

PLACESPEAK BUSINESS PLAN

by

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Abstract

PlaceSpeak is a new product in the consultation software industry, which is an emerging sector with many competitors. This project reviews potential markets for the product and the product's competitive advantages. While confirming that PlaceSpeak addresses a gap in the current consultation market, the research identifies some of the risks in the market and suggests several mitigation strategies. The project also highlights gaps in the current product design and implementation, and suggests possible strategies to fill these gaps prior to commercialization.

Keywords: online consultation, civic engagement, e-government, geo-verification, geo-location, Web 2.0, market research

Executive Summary

PlaceSpeak is a product developed to address a significant gap in the consultation software industry: the lack of location-aware tools that can connect people and issues to place. The founder has assembled a group of subject matter experts in civic engagement from government, industry and academia – including Mike Harcourt, former Premier of BC – as advisors. Bootstrapping development from personal equity and tech start-up funding agencies, the product has evolved from concept to beta trials at customer sites in less than a year.

This project reviews the consultation software industry, potential markets for the product and the product's competitive advantages. While confirming that PlaceSpeak addresses a gap in the current consultation market, the research identifies some of the risks in the market and suggests several mitigation strategies. The project also highlights gaps in the current product design and implementation, and suggests possible strategies to fill these gaps prior to commercialization. Although preliminary financial projections have been prepared by PlaceSpeak's acting CFO, this analysis has been omitted from the project as it will be reviewed in more detail in a subsequent iteration of this document. This research is intended to provide the sponsor a comprehensive analysis of the product and business model for internal review among the team and advisory board. Portions of the report will be integrated into a more focused business plan that will be circulated among potential angel investors.

Current methodologies in the consultation industry are costly to implement and return little value relative to cost. Public meetings are often hijacked by narrow-focus interest groups and phone/mail surveys are becoming less effective as fewer and fewer people are willing to participate. A plethora of online consultation tools exist, but most offer little more than simple survey capabilities, with no user authentication or location-based context. Governments are under increasing funding constraints, and are seeking more effective methods of communication with citizens and other stakeholders. In the consultation market, PlaceSpeak thus provides a platform for local citizens to connect with issues that matter in their community, and for local governments and other agencies to collect feedback that is authentic and representative of the local community.

The product consists of a web-based platform for consultation, providing a hosted website for customer organizations (“proponents”) to create and manage discussion topics linked to location, and end-users (“consumers”) to register with their home address and participate in discussions that are relevant to where they live. PlaceSpeak will work directly with governments and other agencies to provide online consultation tools with geo-verification and geo-location capabilities. Customers will pay a subscription fee to use the website. Partners that wish to embed or integrate PlaceSpeak’s capabilities in their own websites will have the option to use an Application Programming Interface (API) that bundles the core capabilities of the product into a published web service. Consumers will not be required to pay to use the product.

Gartner estimates the social software market segment in North America will be worth close to \$1 billion in the next 1-2 years. PlaceSpeak will focus on the local government market and other public and private sector organizations that currently engage in consultation with stakeholders. There are many web-based solutions tools available in this space, none with any significant market share and none with capabilities that match PlaceSpeak’s competitive advantage in geo-verification and geo-location functionality.

PlaceSpeak’s competitive advantage resides with its capability to verify consumer addresses and link registered consumers to geo-referenced consultation issues. Customers can introduce topics, gather feedback and monitor discussions with confidence that the participants live within the local community, and provide participants with assurance that a network of consumers with similar concerns and interests share their involvement. The project reviews the functionality that has been implemented to-date, identifying gaps and potential enhancements to be prioritized in the product planning process.

The revenue model is based on three key components. First, customers will pay subscription fees to access and manage the Software as a Service (SaaS) consultation platform for their own use. Second, when registered consumers connect to issues or topics, a per user transaction fee will be charged to the customer for use of the geo-verification service. Third, PlaceSpeak’s core functions will be published as an API for use by third party commercial organizations that wish to integrate PlaceSpeak’s capabilities in their own solution.

The founding team has experience in successful Web 2.0 start-ups, with the key founder having created and sold MovieSet.com, a film industry news site, in addition to team members coming from senior roles in multi-national technology companies and the geo-location/mapping industry. Advisory members have years of experience in government, the real estate industry and

research and development (R&D). The team is well-positioned from both a business and technical standpoint to bring the product to market.

PlaceSpeak is seeking \$250,000 in angel investment to complete development of the product and provide bridge financing through to the commercialization phase. This funding will be used to fill key roles in software development and sales and to help fund marketing efforts. At present, the management team are focusing their efforts on eliciting investor interest, meeting with potential proponents to establish revenue-generating trials, and communicating with potential partners.

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Glossary

- 311 Telephone number reserved for non-emergency access to local governments in North America. The system is commonly used by citizens to report service-related issues to their local authority.
- API An **Application Programming Interface** defines the set of rules and specifications a software program provides that enable interaction with other software components.
- CRM **Customer Relationship Management** describes the practice of managing customer-related activities using integrated software and business processes.
- GIS **Geographic Information System** is a software program designed to manage, view, query and analyze spatially-relevant information.
- G2C **Government to Citizen** is a type of service delivery involving communication and information dissemination between government agencies and the public.
- Mashup A **mashup** is a web page or application that integrates data or functionality from multiple external sources to create a new functional tool or service.
- SaaS **Software as a Service** is a software delivery model in which software is deployed on a centralized infrastructure and accessed via the internet.

1: Introduction

PlaceSpeak.com is a software product and company created by New City Ventures, Inc., a firm based out of Vancouver, BC, Canada. The company was created in 2010 to develop and market an online platform for community consultation, primarily in the G2C market (Government to Citizen), with potential application to a number of additional market segments. Through research and discussions with subject matter experts, the founder has identified a gap in current consultation methodologies, which PlaceSpeak intends to address.

There has been considerable research into the increased demand for e-government services and the role of the internet in providing both an alternate delivery channel for services and a platform for improving interaction between government and citizens (Marche & McNiven, 2003, Macnamara, Bamford & Betts, 2009). The two main benefits of an e-government model revolved around an “increased operational efficiency by reducing costs and increasing productivity” and the opportunity to provide “better quality of services” (Gil-Garcia & Pardo, 2005, p. 188). Researchers have also examined how the widespread adoption of social networking tools assists in promoting civic engagement and political participation (de Zúñiga & Valenzuela, 2011). PlaceSpeak was founded to capitalize on the business opportunities in the e-government sector and to fulfil the civic role identified by the research into civic engagement.

In its most recent activity, the company has created a prototype application that is now undergoing technology validation at a number of local government sites in the Lower Mainland and the Sunshine Coast. These sites include multiple departments at the City of Vancouver, the Town of Gibson’s and the Kit’s Point Residents Association. To move forward, the company needs to secure angel investment to complete product development and bring PlaceSpeak to the market.

The purpose of this research is to review the consultation software industry, the potential market for PlaceSpeak and to identify the best approaches for moving to the commercialization stage and beyond. To accomplish the goals of the research, the project evaluates PlaceSpeak’s innovations in relation to its competitors, determining the mechanisms required to protect and enhance those innovations so as to generate value for the firm and its shareholders. The project uses a number of conceptual frameworks to analyze PlaceSpeak’s business model, including

network effects and value networks, and analyzes the potential impacts to profitability using Porter's five forces of competition model.

2: PlaceSpeak Background and Overview

This section provides an overview of the company, the market that PlaceSpeak will be operating in, and the unique value proposition offered by the product. This information provides some context for the discussion that follows in Sections 3 and 5 on the consultation software industry and the competitors, as well as the analysis of PlaceSpeak’s competitive advantage in Section 4 Product and Services.

2.1 The Company

PlaceSpeak.com was conceived in 2010 as a platform that would transform the civic engagement process through the accomplishment of three main objectives:

1. Connecting consumers’ digital identity to the real world through authenticating their residential addresses.
2. Transforming the way people in neighbourhoods interact with location-based issues by amplifying conversations relative to proximity.
3. Advancing the public consultation process by creating an online platform that enables and encourages inclusive, informed participation, policy development and decision-making.

The company founder, Colleen Hardwick, has a background that includes urban planning and Web 2.0 start-ups. Based on her knowledge and research into the community planning process, and discussions with subject matter experts, it becomes clear that existing tools and processes for civic engagement suffer from a number of inadequacies, and that a platform that combines the network benefits of social media with a location-based framework could address a gap in the market.

The name “PlaceSpeak” was chosen after several earlier concepts were considered and discarded for either being too similar to other products or not communicating the essential concept. The logo was created through a crowdsourcing contest on www.choosa.net, in which sixty-one designs were contributed by nineteen different graphic designers. Combining the words “Place” and “Speak” identifies the product with the consultation environment in conjunction with

the location-based approach that differentiates the product from its competition. From a branding perspective, there is little confusion about what the product represents, nor is it difficult to conceptualize or explain to proponents and consumers. The logo communicates the same message with a simple representation of a speaking balloon surrounding a house, reinforcing the message that the product is about people communicating about issues that are relevant to where they live.



Figure 1 PlaceSpeak Logo

By bootstrapping development of the platform from personal equity in addition to internships funded through NRC-IRAP, MITACS and SBIP, the company has moved quickly from initial conceptual design in September 2010 through several iterations. The current version is undergoing technology validation trials at five customer sites in the Lower Mainland and Sunshine Coast. The product commercial release target is Fall 2011.

Through personal and professional contacts, the founder has assembled a board of directors and advisory board that contain considerable depth of experience in government, business and academia. The chair of the board is Mike Harcourt, former mayor of Vancouver and Premier of BC. Other members have extensive experience in local government and the commercial real estate sector.

2.2 Market Overview

PlaceSpeak is targeted primarily at local governments, public agencies, regulated private sector firms and other organizations that are engaged in activities with a location-based component that require or can benefit from stakeholder input. From the information published on their websites, PlaceSpeak's competitors derive most of their revenue from these vertical segments, although in most cases the location aspect is either ignored or only addressed superficially. Research indicates that competitor solutions are currently used by public sector organizations in the UK, Europe, North America and Australia. Conventional consultation methods, which include public hearings, polls and surveys (managed via telephone, personal

interviews or through the mail), focus groups and open houses, are still widely used in the markets where online solutions are gaining a foothold. However, polling firms themselves have noted the cost and decreasing effectiveness of telephone surveys and the increasing use of online consultation methods with accuracy comparable to telephone survey methodologies. This research cites the recent UK election as an example where online consultation tools were implemented successfully alongside conventional methods (Abacus Data, 2011). Based on PlaceSpeak's discussions with local governments in the Lower Mainland, from a customer perspective, online consultation software is regarded as a tool to augment existing methods for public consultation, rather than displacing those methods. This consideration is important in determining the positioning of the product in terms of both customers and strategic partnerships.

2.3 Value Proposition

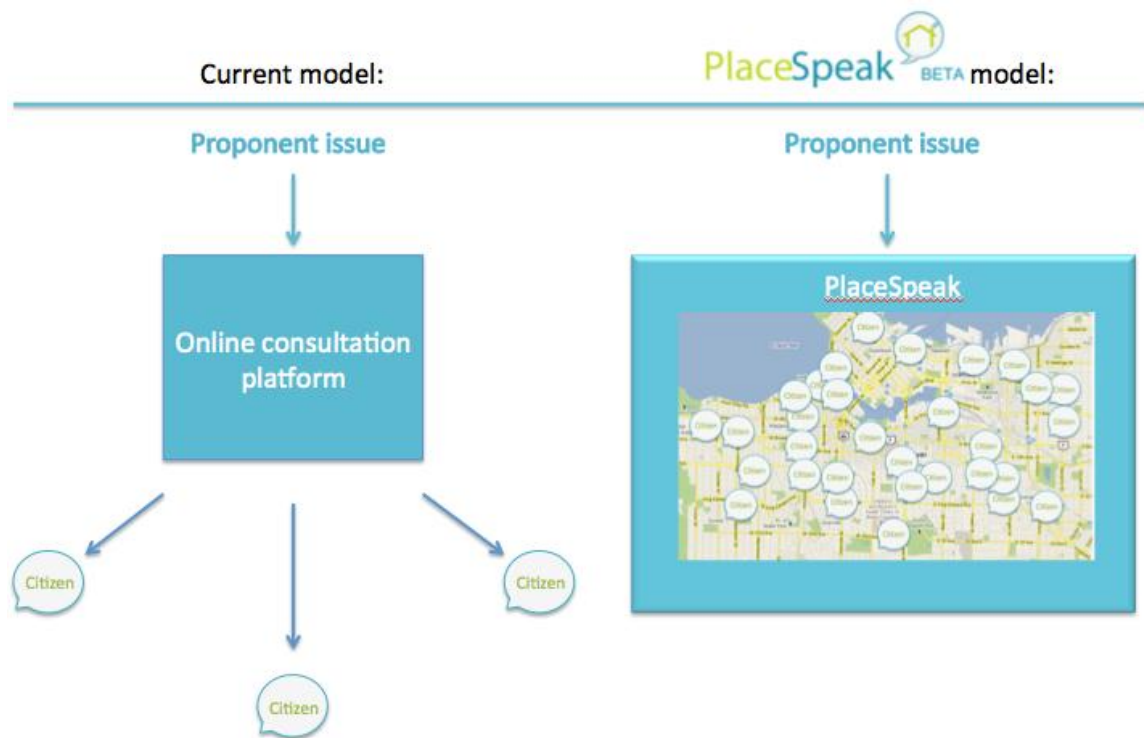
PlaceSpeak's unique value proposition is the ability to verify participant addresses and link verified participants by geographic location to issues of relevance. These features of the product are unique among PlaceSpeak's competitors in the online consultation software industry. PlaceSpeak will benefit customers by generating more value from interactions with public stakeholders through its ability to support authentic community involvement.

