services are considered. As revenue and profits are discussed, these different audio processing services will continue to be compared to illustrate with differentiation as clearly as possible.

Revenue

Capitol Hound is a subscription-based service, with customers paying yearly fees for access and use to the system. Revenue for Capitol Hound will be generated by these subscriptions.

Access to the Capitol Hound archive will cost a subscription of \$750/year. This includes access to all past transcripts and access to new transcripts when they become available. Customers with access to the archive can make searches that cover all current transcripts on Capitol Hound.

Creating alerts with Capitol Hound will add an additional subscription of \$100/year, for a total of \$850/year. Customers will be able to create email alerts for words of their choice, with alerts being sent when those words are recognized in an incoming transcript. These alerts can be sent immediately, once a day, or once a week, depending on the customer's preference. Customers may make as many alerts as they see fit. There is also the opportunity of a \$20 day pass if Capitol Hound were to continue, but this possibility is not included in our calculations.

The following table presents revenue plans for Capitol Hound over the first five years of operation, for both pricing plans of archives (\$750/year) and of archives/alerts (\$850/year). Predicted customers are split among their respective market groups (lawyers, lobbyists, and news organizations).

	Year 1	Year 2	Year 3	Year 4	Year 5
Archives					
Lawyers	50	120	200	280	350
Lobbyists	15	35	50	75	90
News Orgs	8	16	25	35	45
Total Subs	73	171	275	390	485
Revenue	\$54,750	\$128,250	\$206,250	\$292,500	\$363,750

Continued on next page

	Year 1	Year 2	Year 3	Year 4	Year 5
Archives/Alerts					
Lawyers	0	0	0	0	0
Lobbyists	25	50	100	175	250
News Orgs	10	20	30	40	50
Total Subs	35	70	130	215	300
Revenue	\$29,750	\$59,500	\$110,500	\$182,750	\$255,000
Summary					
Lawyers	50	120	200	280	350
% market	0.2%	0.4%	0.7%	1.0%	1.3%
Lobbyists	40	85	150	250	340
% market	4.5%	9.6%	17.0%	28.3%	38.5%
News Orgs	18	36	55	75	95
% market	3.0%	6.0%	9.2%	12.5%	15.8%
TOTAL	\$84,500	\$187,750	\$316,750	\$475,250	\$618,750

Profit

Profit from Capitol Hound will be generated when revenue plans predicted above outweigh costs of operation.

The following tables demonstrates profit plans over the first five years of Capitol Hound operation. Each audio processing service is considered to compare profit amounts. This five-year plan assumes that Capitol Hound begins operation in 2014, an even-numbered year, and therefore begins with N.C. General Assembly short-session costs (see the Short Session table under Costs above). Costs for the following years then alternate between long and short sessions of the N.C. General Assembly.

An extra \$25,000 is taken into account in the first year for general start-up costs, along with the cost of creating the 2008-13 audio archive with each audio processing service (based on hourly rate of processing and the estimated 4,830 hours of audio that make up 2008-13).

InCus

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	\$84,500	\$187,750	\$316,750	\$475,250	\$618,750
Costs	\$110,200	\$118,600	\$110,200	\$118,600	\$110,200
Start-up costs	\$40,000				
2008-13 archive costs	\$50,400				
Accumulated costs	\$200,600	\$319,200	\$429,400	\$548,000	\$658,200
Yearly Profit	-\$116,100	\$69,150	\$206,550	\$356,650	\$508,550
Total Profit	-\$116,100	-\$46,950	\$159,600	\$516,250	\$1,024,800

Continued on next page

Typingpool

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	\$84,500	\$187,750	\$316,750	\$475,250	\$618,750
Costs	\$112,720	\$126,160	\$112,720	\$126,160	\$112,720
Start-up costs	\$40,000				
2008-13 archive costs	\$80,640				
Accumulated costs	\$233,360	\$359,520	\$472,240	\$598,400	\$711,120
Yearly Profit	-\$148,860	\$61,590	\$204,030	\$349,090	\$506,030
Total Profit	-\$148,860	-\$87,270	\$116,760	\$465,850	\$971,880