The effectiveness of conventional methods of public consultation is undermined by lack of confidence in the representativeness of the participants and hence the credibility of the information and opinions collected is often not assured (Abelson, Forest, Eyles, Smith, Martin & Gauvin, 2001). Current online tools have not addressed this issue, since they are unable to verify the location of registered participants, and cannot provide proponents with any understanding of participants' proximity to the issues under discussion. Consequently, proponents who seek public participation on location-based issues cannot assess or verify if participants are representative of the geographic areas where the issue has the most relevance. For example, a local government that seeks to gather feedback from residents on a proposed development cannot easily determine using conventional or online mechanisms for public consultation whether the opinions expressed are from people who will actually be impacted by that development, or make any kind of determination on the realistic effects of proximity and location. Every topic or issue is a 'one-off', permitting only anonymous, uni-directional channels of communications.

PlaceSpeak's geo-verification solution provides proponents with the capability to introduce topics, gather feedback and monitor discussions with confidence that the consumers live within the local community. The geo-verification solution also provides consumers with

assurance that a representative community with similar concerns and interests shares their involvement. Once that community has been identified, consumers and proponents can use the PlaceSpeak platform as a bi-directional interactive communication tool, broadcasting notifications to the community and engaging in interactive discussion on issues of interest. Using the out-of-the-box tools provided for administrators, new topics can be introduced and shared with the community of registered consumers.

Figure 2 PlaceSpeak's Consultation Model



Eric Ries in his Lean Startup methodology (2009) stresses the importance of validating the product concept with customers as early as possible, as it can help in identifying and resolving key risks to the business. Recognizing the importance of this strategy, PlaceSpeak obtained a grant from the National Research Council's Industrial Research Assistance Program (NRC-IRAP) to conduct technology validation of the product at customer sites through May-June 2011. PlaceSpeak is currently analyzing the data obtained from the trials and will incorporate the findings in subsequent iterations of the business plan. Based on the preliminary feedback, PlaceSpeak's geo-verification and geo-location capabilities have been acknowledged by potential customers (including municipal planning, engineering and emergency operations staff, as well as

members of the real estate community) as a significant source of differentiation from other consultation products that are currently in use. Other findings are being incorporated into the product planning and marketing strategy.

3: Consultation Software Industry

This section discusses the online consultation software industry and the role of Web 2.0 technology. The potential benefits of network effects and value networks are analyzed in the context of PlaceSpeak's strategy for growth. The chapter concludes with a description of the potential market and a discussion of relevant success factors in the consultation software industry.

3.1 Overview

Online consultation software is an internet-based tool designed for use by organizations that need to solicit stakeholder feedback on proposed policies or plans. The software provides a web-based approach for gathering public input with outcomes similar to conventional methodologies like hosted public meetings, workshops and phone surveys. While other types of collaborative web-based software like blogs, wikis and forums can perform a similar function, online consultation software products provide a focused template for managing topic presentation and discussion that aligns more closely with standard consultation methodology. The consultation software industry at present contains more than a hundred firms operating in several overlapping categories. These categories include enterprise customer relationship management (CRM), survey and polling, issue reporting ("311") and online consultation software. All categories of tools are similar in that they are used by organizations to collect public input, but they are differentiated by the content matter, function and how closely they align with standard consultation methodologies.

The explosive growth of social media, Web 2.0 and mobile applications has supported the rapid evolution of this industry, by providing the platforms for building interactive participation tools, and creating the online collaborative networks that help provide the user base. Market research into specific opportunities in the online consultation sector is not available, however Gartner Research (as cited in Boulton, 2010) estimates that the enterprise social software market, which refers to blogs, wikis, communities, forums, RSS feeds, bookmarks and other tools for communication and collaboration, will hit \$769 million in 2011 and should reach \$1 billion by 2012. Consultation software is a subset of this market, but also overlaps with other sectors, which include enterprise CRM, e-government and the surveying and polling industry.

PlaceSpeak is a unique, rich-featured platform for managing online consultations in the G2C (Government to Citizen) market, with broad application to a number of other sectors that use public consultation processes. In addition to all levels of government, public and private agencies in transportation, energy and other vertical sectors and real estate developers are examples of organizations that conduct public consultations to comply with legislative requirements and policy best practices. There are a number of firms operating in the G2C sector, providing consultation platforms for eliciting feedback and discussion around community issues. The primary delivery model for new entrants is Software as a Service (SaaS), with some existing firms providing both on-premise and SaaS solutions. The typical fee structure is a multi-tiered subscription model, segmented by functionality, with additional fees for customization and support services.

Gartner (Claps, 2010) has identified two influential trends in the industry that underpin PlaceSpeak's offering: the influence of consumer social media in the area of constituent relationship management, and increased interest in the SaaS model as a means to reduce infrastructure costs. As established CRM vendors are still developing these capabilities, the market is fluid and competitive, with many niche players involved in the early stages (Claps, 2010). E-government is another term used to describe the provision of electronic services by government agencies. There are two components to E-Government: service delivery, which includes the standard array of government functional activities delivered over the web, and digital democracy, which is the process of involving citizens in policy discussions and decisions (Schwester, 2009)

While there has been some resistance to cloud-based solutions by government due to security and reliability concerns, a survey by the non-profit Public Technology Institute in April 2010 of local government in the US found that 45% were already using cloud-hosted services, and that 19% were planning to do so in the near future. The top reasons for doing so were resource savings (staff time, maintenance and support), features and availability. The applications they were most comfortable moving to the cloud were web hosting, content delivery and collaboration software (Public Technology Institute, 2010).

Salesforce.com, one of the leading edge SaaS vendors, identifies five benefits of the subscription-based SaaS model for customers (Salesforce.com, 2011):

1. Subscription-based services prevent vendor lock-in
2. No up-front investment in IT infrastructure is required

3. Maintenance issues are minimized as everything runs on a single platform managed by the vendor
4. Reduced learning curve due to the use of common web interfaces
5. Supports continuous innovation, as vendors are able to focus on updating solutions instead of supporting a large install base of previous versions

3.2 Web 2.0 Benefits

PlaceSpeak is designed to capitalize on the benefits of the Web 2.0 model, both from a business and technical perspective. The term “Web 2.0” describes the evolution in web-based products and services that were appearing in the mid-2000’s (Shuen, 2009). Briggs (2009) characterizes Web 2.0 business models as being de-centralized, with the “locus of value creation [shifting] away from the product itself, and toward the relationships that the product [has] with the consumer and with other products” (p. 45). Tim O’Reilly first identified the core competencies of successful Web 2.0 companies in his paper “What is Web 2.0” (O’Reilly, 2009). PlaceSpeak and many of its competitors are leveraging these key competencies, which include:

- Using the web as a platform as opposed to providing packaged software, and implementing cost-effective scaling as required
- As the software tools are freely available, creating unique, hard-to-recreate datasets can be a source of competitive advantage. PlaceSpeak’s ability to attract unique networks of consumers, and support those consumers in generating unique, useful data for the proponent, is a primary method for how the product creates value for PlaceSpeak’s customer base.
- Trusting users as co-developers, by engaging in a constant iterative process to collect proponent and consumer feedback and applying the knowledge gained to refine the product and business model.
- Harnessing collective intelligence through the firm’s value network to shape the product and business model.
- Leveraging the long tail through customer self-service. Hosted delivery platforms and subscription-based pricing make this possible.
- Software above the level of a single device, demonstrated by the plethora of mobile and web-delivery platforms used by the consultation software industry. PlaceSpeak is

currently a web-based application with plans to add web service and mobile capabilities.

- Lightweight user interfaces, development models, and business models

Survey data indicates that the biggest driver for organizations implementing Web 2.0 technologies is improved communication and collaboration both internally and externally (Donston, 2008). The Web 2.0 approach provides a platform for iterative product development and experimentation that minimizes both risk and capital requirements (Shuen, 2009). As outlined in the Product Roadmap (Section 4.3), PlaceSpeak has evolved from the concept phase to site trials in little over eight months, using a combination of web-based open-source tools and freely accessible web service APIs. Applying the concept of users as co-developers, PlaceSpeak collected feedback from beta site users and technology trial participants to refine the product requirements. By the time PlaceSpeak is released, the product will have already incorporated substantial customer input.

As the building blocks for Web 2.0 products are freely available to any start-up, these low barriers to entry increase the commoditization risk, in that any tool or process can be easily copied by competitors. There may be cost advantages compared to conventional methods of consultation, as the overhead is much lower, however, between SaaS-based products in consultation software industry, the price differences are relatively minor. Consequently, it can be a challenge for firms in the consultation software industry to appropriate any value from their efforts. One of the competencies identified by O'Reilly (2009) that can enhance competitive advantage is the ability through user interaction to create unique, non-replicable datasets that have value to customers. PlaceSpeak is well positioned in this respect, in that it can add value to user interactions by collecting and storing information which proponents can use to analyze the relationship between the consumer and the content in a location-based context. The greater the number of consumers who register with the site and participate in the proponent's issues and discussions, the greater the potential value of PlaceSpeak's data represents to existing and prospective proponents. This is an example of the often-discussed network effects that generate value for Web 2.0 and social media based products.

Given the resource constraints of a Web 2.0-based startup firm like PlaceSpeak, the concepts of network effects and value networks are important from a strategy perspective, in that the firm must leverage external factors as much as possible to make an impact in the market. The next two sections explore these concepts in more detail, focusing on their relevance to PlaceSpeak.

3.2.1 Network Effects

Shuen and Sieber (2009) stress the importance of understanding the different types of network effects and how these effects influence business strategy. As PlaceSpeak's focus is to support communication between proponents and a defined group of consumers, the value of the product does not linearly increase with the number of discrete proponents. Within a large organization, however, as more business units adopt PlaceSpeak, the pool of registered consumers can potentially grow and generate more business value for the customer. For example, as more departments within a local government use PlaceSpeak to engage the public on issues specific to the business area (examples would include planning, engineering and emergency services), the pool of registered consumers for the site as a whole will grow. The proponent can tap into this network of registered consumers for future topics of interest, broadcasting notifications to the consumer base on issues relevant to the local neighbourhood, and gathering feedback on new topics that be may unrelated to the original topic that drew the consumer's interest in the first place.

Indirect effects are important too, in that the availability of complementary goods like plug-ins and supporting services will grow as the product becomes ubiquitous. Similarly, cross-network effects are likely in that the usage levels of complementary services will increase in tandem with PlaceSpeak, benefiting other networks that use those services. For example, other sectors that share an address verification service provider with PlaceSpeak would benefit from increased PlaceSpeak usage of the service, as greater uptake for the service would assist the service provider in maintaining data coverage and currency. Demand-side effects, in which proponents are willing to pay more for a service as its popularity grows, are possible, but willingness to pay on the part of the G2C market may be limited by public sector funding constraints. Integrating value-added functionality and services may help overcome this barrier.

Social effects, where consumers are influenced by the decisions of other consumers, are a key driver for PlaceSpeak. The integration of multiple social media authentication mechanisms combined with the ability for PlaceSpeak registered consumers to invite members of their social media networks are the primary features intended to leverage social network effects. Social media usage from the technology validation trials is currently being analyzed to determine which social media networks and features are driving consumers to the site, and to help understand the relative importance of user demographics and the mechanisms by which social network effects are generated and captured. PlaceSpeak's market research efforts currently underway will help refine these findings.

3.2.2 Value Networks

In addition to network effects, value networks are also useful to a start-up firm like PlaceSpeak. The concept of value networks builds on that of value chain analysis, by considering the external network of relationships that help firms capture value from their innovations. Value chain analysis was a framework originally developed by Michael Porter to help analyze a firm's value-adding activities, by classifying the firm's activities into primary activities – including operations, sales, inbound/outbound logistics, and service – and support activities, defined as the internal capabilities of the firm (Grant, 2008). While Web 2.0 start-up firms are no different from firms in other industries in that they require core competencies in product development, human resources and management, the collaborative and de-centralized aspects of the platform also elevate the importance of the firm's value network.

The value network of a business is the structure through which suppliers, customers and third parties interact to “influence the value captured from commercialization of an innovation” (Chesbrough, 2002, p. 8). Christensen and Rosenbloom (1995, p. 242) argued that an important strategic consideration is that, in addition to required capabilities, whether new value networks must be created or integrated for the firm to realize the benefits of an innovation. For PlaceSpeak, this means aligning itself with a diverse array of stakeholders that may have no existing interaction with each other. These include partnerships with firms or organizations that can provide competencies that can strengthen the product or augment the business model. For example, organizations that maintain address data for unrelated business purposes may be interested in providing access to their internal data for revenue sharing arrangements. Networking with firms or contacts in apparently unrelated market sectors may lead to business opportunities for new applications of the product that were not considered as part of the original concept. PlaceSpeak may be the locus for these new networks, or it may benefit from the coalescing of networks that emerge to meet new business opportunities.

Figure 3 illustrates the key members of PlaceSpeak's value network with the roles and interactions that take place. Solid lines indicate the information flows that support the primary business transactions between entities. Dashed lines represent secondary information flows that are supported by the informal relationships that develop between entities. In the early stages of the company's growth, the executive team and advisory board can provide critical advice, share contact information and make necessary introductions through their personal networks. Researchers and beta site customers help validate the product strategy and business model, providing insight and critical information. As the product moves into the commercialization

stage, information flows between partners, resellers, service providers and customers become more central to the process.

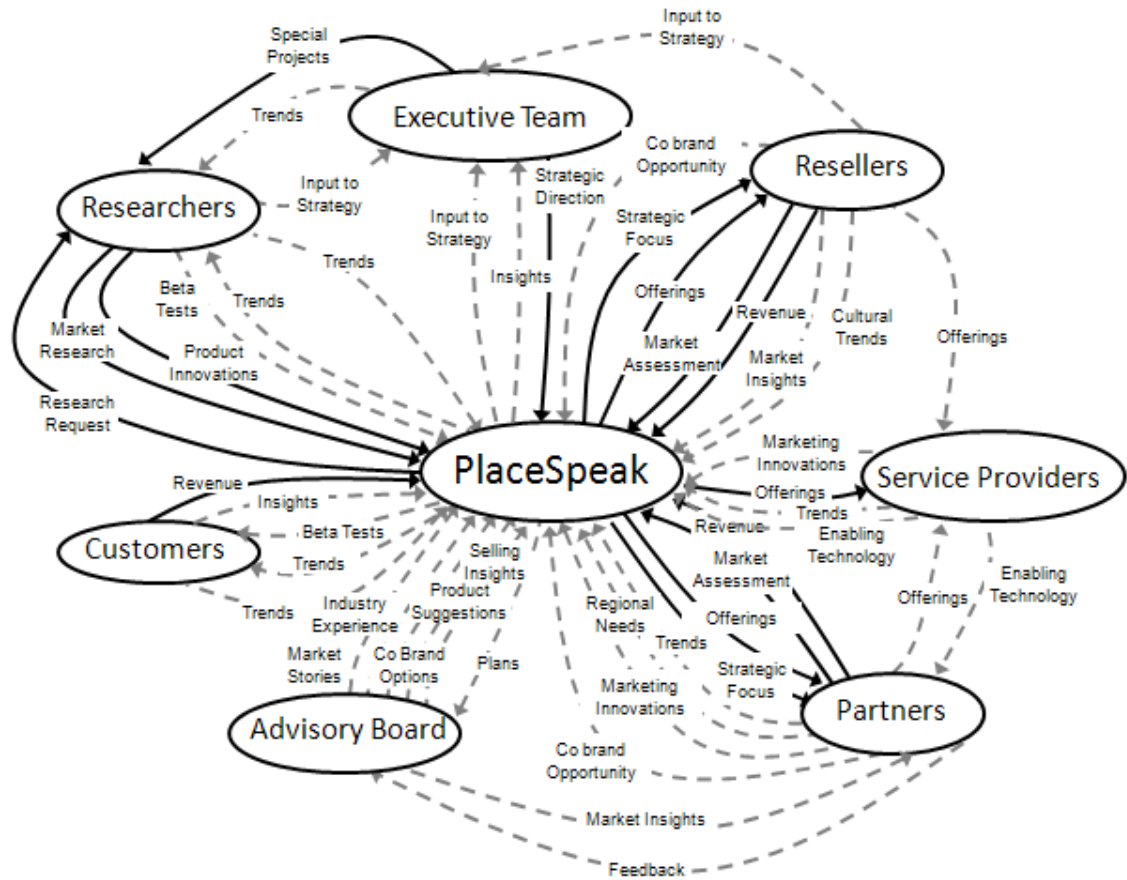


Figure 3 PlaceSpeak Value Network

Note. Adapted from "Value Network Analysis and value conversion of tangible and intangible assets" by V. Allee (2008).

For a new firm like PlaceSpeak, maximizing its partnership alignment with its value networks will enhance the value of the product, both in terms of complementary goods on the supply side, and network effects on the demand side (Chesbrough, 2002). The knowledge gained from members of PlaceSpeak’s value network as it begins to coalesce has been critical to getting the company off the ground. The strategic value of the company founder’s personal network has been instrumental in driving the development of the company, initially by assembling an experienced board of directors and advisory board who have provided a wealth of experience and access to relevant professional and social networks. The founder’s access to City

of Vancouver decision makers and potential key customers in the real estate sector has also helped validate the product at a very early stage in development. In the current beta phase, information flows between PlaceSpeak and customers involved in beta testing, and discussions with prospective partners, resellers and service providers provide critical information to help PlaceSpeak determine the business model and technology strategy. As the product transitions into the commercialization phase, the value network will continue to grow and evolve, influencing the firm's ongoing strategy and market reach.

3.3 Market Estimates

The target market for PlaceSpeak is broadly defined as any organization that is seeking to engage with the public on issues that are linked to geographical location. Four basic market segments are identified that use conventional consultation methods:

1. **Local governments** – this includes cities, towns, villages, regional districts, unincorporated areas and tribal councils and the service areas within those organizations (e.g. engineering, planning, education, health and community services, emergency operations, police, fire).
2. **Public and regulated agencies** – this includes (but is not limited to) agencies, federal and provincial government ministries and crown corporations, public/private partnerships with responsibilities in the public transit, universities and colleges, emergency services, health, transportation, utility, housing, and insurance sectors.
3. **Private sector firms** – development corporations and other professional members of the real estate sector involved in land use decisions that require public consultation, resource sector and infrastructure management
4. **Location-based organizations** – private/public entities including rate-payer groups and community-based organizations

These market verticals can be further segmented by geography. PlaceSpeak's potential market within British Columbia includes the sectors listed below.

3.3.1 Local Government

There are 160 local governments in British Columbia, including both municipalities and regional districts. Segmented by population, there are ten jurisdictions with a population greater than 100,000, twenty with a population greater than 50,000, and thirty-eight with a population greater than 20,000. As PlaceSpeak has learned in the technology validation trials with the City of Vancouver (CoV), multiple departments are interested in hosting independent consultation processes for topics specific to departmental areas of responsibility. For example, within a two month period three separate initiatives were launched by different departments within CoV. Feedback from this and other customer trials will be used to refine PlaceSpeak's assumptions about use of the product at a single customer site and the impact on revenue estimates.

3.3.2 Public and Regulated Agencies

Vertical sectors in British Columbia targeted by PlaceSpeak include transportation, health, and utilities. Five large transportation agencies in BC include Translink/CMBC which is responsible for transit and related infrastructure in the Lower Mainland, BC Transit which is responsible for transit in the remainder of the province, BC Ferries, Vancouver Airport Authority and Port Metro Vancouver. Each of these organizations has been involved in ongoing land use decisions and has engaged the services of consultation firms. There are six health authorities in BC that have engaged in consultation practices. Utilities include BC Hydro, Fortis, Terasen and over thirty other organizations listed as BC Utilities Commission members (Companies, 2011).

3.3.3 Private Sector

Private sector firms involved in land use decisions include natural resources (forestry, mining, oil and gas), and the real estate industry. The Urban Development Institute lists over 500 members in BC involved in the real estate development and services industry (UDI Member Directory, 2011). Marketing efforts will focus primarily on the real estate industry, as the consultation requirements in this sector are closely aligned with the product functionality. Other potential private sector markets will be researched more thoroughly in later iterations of the business plan.

3.3.4 Neighbourhood Associations

Preliminary research indicates that there are considerably more neighbourhood and ratepayer associations than municipalities. In the two largest municipalities in BC – Vancouver and Surrey – there are over thirty neighbourhood associations in each city (Neighbourhoods for a Sustainable Vancouver, 2008, CommunityRatepayersAssociationBoundaries_LIST_May2011, 2011). Additional market research for geographical segments outside BC, including Canada and the United States, is included in the Appendix for reference purposes.

3.4 Key success factors

With a large number of firms involved in the online consultation industry, and without an emerging market leader, any firm that can gain a first-mover advantage in establishing a sizable user base may become a dominant player. Research by Leiberman and Montgomery (1988) has underscored the preferential position of firms that have succeeded in gaining first-mover advantage, whether through skill or luck. However recent history suggests that second-mover advantage has benefits of its own (e.g. MySpace versus Facebook), enabling the follower to learn from the mistakes of its predecessor (Walling, 2005). For a firm like PlaceSpeak, with a potential strategic window to exploit its competitive advantage, it may have no choice but to pioneer the technology and accept the risk of having few complementary resources at its disposal (Grant, 2009). Recent discussions underway with potential partners (currently under non-disclosure agreements) are encouraging in that PlaceSpeak may be able to leverage strategic partnerships to gain first-mover advantage with sufficient resources and capabilities to withstand potential rivals.

The competitor analysis in Section 5 indicates that there are several aspects of the solution design and the business models common across the industry, which includes hosted platforms, Web 2.0 technologies, subscription pricing and support services. These common elements suggest that price, flexibility and complementary services are emerging as key success factors and likely represent a loosely-defined dominant design.

From interviews with proponents and consumers as part of the technology validation trials, additional factors have emerged. Ease of use is cited as a key factor in attracting consumers to spend more time on the site and to return for multiple visits. Attracting consumers to the site is a key requirement for proponents, who must demonstrate ROI benefits from the software.

As many competitor products share similar functionality, the ability for products to differentiate in areas of importance to customers is a key assumption behind PlaceSpeak's

business strategy. Sales and marketing efforts will be essential in communicating the value of the differentiated features to potential customers. Partnerships with strategic service providers is another factor in gaining competitive advantage, as it will enable firms with limited resources and capabilities to augment their product capabilities and market reach.

4: Products and Services

This section reviews the product, the roadmap for development and some of the key areas identified in the research where additional work is required. As the product is in beta version, requirements are still being refined through the technology validation trials and discussions with proponents and members of PlaceSpeak's value network. Key elements of the product strategy include strengthening the product's competitive advantage through technology enhancements, aligning with partners, standards and complementary technologies, and proprietary protection.

4.1 PlaceSpeak.com

The product consists of a web-based platform for managing consultation processes with stakeholders, delivered through a SaaS model. Currently embedded in the web application platform, the geo-verification and geo-location functions are to be re-packaged as a separate API as part of the next phase of development. The intent is for the product to support a dual-channel deployment and pricing strategy: a monthly subscription fee for the SaaS platform, and a per capita charge for use of the API. Customers can integrate the API within their own websites with minimal customization required, accessing the core capabilities of PlaceSpeak in conjunction with third party or in-house consultation platforms. Despite PlaceSpeak's innovative capabilities, the challenge of entering competitive networked markets requires an adaptable product strategy. By positioning the product so that it offers complementary benefits to established products or services, PlaceSpeak can potentially gain access to a larger pool of customers (Chakravorti, 2004). For example, CRM products could plug in the geo-verification and geo-location functionality of PlaceSpeak, augmenting existing features with the ability to identify and analyze customer location. Survey and polling software could be used in tandem with PlaceSpeak, integrating the advanced polling capabilities of one tool with the unique functions in PlaceSpeak (this integration approach was used at the City of Vancouver). Publishing an API also creates value for the product outside its core platform (Briggs, 2009). Customers can choose to purchase a subscription to the SaaS platform or use the API in conjunction with other consultation products, with each distribution mechanism providing an independent revenue stream.

The current product supports functionality for proponents to create and manage issues, and tools for consumers to register on the site and respond to issues. Current integration capabilities include support for social media support and the ability to embed a link to PlaceSpeak in third party websites. These functional specifications are summarized in Table 1. Additional screenshots showing proponent and consumer functions are included in Appendix 2.

Table 1 PlaceSpeak Functionality

Proponent Features	Consumer Features	Integration Features
<ul style="list-style-type: none"> • Create and manage issues • Draw geographic boundaries on the map to locate an issue • Add the following features to an issue: <ul style="list-style-type: none"> ○ Polls ○ Dates and Events ○ Galleries ○ Description and Contact Info ○ Discussion Topics 	<ul style="list-style-type: none"> • Register and edit a profile • Browse issues from a list or an interactive map • Verify user address (using home phone) to connect to issues in their neighbourhood • Join discussions on proponent issues the user has connected with • View other user's locations on the map who've connected to the same issue • Invite their neighbours to join a discussion • Manage their privacy settings 	<ul style="list-style-type: none"> • Facebook, Yahoo, OpenID and Twitter Sign-in • Facepile (Facebook Integration) • Facebook Application • Connect to PlaceSpeak widget (embed in 3rd party websites)

Similar to other Web 2.0 products, the technology used to develop the product is a mix of open-source frameworks, APIs, and external services. These include:

- Linux, Apache, MySQL and PHP (LAMP)
- Google Maps API and geocoder service
- Twilio Notification Service
- White Pages Reverse Phone Lookup Service

- Lime Survey (open-source survey software)
- Account Authentication Services (Twitter, Facebook, Google, Yahoo, OpenID)

A screenshot of the current platform (accessible at <http://www.placespeak.com>) is shown in figure4. In this example, the consumer has registered their home address and connected to a discussion issue, which contains a link to the proponent’s discussion forum.

Figure 4 PlaceSpeak Topic Page. Copyright 2011by PlaceSpeak. Reprinted with permission.