Manual transcription

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	\$84,500	\$187,750	\$316,750	\$475,250	\$618,750
Costs	\$122,800	\$156,400	\$122,800	\$156,400	\$122,800
Start-up costs	\$40,000				
2008-13 archive costs	\$201,600				
Accumulated costs	\$364,400	\$520,800	\$643,600	\$800,000	\$922,800
Yearly Profit	-\$279,900	\$31,350	\$193,950	\$318,850	\$495,950
Total Profit	-\$279,900	-\$248,550	-\$54,600	\$264,250	\$760,200

Continued on next page

Stenographers

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	\$84,500	\$187,750	\$316,750	\$475,250	\$618,750
Costs	\$206,800	\$408,400	\$206,800	\$408,400	\$206,800
Start-up costs	\$40,000				
2008-13 archive costs	\$1,209,600				
Accumulated costs	\$1,456,400	\$1,846,800	\$2,071,600	\$2,480,000	\$2,686,800
Yearly Profit	-\$1,371,900	-\$220,650	-\$109,950	\$66,850	\$411,950
Total Profit	-\$1,371,900	-\$1,592,550	-\$1,482,600	-\$1,415,750	-\$1,003,800

The differentiation of profits made with each audio processing service are clearly massive. Capitol Hound will require at least 3 years of operation to generate profit at a "break-even point," and under some processing, for example by stenographers, profits are not made in the first five years of operation. These profit differentiations will be considered for recommending an audio processing service to use for Capitol Hound.

Recommendations

Based on the level of accuracy and dependability of human-based transcription, the recommendation for audio transcription is **Typingpool**. This is best option for providing cost-effective transcriptions along with accurate, reliable transcriptions of N.C General Assembly audio. Other services for human-based transcription, such as manual transcription or professional stenographers, are too costly to be useful, and machine-based transcription, such as inCus, does not currently offer the level of accuracy needed for an alert system. This is why Typingpool is the appropriate choice for Capitol Hound.

Furthermore, Capitol Hound, though viable as a standalone business, has the greatest chance for success as a compliment to an existing organization or database such as LexisNexis, West Law, NC Insider or even a part of the NC Voter Education Center. It could also succeed as a part of government transparency initiatives such as the Sunlight Foundation. Even simply the data stored within Capitol Hound is extremely useful to organizations regardless of whether or not the service is used as originally intended. In this way the marketing tactics and business opportunities moving forward with Capitol Hound are malleable; however, the best recommendation is to continue making the service as technically capable as possible so as to maintain it's information's worth and use.

Who are we?

Annie Daniel is a senior at the University of North Carolina at Chapel Hill with a double major in multimedia journalism and political science. She is a web developer who works primarily with HTML, CSS and JavaScript. She will also be a member of the Student Newsroom at the Online News Association Conference and Awards Banquet in the fall.

This is her first experiment at Reese News Lab. She was initially attracted to the freedom that comes with an innovative digital media lab to learn new skills and meet other young journalists in the field.

Daniel Pshock is a senior information science major with a linguistics minor at the University of North Carolina in Chapel Hill. His background is primarily in user-centered design of systems and interfaces, where he has worked in both web and mobile platforms. He is interested in designing user experiences and engagement, and has served as the webmaster for a major news organization for the past year, where he has received multiple awards from the North Carolina Press Association.

Development of media products on a mobile platform is what led Daniel to the Reese News Lab.

Nikki Mandell is a junior at the University of North Carolina at Chapel Hill with a double major in journalism (electronic media) and political science. She interned at an NBC affiliate station during the summer of 2012 in Norfolk, Virginia, and is currently the web editor for The Hill, UNC-CH's non-partisan political review.

Her long-standing passion for media and storytelling has recently fueled her to better understand where the field of journalism is headed, something that led her to the Reese News Lab.

Lilly Knoepp senior religious studies and political science double major at the University of North Carolina at Chapel Hill. Lilly is from the mountains of Franklin, North Carolina and has worked in the Reese News Lab since 2012 on the Reese News site, the WhichWayNC project, the STEMwire project and now on the Capitol Hound Summer Start-up project.

She hopes to continue at Reese after she returns from studying abroad in Istanbul, Turkey for the fall semester and then pursue a career writing about politics and religion following her graduation in 2014.