4.2 Product Novelty: Geo-Verification and Geo-Location

The term *Geo-Verification* is widely used throughout this document in reference to PlaceSpeak’s competitive advantage. What Geo-Verification actually means is the ability to verify a registered consumer’s address information using one or more sources of reference data, and locate that address on a map. The process is currently implemented using the White Page Reverse Phone Lookup service, a free web service published by White Pages Inc. As part of the profile registration process, the consumer can include a home telephone number, which is used as

input to the reverse phone lookup request. The response is parsed for address information, which is compared against the registered address information using pre-set threshold criteria. If matched, the consumer is notified through the site user interface that their address has been verified. Additional SMS and email notification is also used to verify that the phone number entered by the consumer is in fact their number. Addresses are assigned a map location using the Google Maps API geocoding service, which parses an input address and returns the XY coordinates of the point. Once verified, consumers can connect to issues using PlaceSpeak’s geo-location function. The verification process is illustrated in the diagram below.

Figure 5 PlaceSpeak Address Verification Process



Geo-location as implemented in PlaceSpeak describes the ability to link content and issues to geographical location. For example, when creating a new issue topic, the proponent can use the embedded web map to digitize a polygon boundary around the area where the issue is of relevance. Once the boundary is established, registered consumers can connect to issues that spatially contain the consumer’s address. Boundary definitions are conceptually flexible, and can be defined and managed by proponents as required using the administration tools provided in the application.

4.3 Product Roadmap

PlaceSpeak has evolved rapidly since the development of initial concept in September 2010, through several iterations that added core features identified in the original mockup, to the current version (Version 3) undergoing technology validation at customer sites through May and June 2011. Version 1 was a proof of concept developed in December 2010 that consisted of wireframes and basic consumer profile capabilities including Facebook integration. Version 2, released in January 2011, added more personal profile features, basic mapping capabilities, geo-

verification for consumer profiles based on the telephone number and the ability to invite friends. Version 3 requirements were prepared in February 2011, with development and testing occurring through May 2011 in preparation for the technology validation process. This version added proponent issue management functions and enhanced mapping functionality. The beta site for Version 3 is available at <http://www.placespeak.com>. NRC/IRAP-sponsored technology validation trials are underway through May-June 2011 for five proponents, which include the City of Vancouver Fire and Rescue Service, the Town of Gibson's Harbour Planning initiative, City of Vancouver's TalkVancouver.com and Tag Your Hood initiatives, and a survey for the Kits Point Resident's Association.

While Version 3 development was underway, Version 4 requirements have been initiated. This version will incorporate consumer feedback from the technology validation. Anticipated enhancements include bi-directional notification capabilities, which will significantly enhance the geo-verification/geo-location functionality of the product, enabling proponents to communicate with registered consumers on location-specific topics of interest. Version 5 features are being conceptualized, but are expected to include an e-commerce component, mobile support, and an API /widget implementation that will enable seamless integration with customer websites and third party products. With the integration of payment capabilities it is expected that the product will be ready for commercial release.

4.4 Product Strategy

Product strategy is critical for any start-up firm with limited resources operating within a competitive landscape. Wrong strategic choices in new product commercialization could consume valuable time and resources for little gain, and if poorly executed could impair the reputation of the product and the firm right at the outset. Teece et al. (1997) introduced the dynamic capabilities model, which suggests that for firms to remain competitive, they must be prepared to adapt to changes in the business environment, and that strategic management of firm capabilities is critical in supporting the required adaptability. Given the rate of technological change and the difficulties in evaluating changing markets and business environments, corresponding adaptation in strategy over time is to be expected. Aspects of the product and the business model that are not successful or improperly aligned with the internal and external environment may need to be discarded, revised or extended to adapt to changing circumstances.

The Product Roadmap outlines the plans to fill the remaining gaps in the product prior to commercialization. The features mentioned in the section above are a combination of items

originally considered in PlaceSpeak’s conceptual requirements phase and features subsequently identified and evaluated from internal research into competing products. Feedback from the technology trials will be used to prioritize the new features that attract the most interest from consumers and proponents, and to discard or defer features that add little value. There are many factors involved in determining which features go in to a product, how these features are positioned and the level of effort that should be allocated. The graphic below illustrates some of the factors that influence new product decisions, from the original concept, through the various sources of feedback, market and industry research and strategy decisions about markets, partnerships and potential network effects, to commercialization.

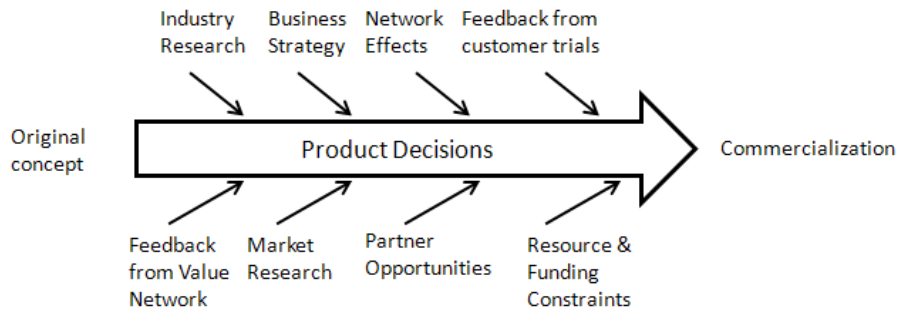


Figure 6 Factors in Product Strategy

Teece et al. (1997) consider that the appropriability potential of a product is strong (meaning that entry barriers protect the ability of a firm to capture value from innovation) if two requirements are met, first the technology is difficult for competitors to imitate, and second the technology can be protected through legal means (Teece et al, 1997). Levin, Klevorick, Nelson and Winter (1987) cite additional factors including the secrecy of the product development effort, development lead-time, learning curve efficiency, and sales and services (as cited in Srinivasan, Lilien, and Rangaswamy, 2006). The prevalence of mashups in Web 2.0-based products and services has created much confusion around the establishment and protection of intellectual property rights (Gangadharan, 2008). Given the complexities around establishing proprietary protection (reviewed in more detail in section 4.6), the options available to increase the inimitability of the firm’s technological innovations and business processes are not obvious. The

remainder of this section will review several options for enhancing product functions that have strategic significance.

4.4.1 Geo-Verification Enhancements

Geo-verification is the mechanism used to verify that the profile information provided by a consumer, which includes street address and telephone number, is authentic. This mechanism is currently implemented using a three-stage process that integrates the White Pages Reverse Phone Lookup service, the GoogleMaps API geocoding service and the Twilio Notification service. This approach has several risks and limitations. Potential coverage is limited to listed landline phone numbers, as the White Pages directory does not publish unlisted landline numbers or cell phone numbers. While landline telephone use is still common, many telco customers are switching to cellphones or other substitutes such as digital phone services from cable providers. A survey of telephone users in 2010 indicated that 12% of telephone subscribers had cancelled their landline in favour of cellphone only, with another 66% indicating they were considering the option (Nowak, 2010). The same survey indicates that landline replacement by cellphone in US is much higher than in Canada – up to 25% - due to market competition and price (Nowak, 2010). Another significant risk is that competitors can easily imitate the three-stage geo-verification process. There is insufficient technological complexity in the process to ensure PlaceSpeak's competitive advantage will remain unchallenged, and likely insufficient novelty to obtain patent protection. There is also legal risk in that the information is obtained using the screen-scraping method, which may violate the service terms of use once PlaceSpeak is released commercially.

While reverse phone lookup is an adequate mechanism for verifying listed numbers for land lines, multiple verification procedures will likely be required to ensure that this core function of the product provides adequate depth and breadth of coverage, and that the business advantage is protected. Depth of coverage in this case indicates multiple overlapping mechanisms that run in sequence or parallel. If one method fails or returns an ambiguous result, the results from other methods can be cross-referenced using business rules to provide a higher level of confidence in the accuracy of the result. Breadth of coverage means that the data sources used for each verification method provide minimum thresholds of completeness.

Verification options include technological solutions internal to the product, outsourced solutions, strategic partnerships and combinations thereof. The table below outlines the verification options, analyzing the relative costs and benefits of each approach from a business and technical perspective.

Table 2 Geo-Verification Mechanisms

Verification Mechanism	Analysis
<p>Use the post to mail notifications to consumers. Once consumers register through the application, the system can output a notification containing a temporary key mailed to the consumer by proponents. Once they receive the notification, the consumer can log in using the temporary key to complete the verification process. Google uses this approach (PIN mail) to verify AdSense customers.</p>	<p>This is a simple solution that is tested in the marketplace; however, the associated transaction costs may make it less attractive to both consumers and proponents. As the process is not automated or self-serve, proponents must allocate additional staff cycles to generate the mail outs. The time delay between the consumer’s initial registration and receiving the confirmation letter may cause many consumers to lose interest in returning to the site.</p>
<p>Use customer data. Customers could provide access to internal data to verify registered consumers. This data could be accessed through a number of mechanisms including:</p> <ul style="list-style-type: none"> a. Secure web APIs implemented or licensed by the customer. b. Functionality developed to enable PlaceSpeak to be installed on-premise at customer sites, accessing data directly from customer data sources. c. Functionality developed to enable PlaceSpeak to upload and store data, using standardized formats. 	<p>Privacy and security concerns are paramount in this solution and may require significant extensions to the product and potentially external certifications to meet customer requirements. Customization services would be required to support customers with unique data requirements. For option c), additional consideration must be given to how the product will scale to support internal data storage and bandwidth requirements for data upload.</p> <p>The potential benefit is that this mechanism strengthens the competitive advantage of the solution by embedding the capabilities within the product, and reinforcing the channel between PlaceSpeak and the customer.</p>

Table 2 Geo-Verification Mechanisms Continued

<p>Use data from external service providers. Investigate licensing arrangements or partnerships with organizations that provide service level access to address and identity related information. Examples include assessment authorities (BC Online), government postal agencies (CanadaPost), commercial address verification providers (Zumbox, Earth Class Mail) and commercial identity verification providers (Idology).</p>	<p>This solution has the greatest potential strategic value, depending on the size and market reach of the service provider. Partnerships with national or international scale providers who can guarantee exclusivity or early access would have enormous benefit, in that PlaceSpeak could simultaneously extend market reach while locking out competitors. However, services with external dependencies that impact the potential value of that service will require scrutiny by PlaceSpeak. For example, verification services maintained through subscription may be of little value to PlaceSpeak if the service provider cannot guarantee greater consumer uptake than what PlaceSpeak could generate through its own efforts. Transaction costs are another consideration, depending on the cycles required to negotiate the partnership and for ongoing oversight, as well as opportunity costs, if potential opportunities are foregone. Potential partners may demand significant changes in the product or business model, which introduce significant risks if the partnership fails.</p>
<p>Device location mechanisms including the ability to:</p> <ol style="list-style-type: none"> a. Capture consumer locations using GPS capabilities in mobile phones and cross-reference with the geocoded address location. b. Capture locations using web browser capabilities (Google Gears/geo-location API) and cross-reference with the geocoded address location 	<p>GPS and geo-location mechanisms are relatively simple to implement. Both have a voluntary aspect, in that the consumer must be instructed to connect from their home address to successfully complete the verification process, and accept a request to transmit their device location to PlaceSpeak. These methods are not “five-star” in that there is no certification or guarantee of accuracy, but they provide an additional layer of verification at little cost.</p>

The multi-layer verification example displayed below illustrates how a request drills through multiple layers of verification, thus enhancing and establishing the consumer's verification level (measured by a star ranking). The verification levels that PlaceSpeak will support for each proponent are subject to data availability, completeness and cost. The importance of the verification component to the proponent for the topic or issue will also determine the degree of verification required.

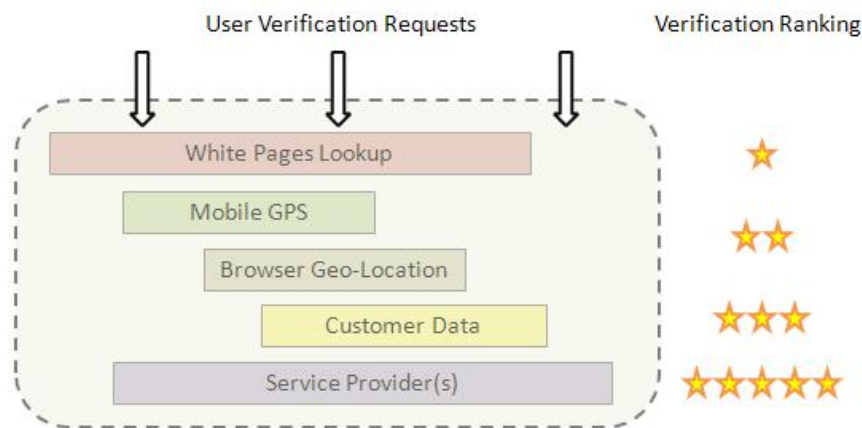


Figure 7 Geo-verification Process Flow

4.4.2 Geo-Location Enhancements

Geo-location and mapping capabilities are implemented using the Google Maps API. Registered consumer addresses are geocoded using the Google Maps API geocoder. This function is used to determine the geographic location of the consumer address to link to geo-referenced issues. Issue boundaries are established by digitizing polygons on the Google basemap, storing the geometry and assigning an issue to the boundary. A point-in-polygon function is used to link consumer locations to issue boundaries.

Although the Google Maps API is considered a de facto mapping standard for Web 2.0 platforms, local governments and other target market segments largely use professional mapping products from companies such as Autodesk, ESRI and Intergraph. By supporting integration with one or more of these products, PlaceSpeak can better align itself with complementary technologies, tapping into a vertical-focused value network and potentially improving the value

of the product (Chesbrough, 2002). One example of a complementary technology is ESRI's ArcGIS Extension for the Google Maps API (http://help.arcgis.com/en/webapi/javascript/gmaps/help/google_start.htm). Incorporating this simple, free extension into PlaceSpeak would enable ESRI customers to mashup their data with PlaceSpeak's base map without additional processing, and enable PlaceSpeak to leverage enhanced mapping and geo-location capabilities without having to develop these capabilities from scratch. By one estimate, ESRI has an 80% share of the federal, state and local government market for Geographic Information System (GIS) software in the US (Singleton, 2009). Aligning with de-facto standards will potentially increase the opportunities to integrate with complementary products and services, increasing the potential market for PlaceSpeak.

4.4.3 Aligning with Standards

Part of the process of building a value network and leveraging network effects involves aligning with industry standards. Standards can be de-facto, based largely on market patterns of adoption like Google Maps in commercial mapping or ESRI in professional GIS, or de-jure, in which case the standards are established and maintained by industry bodies (Srinivasan, 2006). While de-jure standards in online consultation software have not yet emerged, the PlaceSpeak technology stack is based mostly on de-facto standards in Web 2.0 software. Additional de-jure standards that may be relevant to PlaceSpeak include GIS standards established by the Open GIS Consortium (<http://www.opengeospatial.org>), the 311 Open API (<http://wiki.open311.org>), and security/privacy related standards discussed in the section below. While the 311 Open API does not currently support any consultation-specific features, future extensions to the API may align more closely with PlaceSpeak's functionality. An alternative option that may provide more strategic benefit would be for PlaceSpeak to create and maintain a consultation API that could be positioned as a de-facto standard, either through its own efforts or in conjunction with local governments and other service providers.

4.4.4 Security Enhancements

Research has identified that security and privacy issues are a primary concern for local government customers of online solutions (Ebrahim and Irani, 2005). A report by ENISA (European Network Information Security Agency) outlines many potential security vulnerabilities in Web 2.0-based platforms (ENISA, 2008). The US Federal Government requires FISMA (Federal Information Security Management Act) compliance from its suppliers (Foley, 2011).

PCI DSS is a standard that governs credit card transactions in Canada and the US. Documentation is available from the PCI security standards organization website

(<http://www.pcisecuritystandards.org/>). For PlaceSpeak, there is potential risk in the storage and handling of identity information and the security requirements needed to support the e-commerce functionality to be added prior to commercialization. While PlaceSpeak will not be storing personal identity information (PII) that would trigger US government certification requirements, product planning should incorporate a review of the emerging guidelines around security, privacy and the use of identity information (RSA, n.d.). The current website prominently displays the firm's privacy policy (in accordance with Canadian privacy legislation).

4.5 Customer Use of the Product

PlaceSpeak can be implemented by customers and third party websites using two delivery mechanisms: the SaaS platform and the API. The PlaceSpeak platform consists of a rich-featured consultation website and geo-verification API that will be provided to customers as a hosted service. Proponents will have the ability to remotely manage their own branded sites, creating new issues and adding content as required. Consumers will have free access to sites published by proponents. On-premise deployments will be supported for customers who have special data requirements, subject to additional consulting fees depending on the customization services required.

The API will consist of an embeddable widget and secure web service that will provide the core geo-verification and geo-location capabilities in a package that can be deployed independently of the PlaceSpeak consultation platform. This solution can be deployed by customers who use other web-based products for consultation purposes, or by other consultation platform providers who are interested in partnering agreements to augment their existing platform capabilities. In all cases the use of the API will trigger a usage fee for each authenticated consumer per unique issue. In addition, the SaaS platform will be licensed using a monthly subscription model with four basic functional categories ranging from an introductory price for a subset of the platform features to a fully functional solution.

In addition to the SaaS and Per Capita revenue streams, PlaceSpeak will provide support services for one or more of the subscription segments. Moderation services have been identified by potential customers as a desirable value-added service and will be investigated further as PlaceSpeak moves closer to the commercialization phase. The combination of deployment strategies, pricing models and supporting services described here is intended to provide flexibility

for both customers and PlaceSpeak, broadening the potential customer base and enabling PlaceSpeak to target its resources where required. Customers will have considerable flexibility in integrating PlaceSpeak with existing software and websites, demonstrating the benefits of the product without disrupting existing workflows.

4.6 Proprietary Protection

Intellectual property protection is an important method for preventing competitors from copying a firm's innovative technologies and processes, allowing the firm to realize the value from its innovation efforts. The options for protecting PlaceSpeak's technology through technical and business strategies are discussed in Section 4.4 Product Strategy. The Company purchased the PlaceSpeak.com domain name on November 1, 2010. PlaceSpeak has begun the process of obtaining intellectual property protection, first by launching a search through the NRC-IRAP library to determine what ideas may have already been patented. The next step is to initiate a provisional patent application in Canada and the US, which is a less costly mechanism that will provide one year's protection while the firm refines the technology and builds the business.

According to the Canadian Intellectual Property Office, there are three criteria for patentability (A Guide to Patents, 2010):

- The invention must show novelty (be the first in the world).
- It must show utility (be functional and operative).
- It must show inventive ingenuity and not be obvious to someone skilled in that area.

Given the costs and complexities associated with legal patent protection, research by Keld Laursen and Ammon Salter (2005) into the relationship between IP protection strategies and innovation outcomes suggested that moderate rates of IP protection correspond with increased innovation (as cited in Steen, 2010). The implication is that while PlaceSpeak should investigate available means for IP protection, the company should not be overly focused on legal protection mechanisms to the exclusion of improving the product and building relationships with complementary vendors.

As a corollary to protecting its own IP, PlaceSpeak must be careful to not infringe upon the IP or terms of use for any external data, services and software integrated into the solution. Prior to commercialization, PlaceSpeak's legal counsel will review the terms of use for any third party components used in the solution to determine if licensing arrangements are required, or if alternate components with fewer restrictions can be substituted as needed. Survey research has

indicated that legal liability and intellectual property protection are two primary issues of concern for organizations considering the adoption of Web 2.0-based products (Donston, 2008).

Addressing this matter early not only protects PlaceSpeak from future litigation risks, but also helps reassure potential customers about the firm's seriousness of purpose and long-term prospects.

5: Competitive Analysis

This section reviews the competitor firms and products identified in the research. The products are categorized by functionality, with the analysis focusing on the potential threats to PlaceSpeak's competitive advantage. The industry as a whole is analyzed using Porter's five forces of competition model, determining where the greatest threats to profitability are likely to occur.

5.1 Competitors

The online consultation industry is described by a wide variety of terms, each of which can indicate certain types of capabilities that differentiate among the providers. Descriptive terms include e-participation, e-government, public participation, civic engagement, online public consultation, planning 2.0, government 2.0 and social CRM. The ParticipateDB website lists 186 commercial products, open-source solutions and community portals that contain capabilities identified with the online consultation industry (ParticipateDB, 2011). When assessing the competitor environment, as comprehensive market share statistics were not obtainable, representative competitor products were selected using the following criteria:

- The products fit into functional categories that overlap with PlaceSpeak's core capabilities
- The firms are a going concern, meaning recent product development and/or sales and marketing activity on the website with at least one customer reference site
- Where many similar products exist in a category, products were chosen that appeared to have a significant customer base or had mindshare in relevant articles and discussions on the web.

Figure 8 groups potential competitor products into three functional categories, with PlaceSpeak occupying a unique niche. These categories represent the types of products available, which have the potential to or already overlap with PlaceSpeak's core functionality. As

PlaceSpeak's position in the diagram indicates, none of its competitors provides the geo-verification and geo-location functionality, which represents PlaceSpeak's core differentiator. Products considered as direct substitutes are online consultation platforms that provide survey and user forum capabilities, with customization and support services for local government customers, and GIS and mapping capabilities.

The CRM and 311 products considered in this document target local governments, providing mobile applications for the public to report non-emergency information to civic authorities, in addition to other functions that automate local government business processes. These products are indirect substitutes; while targeting the same customers with similar capabilities, consultation is not the main business objective. Market demand may compel the providers of these solutions to incorporate consultation features. Although PlaceSpeak does not provide either 311 or CRM capabilities, there is sufficient overlap in the technology, market and business models to consider this category of products as a potential competitive threat in the near future, if not an immediate threat.

An additional category of competitors are firms that conduct polls and surveys for governments using the conventional methodologies listed by Abelson et al (2001). PlaceSpeak is positioned to augment the services provided by these firms with a low-cost alternative that provides better user authenticity than other online tools. Depending on how these firms view PlaceSpeak as a threat to displace existing lines of business, they may outsource the capabilities to other online products, enhance existing proprietary products and services, or develop new capabilities in-house. PlaceSpeak should position itself as a complementary service, seeking re-selling or licensing opportunities with one or more polling firms. As online consultation tools become more prevalent, polling and survey firms will integrate and view them as a must-have tool, rather than an option.

Figure 8 Online Consultation Product Diagram



Online consultation products with existing GIS functionality could potentially develop or integrate capabilities similar to PlaceSpeak’s geo-verification and geo-location tools with less effort required than products that do not provide any GIS capabilities. This means that firms that possess these capabilities are well positioned to threaten PlaceSpeak’s unique advantage. Section 4.4 Product Strategy examines how PlaceSpeak can mitigate this threat by adding more depth to its technological advantage.

Other products focus on addressing different business requirements, but could be extended or adapted to align more closely with PlaceSpeak’s specific market. These include CRM/311 products with GIS capabilities (CitySourced, SeeClickFix, BasicGov, Lagan) and online consultation products without GIS capabilities (CitizenSpace, EngagementHQ, UserVoice). These categories also represent potential markets for PlaceSpeak’s API product, either by integrating the geo-verification component, or both the geo-verification/geo-location capabilities.

Except for MetroQuest, which occupies a specific niche (visualization), EngagementHQ and ConsultationTracker (a new product developed by a small consulting company), all competitor products provide mobile support, which is a gap in PlaceSpeak’s current product that

should be investigated at the earliest opportunity. All competitor firms also provide consulting and support services, except UserVoice, which targets more generic use cases. Mobile access and supporting services can be considered as necessary components of a whole product strategy, which Moore (2006) argues is an essential component of any strategy that aims to capture the mainstream market. One additional item of feedback that has emerged from the technology validation trials is the need for moderation services, as local governments are concerned about the risk of allowing un-moderated comments on forums under their banner. These and other competitor capabilities not currently supported by PlaceSpeak must be evaluated for inclusion before commercialization can take place. How they would be integrated and when depends on a number of factors including cost, priority and funding.

In terms of price, SeeClickFix and UserVoice provide segmented subscription models that help minimize price compared to firms that charge high annual/one-time licensing fees. BasicGov charges per number of consumers, which is similar to PlaceSpeak's plan to charge per number of registered connecting consumers. A mix of pricing models (eg per consumer and subscription levels tied to functionality, per capita pricing for local governments) determined through market trials may help make the product more competitive than its more expensive rivals. The competitor matrix below provides more information about each competitor for comparison purposes.

Figure 9 Competitor Feature Matrix

Company	Pricing Model	Delivery Model	Market Sectors	Territory	# Sites	API	Mobile	GIS/ Mapping	Support/ Services	Social Media
 EngagingPlans	\$1910/ \$2550	Hosted	Local Gov	N. America	?	No	Yes	Yes	Yes	Yes
 BasicGov	# users	SaaS	Local Gov	N. America	30+	No	Yes	Yes	Yes	No
 BangTable	\$10K	On-premise / SaaS	Local Gov. Energy	Canada, Australia	20+ (Can)	No	No	No	Yes	Yes
 METRO QUEST	\$250K	On-Premise	Local gov	N. America, Australia	20+	No	No	Yes	Yes	No
 LAGAN A Division of CANA	Monthly Subscription	On-premise / SaaS	Local gov	N. America, Europe	200+	Yes	Yes	Yes	Yes	?
 CONSULTATION TRACKER Business Communication Solutions	Subscription	SaaS	Local gov. Utilities	Western Canada	?	No	No	Yes	Yes	No
 CitizenSpace	£3-6K	On-premise	Local gov	UK, Australia	20+	OSS	Yes	No	Yes	No
 SeeClickFix	3 levels	SaaS	Local gov	N. America	200+ (?)	Yes	Yes	Yes	Yes	Yes
 uservoice	7 levels	SaaS	All	N. America	50K	Yes	Yes	No	No	Yes
 CITY SOURCED	Subscription	SaaS	Local Gov	US	?	Yes	Yes	Yes	No	Yes
 icanmakeitbetter	Project	SaaS	Local Gov	N. America	1+	Yes	No	No	Yes	Yes

5.1.1 Online Consultation Products

EngagingPlans.com (<http://www.engagingplans.com>) was developed in 2010 by Urban Interactive Studio LLC based in Colorado. It is a hosted platform for online consultation targeted at local government that contains similar features to PlaceSpeak, with web mapping functionality provided by the CommunityRemarks.com plugin. Features include public comment, visual preference surveys, collaborative maps with public annotation, and online dialogues. Support for a mobile client is also included. The number of clients is not known, however, five reference sites are listed on the product website. Introductory pricing for one customized site was listed at \$19K USD in May, 2011, which also includes technical support and basic customization services. This product is the most similar to PlaceSpeak in its location-based approach to public consultation, but there is no evidence that it currently supports or will be adding geo-verification features in the

near future. The fact that the product is relatively new, with few customers listed indicates it has little market share.

EngagementHQ (http://www.sustainet.com/product_EngagementHQ.htm) is developed by Bang-the-Table, an Australian company, with Canadian distribution provided by SustainNet. The product supports both on-premise and cloud deployments. Features include a webpage template with moderated discussion forums, survey, feedback and notification capabilities. The product is targeted at local government and the oil and gas market, with over twenty customer sites listed in Canada. Pricing information published in 2009 ranges from \$10K CDN for single project to \$60-70K for multi-project packages. There are no mapping or geo-verification capabilities in the product, although the product literature states that participant address information may be used for reporting and analysis purposes. This product has a significant foothold in PlaceSpeak's target market and is already in use at the City of Vancouver, one of the sites where PlaceSpeak's technology validation is taking place. While a competitor, it is also a potential partner for the PlaceSpeak API.

ConsultationTracker (<http://www.consultationtracker.com>) is an online consultation product developed by Silvacom, an Alberta-based GIS consulting company. The product supports GIS/mapping capabilities and is delivered using a SaaS model. No information on pricing or clients is available; however this product is included in the competitor list as it overlaps with PlaceSpeak's feature set and the local government market in Western Canada.

BasicGov (<http://www.basicgov.com>) is developed by a company based in Vancouver, British Columbia. The product is built using the Force.com development platform, and provides a SaaS-based suite of software tools for automating business processes for local governments, including a Citizen Portal module for online consultation and a mobile client. GIS/mapping capabilities are integrated into the product. The website lists over 30 local government customers in North America. Pricing is determined by the number of consumers, with no additional maintenance fees.

Metroquest (<http://www.metroquest.com>) is a specialized product for planning consultation and visualization developed by a company in Vancouver, British Columbia. While the intended audience and purpose is similar to other online consultation products targeted at the local government market, the size and complexity of this product differentiates it from PlaceSpeak. Pricing is variable; one example cited \$250K for a local government implementation. This product is included as an example of specialized software that supports similar capabilities to PlaceSpeak, and is also a potential customer for the PlaceSpeak API.

CitizenSpace (<http://www.citizenspace.com>) is an open-source product developed in UK and supported by Delib, a consulting services company. The features are similar to PlaceSpeak, without GIS/mapping capabilities. This product is used extensively in the UK and has some market penetration in Australia. Pricing is considerably higher than SaaS-based products, in the 3000-6000 GBP range.

Lagan (<http://www.lagan.com>) is a government CRM solution recently acquired by Kana, a UK-based company. This product is an example of government CRM platforms that include online consultation as one of a number of service delivery modules, deployed on-premise or through a SaaS model. The product includes mobile support, GIS/mapping and 311 capabilities. The company website lists over 200 customers.

Icanmakeitbetter (<http://icanmakeitbetter.com>) is a Web 2.0-based SaaS product developed by Sentient Research, a market research company. A trial version of the platform is currently in use at the City of Austin, Texas. The product integrates social media and is positioned as both a collaboration tool for collecting market research, and from the City of Austin site branding, as a platform for G2C consultation.

5.1.2 311 Products

SeeClickFix (<http://www.seeclickfix.com>) is an example of a 311-based solution. This market segment is focused on providing tools that enable citizen reporting to local governments on non-emergency issues (e.g. potholes, graffiti). Providing GIS/mapping capabilities, social media integration and mobile support, this product overlaps with PlaceSpeak's functionality, although targeted more at issue reporting than responding to surveys or discussions. The subscription model and per capita charge is similar to PlaceSpeak's pricing model. Over 200 sites are listed on the website, although it's not clear if these are all subscribers.

CitySourced (<http://www.citysourced.com>) is a similar product to SeeClickFix, providing a mobile/SaaS platform with GIS/mapping capabilities to enable citizens to report issues to local governments. Pricing is unknown; the website provides a map with over 1,900 cities integrated into the solution, but it is unlikely that these are all subscribers.

5.1.3 Online Survey Products

UserVoice (<http://www.uservoice.com>) is an online survey product developed by a company based out of San Francisco. This SaaS-based product provides generic online survey capabilities that can be implemented by a wide variety of customers, however, without the location-based

capabilities that are of direct interest to local governments and other verticals. The pricing model consists of multiple subscription tiers with graduated levels of functionality. The website states that the product has 50,000 users, which suggests that it has gained mass market acceptance. GetSatisfaction.com is another competitor in this space. In Figure 11, the functionality matrix provides a feature-level comparison of a subset of the competitor products.

Figure 10 Competitor Functionality Matrix

							
Access to users							
Geo-verification of user identity	✓						
Permanent user base	✓						
Consultation Functionality							
Surveys/ polls	✓	✓	✓	✓	✓		
Discussion forums	✓	✓	✓	✓	✓	✓	✓
Unique user identification / fraud prevention	✓		✓	✓			
Moderation services	TBD	✓	✓				
Mapping functionality							
Mapping capabilities	✓	✓		✓	✓	✓	
Geo-location capabilities	✓	✓				✓	
Proponent features							
Reporting/ Data analysis for proponents	✓	✓	✓	✓		✓	
Customizable sites		✓	✓		✓	✓	✓
Widgets/ API	✓		✓	✓			✓
User features							
Email notifications	✓		✓		✓	✓	✓
Social media integration	✓	✓	✓		✓	✓	✓
Rich media (videos, etc) capabilities	✓	✓			✓		
Mobile Applications	✓			✓	✓		
Additional features							
Consultation services	TBD	✓		✓	✓	✓	✓
Training services	✓			✓	✓	✓	
Support services	TBD	✓		✓	✓		✓
Pricing model	Subscription & per user fee	Price by project	Subscription per feature	One time fee	Subscription	Subscription per user	Price by project
Price point	TBD	\$10,000 / project	\$15-\$125 / month	\$10,000-\$15,000	\$159/month	\$15/user/month	variable

5.2 Five Forces Analysis of the North American Online Consultation Software industry

Michael Porter’s Five Forces framework (1981) provides analytical insight into industries by assessing the relative importance of the key factors that influence competition and profitability. These factors include threat of entry by new competitors, supplier power, and threat of substitutes, buyer power and internal industry rivalry. Each factor is analyzed in this section in the context of the online consultation software industry in North America.

5.2.1 Threat of Entry - High

Threat of entry is a significant factor in this industry. Web 2.0 SaaS-based products and services are relatively inexpensive to develop, with low capital requirements and minimal cost advantages between competitor firms, resulting in low barriers to entry. There is also a risk that incumbent firms in the market may respond to new entrants by attempting to add similar features to their solutions for minimal or no extra cost to customers. These threats can be mitigated or pre-empted by a mix of strategies that emphasize speed to market, pricing, product differentiation, ease of use and reliability. The potential impact on profitability across the industry is high.

5.2.2 Supplier Power - Low

Supplier power refers to factors that determine the relative power of third party suppliers. Firms may be vulnerable to the extent that they become dependent on external service providers for key components of their business, particularly supporting data services, hosting providers, technical support and moderation services. Seeking partnership and licensing arrangements with multiple providers for key services may mitigate this risk. For the business and technical components that are commodities, supplier power has less risk. Competitors that can leverage better arrangements with outsourcing suppliers or that have the capabilities to perform key functions in-house are less at risk. The threat of supplier power is considered low, with little impact on profitability.

5.2.3 Threat of Substitutes – High

While adoption costs will be low, switching costs for the SaaS-based solutions are also low, increasing the risk of direct substitutes which include other online consultation firms and offline consultation methods. Customers may return to using conventional methods of consultation (public hearings, polls and surveys, focus groups and open houses) if consumer uptake is slow, or there are no measurable results to help determine ROI.

Firms must demonstrate to proponents that their products can deliver similar or better results with relative cost savings compared to other methods of consultation. The ability to attract and retain consumers will increase the ‘stickiness’ of products, reducing the threat of substitutes. Flexible marketing strategies will be essential to attract consumers to web sites, as it is likely that a mix of multiple marketing channels will be required to target different demographics, with some trial and error involved. Identifying and eliminating or mitigating demand-side barriers to adoption will be critical in persuading consumers to stay once they have arrived.

5.2.4 Buyer Power - Moderate

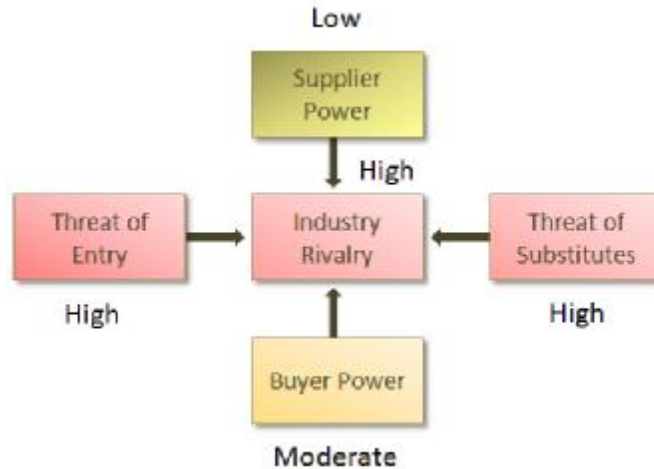
Buyer power is moderate, as buyers are not concentrated nor does any single customer represent a significant portion of the market. There are multiple solutions from which to choose, with relatively low switching costs for the lower priced SaaS-based solutions. Customers may find it relatively simple to evaluate multiple solutions until they find the right fit. Higher priced products will be under pressure to demonstrate ROI for the additional services and capabilities that will be used to justify price. SaaS-based solutions will lower total cost of ownership; however, downstream costs may be higher than anticipated, depending on the requirements for maintenance/forum moderation/customization services.

5.2.5 Industry Rivalry- High

While statistics on market share are not available for the specific sectors, research indicates that most of the firms are relatively new, with a number of small firms competing on similar capabilities without any one product having captured significant market share in North America yet. The CRM and 311 sectors are more mature, with several firms claiming market leadership. As the larger CRM firms have not yet capitalized on the opportunities in the online engagement market, some consolidation is expected to occur in the next few years, with some CRM firms buying smaller competitors, and small firms merging or going out of business. Consolidation poses both a threat and opportunity. The potential threat is that one of the firms in the online consultation category may attract sufficient capital to buy out multiple competitors, weakening the competitive position of the remaining firms. However, this is also an opportunity for an exit strategy, as one or more larger firms may be in a position to merge with or buy out the remaining firms. Based on the number of similar online consultation firms, the threat of industry rivalry is high, and will impact profitability unless one firm can gain first mover advantage.

5.2.6 Summary of Five Forces

Figure 11 Five Forces of Competition



(created by C. Macleod, adapted from M. Porter, 1981)

The implication of the five forces analysis illustrated in the diagram above is that horizontal forces are of primary importance. Firms must contend with a highly competitive industry where the threats include both new entrants and substitute products. To build a sustainable competitive advantage, it is essential to seek out strategic alliances with partners that can provide complementary assets in key aspects of the business and the technology. Alliances with business partners can help augment sales and marketing capabilities, extending a firm's reach in horizontal markets and enabling access to new vertical markets.

6: Marketing Strategy

PlaceSpeak's objective is to become the online community consultation platform of choice for customers in the Lower Mainland and across BC. From this initial geographical segment, the market will be expanded into Western Canada, then across Canada and into the United States. Moore defines a high-tech market as "a set of actual or potential customers for a given set of products or services [with] a common set of needs...who reference each other when making a buying decision" (Moore, 2006, p28). Gaining footholds for the product in key customer sites like the City of Vancouver will help establish the visibility of the product, and provide reference sites for other customers to evaluate.

6.1 Market Segments by Adopter and Municipality

The marketing strategy will target two distinct groups: consumers and proponents. While users will not have to pay to use the site, attracting and retaining users to the PlaceSpeak platform is essential to demonstrating the effectiveness of the product. Proponents are the organizations that will license PlaceSpeak for use in their consultation initiatives. Both consumers and proponents are important targets because their significant presence and continuous participation will not only reinforce the adoption of the platform but also ensure the profitability of PlaceSpeak.

Interviews conducted with proponents and consumers participating in the technology validation trials have uncovered some insights into expectations and behaviour. From a consumer perspective, the following points are raised:

- Residents want to get involved but feel they do not have access to decision-makers
- Residents are sceptical that decision-makers will value their feedback
- Residents want easy access to community issues, and prefer to be informed only about issues that affect them directly
- Residents want a clear reason to participate with clear and tangible rewards for doing so.

From the proponent perspective the following points are made:

- There is variation in the attitudes on engagement between private and public sector proponents, with private sector proponents generally having more negative associations with community consultation
- There is significant variation in preference of pricing model between public and private sector proponents, with private sector proponents having more freedom and preferring a monthly fee or pay per click model. Public sector proponents generally prefer an annual subscription model
- There is significant variation in budget, timeline of engagement projects on a project by project basis, in both public and private sector proponents
- Proponents believe PlaceSpeak can potentially replace the use of surveys, petitions and polls by offline methods.

6.1.1 Consumers

PlaceSpeak segments the consumer market geographically, by municipality. PlaceSpeak will further segment this market of residents based on two key psychographics:

- Social media usage
- Engagement / involvement in local community political issues

PlaceSpeak will target the residents of the City of Vancouver who are moderately or highly involved in local political issues and in social media, i.e. members of one or more social media sites who check their accounts at least once a week.

6.1.2 Proponents

PlaceSpeak segments the proponent market into public or private organizations in the Vancouver area. It segments the market further by organizational need, i.e. organizations that deal with community-based issues and have public engagement requirements that must be met. PlaceSpeak will also target organizations that require authenticated feedback from the community in order to further their own issue.

6.2 Revenue Models

There are six basic revenue models for Web 2.0 based platforms, with many firms using a mix of pricing strategies (Shuen, 2008). PlaceSpeak plans to implement a mixed model that combines subscription and transaction/volume fees. The PlaceSpeak platform will charge proponents monthly subscription fees, and transaction fees per registered consumer, with volume caps assigned on a per capita basis. The PlaceSpeak API will use the transaction/volume model. As in most competitor products, a similar multi-tiered subscription model will be implemented.

For partnerships and licensing arrangements with third parties, depending on the value of services provided, other hybrid models may be appropriate. For example, for potential partner organizations whose services enhance PlaceSpeak’s core capabilities as well as access to sales resources, a revenue sharing model may be recommended. Potential opportunities will be assessed for their strategic value, with consideration of the underlying goal of revenue-generation remaining paramount.

Table 3 Web 2.0 Revenue Models (Adapted from Shuen, 2008)

Revenue Model	Description
Subscription/membership	Fixed price at regular intervals
Advertising-based	Advertisers pay to place advertising on web pages
Transaction fee	Firm that facilitates the transaction pays a percentage
Volume or unit-based	Fixed price per unit, common in bricks and mortar businesses
Licensing and syndication	b2b, customer pays a one-time licensing fee
Sponsorship/co-marketing (revenue sharing)	sponsor pays for direct marketing/branding access to customers

6.3 Pricing

PlaceSpeak’s pricing model will consist of subscription-based pricing for proponent use of the platform plus an API transaction charge per registered consumer per issue. Consumers will not be charged for using the product. From research into competitor pricing, a multi-tiered

subscription model similar to UserVoice will be adopted, with graduated levels of functionality available in each tier. The matrix in Figure 13 displays preliminary price and functionality segments.

Capabilities	Basic (\$19/mo)	Bronze (\$89/mo)	Silver (\$289/mo)	Gold (\$589/mo)
Site				
Unique URL per issue	✓	✓	✓	✓
Custom logo	✓	✓	✓	✓
Domain Aliasing		✓	✓	✓
White labelling			✓	✓
Functionality				
User can create profile	✓	✓	✓	✓
Users displayed on map	✓	✓	✓	✓
Issues displayed on map		✓	✓	✓
Proponent can manage issues		✓	✓	✓
Proponent can create/upload issue boundaries			✓	✓
Simple geo-verification	✓	✓	✓	✓
Multi-level geo-verification			✓	✓
Integration				
OpenID / Facebook Logon	✓	✓	✓	✓
Facebook Application	✓	✓	✓	✓
Notification Capabilities				✓

Figure 12 PlaceSpeak Price and Functionality Matrix

Feedback from customer validation trials and further research into typical engagement requirements will be required to determine the price strategy going into the commercialization phase. Based on discussions with prospective customers in the Lower Mainland and information provided by board members and other members of PlaceSpeak’s network, price ranges used by conventional consultation practitioners have been determined. Further research is required into the task breakdown within a typical consulting engagement to determine the unit price of the consultation component, as polling/consulting firms usually provide a basket of services.

Transaction fees charged for use of the API will depend largely on the external costs of data and services required for the verification process and the specific details for each licensing arrangements. Customers that require only a one or two-stage verification process may be charged a base fee, whereas engagements that require customization to incorporate customer data, or trigger licensing or revenue sharing fees from external providers may be charged additional fees to account for the costs.

6.4 Promotion

6.4.1 Consumers

As per ongoing market research, the point of entry for a residential consumer is a significant determinant in the consumer's likelihood to register on PlaceSpeak. It will be important to tailor the communication methods to the needs, values and beliefs of consumers, and to ensure that the method of communication effectively targets consumers who will be active members on PlaceSpeak. The type of proponent issue and the manner in which the issue is presented may generate different reactions from potential consumers. Given the research finding that consumers are interested in topics that concern them directly, participation rates from registered users can be cross-referenced with topic subject matter and presentation to look for behaviour patterns. The site design and content can be structured to encourage consumers to browse other topics. The reward aspect is also an area that will be explored. Consumers who add value to discussions, or who voluntarily submit information to attain a higher geo-verification level, can be awarded MVP ('Most Valuable Player') status on the site.

Another research finding determines that consumers are more willing to sign up to PlaceSpeak if they know their neighbours and friends have signed up. A key element in the communication to consumers will therefore be visual aids like the map of consumers, or a ticker for the growing number of consumers registered or connected to issues. The home page highlights key pieces of information to educate consumers when they first enter the site. This information includes the purpose of the site, a simple explanation of how the geo-verification process works, and an explanation of the privacy policy. By mollifying any concerns about privacy immediately on the first site visit, PlaceSpeak intends to reduce or remove potential barriers to adoption. The screenshot below displays the privacy policy note and other information highlighted on the home page.



Figure 13 Key Information Displayed on Home Page

The screenshot below illustrates how the map displays registered consumer locations and proponent issues. The green dots represent consumers who have registered an account and home address with PlaceSpeak. The red markers indicate the locations of proponent issues.

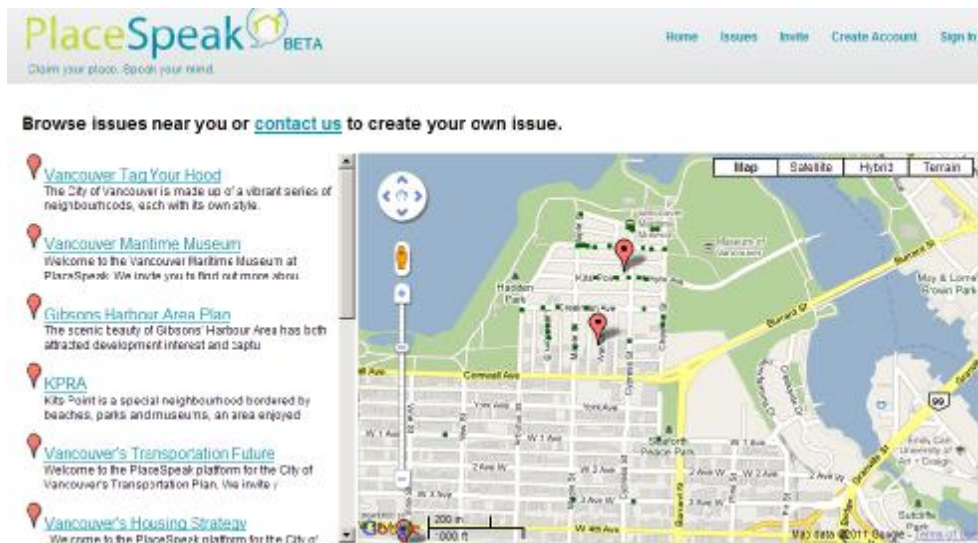


Figure 14 Map Showing Registered Consumers and Issue Locations

PlaceSpeak's target market is defined partly by social media usage. PlaceSpeak will therefore utilize social media as a primary method of advertising PlaceSpeak's service to

consumers. Currently, site uptake is being closely monitored to determine the best applications of social media that will drive consumers to the site, and whether simple tweaks to the user interface (UI) design or adjustments to the marketing plan are required.

PlaceSpeak will rely on earned media through speaking with various media outlets in the Vancouver city and beyond. Many of these outlets will be free community papers. These papers are targeted generally at a younger demographic. Readers of articles pertaining to civic engagement would likely have an interest in civic engagement, and are the ideal target audience for PlaceSpeak.

PlaceSpeak will also embed widgets into third party sites that advertise or facilitate communication for community-based issues, as the target PlaceSpeak consumer who is interested in such issues will likely visit these sites to get involved with community issues. Through these three mechanisms – social media, earned media and integration with consultation-based websites – PlaceSpeak will build its brand among consumers and proponents, helping drive more traffic to customer sites that deploy the platform.

6.4.2 Proponents

Each proponent will have different needs and requirements, based on the proponent organization and based on the individual issue or project that requires public engagement. Communication to proponents will be one-to-one communication, through conferences and trade shows, cold calling, and personal network contacts. Relevant tradeshow and conferences include the UBCM (Union of BC Municipalities) Tradeshow and Exhibition, the regular URISA events (Urban and Regional Information Systems Association), IAP2 conferences and events (International Association for Public Participation), and conferences hosted by professional community planning associations.

The PlaceSpeak platform will be publicly accessible, providing online tutorials and product information for prospective customers who browse the site out of curiosity. Product information will describe PlaceSpeak's functionality and clearly outline the unique value proposition for proponents. Additional promotion channels to be implemented include a PlaceSpeak-branded blog, Twitter account and Facebook page.

7: Management Team

PlaceSpeak's management team is lead by its founder and CEO, Colleen Hardwick. The team has been augmented by NRC-IRAP, MITACS and SBIP internships to assist in a number of foundational tasks including developing the business model and marketing plan, QA and beta testing, accounting and other operational duties. As the beta product has been developed by contractors, one of the key roles to be filled in the next quarter is lead software engineer. This person will be responsible for leading the technical development of the product through to commercialization. The position will offer a competitive salary and benefits. Another key role is an account manager to pursue local government sales, with compensation consisting of a combination of base salary and commissions.

7.1 Executives

7.1.1 Colleen Hardwick – President and CEO

Colleen Hardwick was headed for a career in urban planning when a twist of fate launched her into a 20+ year in the film industry. When a movie was shot in the family home, Colleen changed course to planning movies instead. In 2005, she switched gears, with the support of the Canada New Media Fund, developing MovieSet.com, which won the Vortex Award for new media innovation from the Marshall McLuhan Festival of the Future.

Colleen boot-strapped the development of PlaceSpeak from her personal equity and credit and has raised funds from friends, family and colleagues. Her original concept received \$25K from the NRC-IRAP for Technology Validation. Colleen has a degree in Urban Geography from UBC, is a former member of the City of Vancouver's Development Permit Board Advisory Panel and is a member of Lambda Alpha International. Her business experience, education and intellectual curiosity are the drivers behind PlaceSpeak's concept and implementation.

7.1.2 Murray Swales – Acting CFO

Murray has nearly 35 years business experience as a Chartered Accountant in Canada. During that period he has served his varied business clients, as a partner in local and national accounting firms, and has actively managed his own ventures. Murray's experience as both

internal management and external auditor of public companies has ensured good business, control and reporting practices.

7.1.3 Caitlin Davis – Project Manager

Caitlin Davis combines a Masters of Environmental Design from the University of Calgary with 10 years experience in web design and development and is PlaceSpeak’s Project Manager. Her responsibilities included managing product development for the beta version of the product, and conducting the technology validation trials at customer sites.

7.2 Board of Directors

7.2.1 Michael Harcourt, Chair

As former premier of British Columbia, mayor of Vancouver and city councillor, Mike Harcourt helped British Columbia earn its reputation as one of the most livable places in the world. His focus on conservation and sustainable development - and his resolve to contribute to the transformation of cities and communities around the world - has played a significant role in promoting quality of life for those in Canada and abroad.

Harcourt’s exemplary career as lawyer, community activist, and politician has been honoured with the Woodrow Wilson Award for Public Service and the Canadian Urban Institute’s Jane Jacobs Lifetime Achievement Award. He was awarded the U.B.C. Alumni Achievement Award of Distinction for contributions to British Columbia, Canada and the global community in 2008. His unsurpassed experience and depth of knowledge anchors PlaceSpeak’s board, providing an invaluable source of advice and judgement.

7.2.2 Ken Cameron

Ken Cameron has 26 years of experience in senior planning and management positions in local government in the Greater Vancouver area, most recently as Manager of Policy and Planning with the Greater Vancouver Regional District. He played a key role in the adoption of the Livable Region Strategic Plan. Ken is an Adjunct Professor and past Chair of the Advisory Council of Simon Fraser University’s Urban Studies Program, Chair Emeritus of the International Centre for Sustainable Cities, a former Trustee of the Seattle-based Sightline Institute and a member of the UBC Board of Governors’ Land Use Committee. He is a Fellow of the Canadian Institute of Planners.

7.2.3 Howie Charters

Howie Charters is the Managing Director of the Collier International Consulting in Vancouver. Howie joined Collier in 1996 and has 35 years of experience in both the public and private sector. His expertise is in the provision of strategic advisory services for the development of mixed-use commercial projects and the rationalization of complex portfolios; as well as in the development and implementation of real estate management reform and portfolio strategies. Recently he has been advising First Nations and Developers on development strategies for native lands.

7.2.4 Kim Maust

Kim is Vice-President of Bastion Development and is one of the few women in a senior role in the development industry. Prior to her position at Bastion, she spent many years with Habitat for Humanity. Kim sits on the City of Vancouver Development Permit Board Advisory Panel and the Vancouver Heritage Commission.

7.3 Advisory Board

7.3.1 Michael Fergusson

Michael is the Chief Executive Officer and founder of Ayogo, and is dedicated to the idea that playing is one of the most productive things we can do. He has been an entrepreneur and innovator on the Web for over 15 years. Michael's wealth of experience in game design has been extremely useful in helping PlaceSpeak construct its user experience.

7.3.2 Ross Paul

Ross has over 15 years of experience in building and growing Web and business software companies at the executive level across technical, sales and marketing functions. Ross served as VP of Strategic Alliances at AVG, where he pioneered strategic distribution relationships extending AVG's marketing reach to over 110 million users in over 100 countries. Prior to AVG, Ross spent almost 5 years at Websense as Director of Product Management, with global profit and loss responsibility for Websense's US \$40 million per year SaaS business. Ross was also co-founder and CTO of Onvia.com, an early pioneer of B2B e-commerce, which raised over US \$70 million in venture capital and went public on the Nasdaq stock market in a \$240 million initial offering in 2000. Ross was born in Canada and has lived and worked in North America, Europe

and Asia. He holds a BTech in Information Technology from Kwantlen University in Canada and an MBA from Imperial College London.

7.3.3 Gordon Price

Gordon Price is Director of the City Program at Simon Fraser University. He also writes, teaches and consults on urban development and planning. He served six terms as Councillor for the City of Vancouver, from 1986 to 2002, as well as on the board of the Greater Vancouver Regional District (now Metro) and TransLink, the regional transportation authority.

7.3.4 David Vogt

Dr. David Vogt is a technology innovator and leader with strong corporate and academic experience. Dr. Vogt is currently Director of Digital Learning Projects at UBC, leading a number of multisector R&D initiatives related to learning. One current project is Mobile MUSE, which convenes corporate, government and academic stakeholders in a testbed for mobile, context-aware media applications.

8: Risk Analysis

As every business venture has associated risks, this section identifies several high priority risks. These include risks to PlaceSpeak's competitive advantage, the ability of the product and marketing strategy to generate user interest, and risks to revenue projections from calibration errors in the pricing model. For each of these risks, mitigation strategies have been determined, and are discussed below.

8.1 Threats to PlaceSpeak's Competitive Advantage

Several areas of risk threaten to undermine PlaceSpeak's competitive advantage in geo-verification and geo-location capabilities. These risks include legal protection, technological inimitability and access to external providers.

- a. Another firm (e.g. Engaging Plans) in a related or non-related sector will file a patent for a geo-verification technology and the processes that use it, forcing PlaceSpeak to pay a royalty for use of the technology or to potentially abandon use of the technology altogether.
- b. Several competitors in the online consultation software sector, especially those with GIS functionality, will imitate and improve upon the geo-verification and geo-location mechanisms in PlaceSpeak, thus reducing PlaceSpeak's ability to appropriate value from its innovation.
- c. Competitors will secure arrangements with verification service providers, building value networks that exclude PlaceSpeak, and creating barriers that will prevent PlaceSpeak from accessing a full range of complementary services.

PlaceSpeak is pursuing several strategies to mitigate the risks. Patent protection is under investigation to determine what aspects of the geo-verification technology are patentable, and what areas require strengthening. The product planning process is focusing on multiple levels of technology enhancement so that by the time PlaceSpeak reaches commercialization, it will have sufficient competitive advantage to establish a market beachhead. Efforts are also underway to identify service providers and determine licensing costs and potential partnership arrangements.

This information will be incorporated into the business strategy as it evolves over the next few months.

8.2 Slow Consumer Uptake

Attracting site consumers is critical to the success of the product, from both revenue and marketing perspectives. The results of the technology validation trials suggest that levels of consumer uptake were acceptable for a beta product, but that more work in this area is required prior to commercialization. Feedback indicated that aspects of the site were confusing and difficult to use, and that this reduced the willingness of consumers to spend any time on the site. PlaceSpeak has various strategies to mitigate this risk.

- a. The privacy policy published on the site provides active reassurance that specific address information is private only to the consumer
- b. The site also provides upfront messaging that consumer information is not advertised or sold
- c. Proponent interviews will help determine the expected participation levels for different types of issues, based on historical uptake for conventional methods of consultation, and organizational expectations. From this information, PlaceSpeak can determine an uptake model as well as performance indicators for future validation.
- d. Consumer and proponent interviews are also being conducted to determine the effectiveness of the user interface in the current beta version. PlaceSpeak has commissioned a series of wire frames from a local design company that incorporates feedback received to date, and will also canvas members of its value network to help determine the most effective steps that can be taken to improve the consumer experience.
- e. The marketing planning and research efforts are investigating the effectiveness of social media networks and the best strategies for integrating social media capabilities into the product beyond the simple functionality that exists in the current beta version.

As the product evolves over the next few months, it will continue to incorporate feedback in the design and workflows.

8.3 Inappropriate Pricing Strategy

PlaceSpeak's pricing model is based on a number of factors including comparative industry models and anticipated costs versus revenue. While the research into competitor pricing confirms that PlaceSpeak's pricing is in alignment with the online consultation software industry, the relative newness of this industry introduces some risk in that the pricing model has not been market-tested for any significant period. Furthermore, the multi-tiered model, while used by successful SaaS vendors like Salesforce.com, may not achieve the expected results for each price category. PlaceSpeak continues to engage with prospective customers and research the market and industry in an effort to refine the pricing model prior to commercialization. These efforts include small-scale revenue-generating pilot projects, currently in the planning stage, in addition to discussions with a number of potential partners to determine revenue-sharing opportunities.

9: Conclusion

The consultation software industry is relatively new, with many small firms competing for a potentially large market. No single product or products have captured significant market share, creating an opportunity for PlaceSpeak. Based on industry research, while many products share basic features – including online survey capabilities, social media integration, a SaaS-delivery model, and support services – no products have been identified that replicate PlaceSpeak’s competitive advantage in geo-verification and geo-location technologies. This research confirms that a gap in the market exists for PlaceSpeak’s unique value proposition.

The five forces analysis in this report indicates that the online consultation industry is highly competitive, with threats from both new entrants and substitute products. The recommendations are for PlaceSpeak to seek out strategic alliances with partners that can provide complementary assets from both a business and technology perspective. Strategic alliances with technology partners will help bolster PlaceSpeak’s competitive advantage in geo-verification and geo-location technologies and other technical aspects of the platform. Alliances with business partners can help augment sales and marketing capabilities and assist PlaceSpeak in accessing vertical and horizontal markets that it cannot reach otherwise with its limited resources.

The investigation into key success factors in the online consultation industry suggests that first mover advantage is critical, as the market is still emerging. While no dominant design exists, the research has uncovered common aspects to the solutions and business models across the industry, which includes hosted platforms, Web 2.0 technologies, subscription pricing and support services. PlaceSpeak is building these features into its model as part of a whole product strategy. The report also identifies risks to PlaceSpeak’s competitive advantage and recommends a number of mitigation strategies.

The product has evolved considerably since the original concept was created in Fall 2010. Technology validation trials at customer sites have confirmed the value of the product, while exposing gaps and weaknesses in some of the product features and assumptions concerning social media use. Further product development will focus on strategic areas of the product, strengthening the competitive capabilities, and filling gaps identified by potential customers. In

addition, partnerships with vendors are being evaluated in an effort to increase the reach and value of the product through enhancing the firm's value network.

Research into target market segments is underway and will continue through the next 2-3 months. With sufficient funding and strategic focus, PlaceSpeak will achieve its target of commercialization in Fall 2011, in a strong competitive position. Content from this research has been integrated with a more concise business plan that will be presented to investors over the next month. In the meantime, the management team is concentrating their efforts on eliciting investor interest, meeting with potential proponents to establish revenue-generating trials, and communicating with potential partners.

Appendices

Appendix 1 Research - Potential Market

The potential market for Canada includes:

- 3,865 local governments
- 60 transit agencies
- 12 port authorities
- 100 health authorities
- 35 utilities associations
- 75 public/private utilities
- 21 airport authorities

(Canadian Almanac & Directory 2011, 164th Edition)

The US census lists 89,476 local governments including:

- 3,033 Counties
- 19,492 Municipalities
- 16,519 Townships
- 13,052 School Districts
- 37,381 Special Districts (includes agencies responsible for Natural Resources, Fire Protection & Housing)

(<http://www.census.gov/prod/2011pubs/11statab/stlocgov.pdf>)

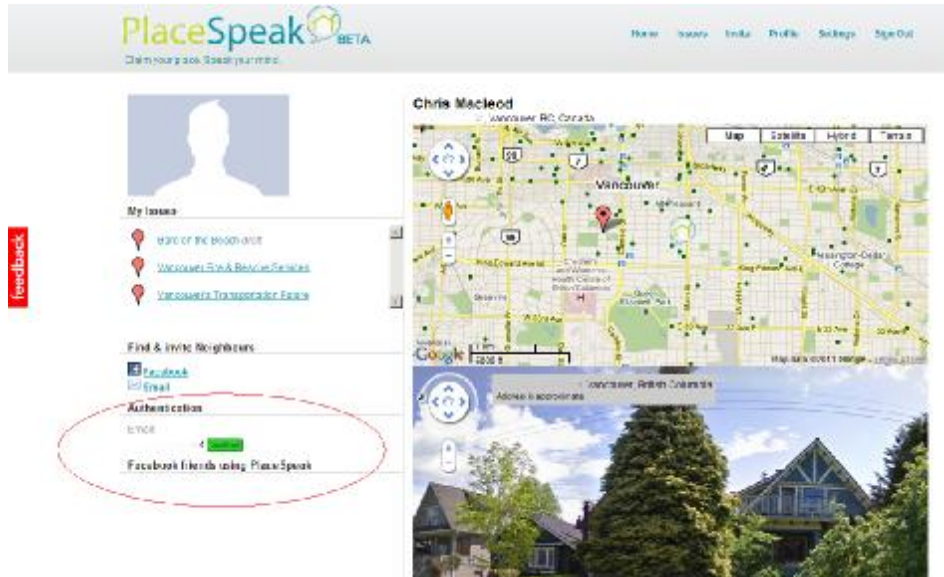
Additional US agencies and companies include:

- 1500+ transit agencies (<http://www.aptastandards.com/>)
- 4000+ airports
(http://www.faa.gov/airports/airport_safety/airportdata_5010/menu/index.cfm)
- 3273 electric utilities (<http://www.eia.doe.gov/cneaf/electricity/page/prim2/toc2.html>)
- 150+ port authorities <http://www.aapa-ports.org/Industry/content.cfm?ItemNumber=1022&navItemNumber=901>

- 52,000 real estate developers

(<http://www.manta.com/mbs4A7228000/landsubdividersanddevelopersexceptcemeteries>)

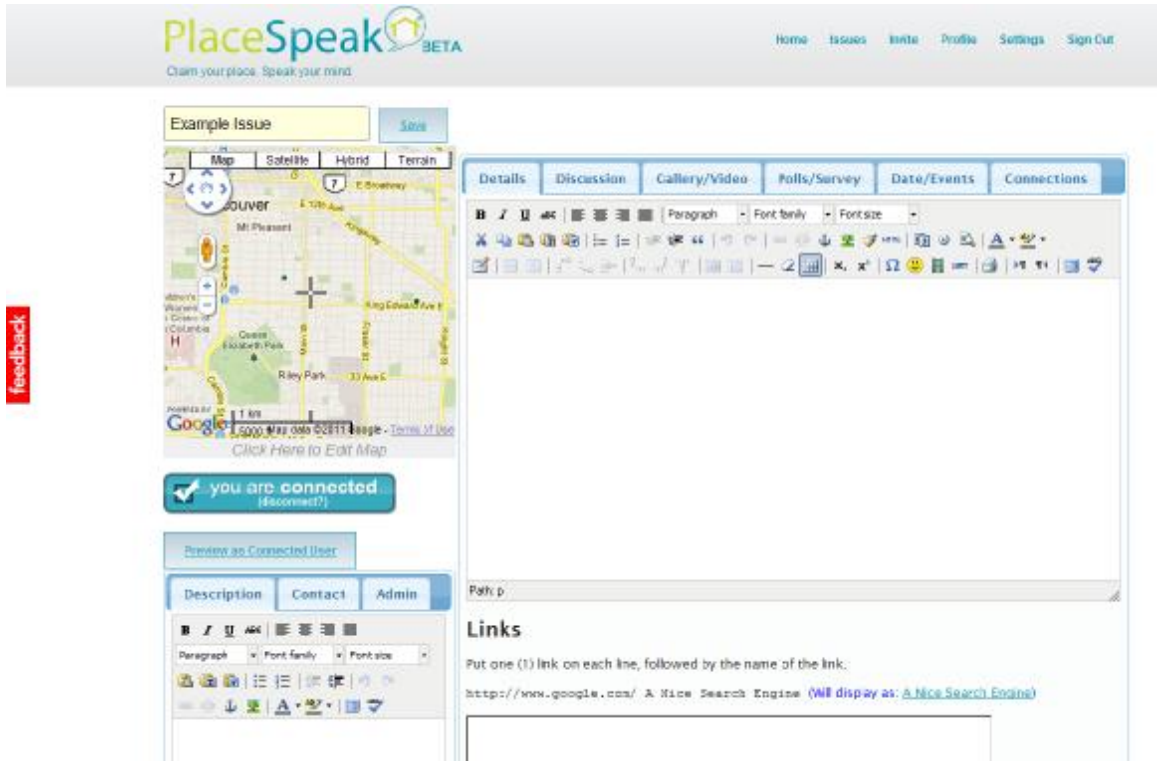
Appendix 2 PlaceSpeak User Interface



Profile page displaying connected issues, verification status and address location on map and in Google Street View. Consumer can invite other contacts using the tools on this page.



Sample issue page displaying proponent-managed content, connection status, issue and participant geo-locations.



Sample page showing the proponent tool kit for creating and managing content

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