



## Keeping Local Business Listings Fresh and Relevant

More and more people – those “born digital” as well as later adopters of Web-based processes and applications – turn to local platforms to find nearby businesses. Companies that provide these platforms must utilize advanced tools and techniques that deliver accurate, up-to-date business information and exceptional user experiences.

### Executive Summary

Millennials' increasing appetite for local information, coupled with the affordability and availability of Internet-connected handheld mobile devices, have fueled the dramatic growth of local and hyper-local online platforms and marketplaces worldwide. According to a 2015 Local Search Report, there has been a 25% increase in consumers who search for local information while they are out, away from home or at work.<sup>1</sup> The report goes on to say that the majority of these searches originate from consumers' mobile devices (52%) while they are in a car, away from home or at work.

The rise of the “local” economy is the offshoot of local online platforms and marketplaces (Web or mobile applications) for nearly everything. For example, using a local platform to find a restaurant or make an appointment with a nearby doctor has become an integral part of many digital natives' lives. At the same time, if the listings information is wrong, it is of little value to users and negatively impacts their satisfaction, plus

the reputation of local listings platform providers. According to *Search Engine Land*, “73% of people lose trust in a brand when its listings are incorrect.”<sup>2</sup> Users blame platform providers when the information they receive is inaccurate, and punish them by switching to another platform for their next local search.

This white paper is aimed at strategists at local platform companies who are constantly challenged to:

- Continually refresh the business listings on their platform.
- Differentiate themselves from the competition.
- Acquire and retain users.

Importantly, the paper proposes a framework for maintaining business listings in a well-defined, prioritized and quantified manner that allows local platforms to:

- Reduce the lifetime maintenance costs of listings.
- Improve the quality of search results, which can



## Quick Take

### When Third-Party Data Falls Short

In early 2012, a tech giant introduced its map application for local navigation and search – deciding to buy the local data from 24 suppliers. It replaced the Google Maps app with its own, which served as the default application for the business’s home-grown platform. Soon after, the company realized that providing an effective local-listings platform involves more than simply buying and uploading local data from third-party suppliers.

The company’s maps, for instance, showed incorrect/old addresses for prime locations, improper 3D image as well as inaccurate category listings. The business saw a huge attrition in its user base, and had to revert to using Google Maps in its software.

lead to higher user satisfaction and retention.

- Enable a sustainable and low-cost business-listings maintenance model.

#### Business Listings: The Prime Currency of Local Platforms

The success of local information-services providers hinges on delivering accurate, real-time information comprising business listings and local points of interest. It forms the virtual identity of an actual brick-and-mortar business. Because businesses tend to relocate, the nature of their attribute information (addresses, phone numbers, etc.) is dynamic. Making sure that all local listings are kept up-to-date with the most accurate attribute information is thus extremely critical. According to Neustar (a leading provider of real-time analytics and directory services), “Every month, online consumers perform over 3 billion local searches for nearby products and services.”<sup>3</sup> A local platform’s identity and reputation hinge on the veracity of its business listings – the source of competitive advantage for local platforms and the foundation for many tangible and intangible long-term benefits, including:

- Greater user retention.
- A stronger brand.
- Improved operational efficiency.
- A healthier bottom line.
- Higher market share.

While the need to have accurate business data online may seem obvious, the implications of incorrect listings are often elusive.

#### The Downside of Incorrect Listings

Although local-search platform providers are acutely aware of the importance of maintaining accurate, quality listings in their database, many still struggle to meet and maintain that standard – a problem that can translate into significant losses in opportunities and revenue. A recent report from Yext noted that “Outdated online listings lead to a \$10.3B loss for businesses.”<sup>4</sup>

In mid-2013, Yext surveyed 40,000 U.S. multi-location business listings. The findings were quite astonishing (see Figure 1).

#### Local Business Listings: Attribute Defectiveness

Affected Business Attributes	% of Businesses
Address Incorrect/Missing	43%
Name Incorrect/Missing	37%
Website URL Missing	19%
Phone No. Incorrect/Missing	18%
Missing Listing	14%

Source: Yext

Figure 1



The survey also found that nearly half of local-listings platform users had a strong negative reaction to incorrect local information. Over one-fifth said they “won’t trust the search platform source again.” Equally important, 15.1% said they would “look for another merchant.” And an additional 10.7% expressed anger because they had wasted their time.<sup>5</sup>

The immediate impact of inaccurate information is for the most part invisible to everyone in the ecosystem except the users, who simply move to a different platform for their next search.

Over time, this affects other stakeholders. Platforms with low user activity stymie the provider's ability to retain users and generate revenues. Listed businesses miss out when it comes to customer outreach and potential sales opportunities. Hence, to ensure benefits to both sides of the platform (users and businesses alike), providers must continually offer comprehensive, accurate data coverage. Changes in these two parameters are highly unpredictable and depend entirely on local circumstances, which eventually are a function of business locale and activity. Irrespective of whether a search platform owns or buys its data from a third party, it is very important to assume responsibility for database maintenance, which must take into account local factors. Through this white paper, we propose a maintenance approach using the "Activity-Locality Matrix (AL) and Pull-Push (2P) Framework," which places these local factors at its very core.

### The Activity-Locality Matrix

There are multiple elements that define and drive a brick-and-mortar business. These include:

- The business density of the locality and the number of businesses present per square mile.
- The number of customers who visit the business.
- The resident and transient population of the area.
- The number of rentals at the locality.
- The business's presence on social media.
- The business website.
- The mode of payment the business adopts (mobile, online, cash, etc.).
- The presence of the business on local platforms.
- The frequency of the business's online activity.

The combination of the above can be grouped into locality and activity indices, as follows (see Figure 2):

1. **Locality index:** Characterizes the area in which the business operates.
2. **Activity Index:** Characterizes the business's Internet activity and tech-savviness.

After intensive secondary research and analysis, we collected a local sample and conducted a deep-dive study (see Appendix for our methodology) to arrive at the following model. The Locality Index

## Segmenting Businesses Using the Activity-Locality Matrix

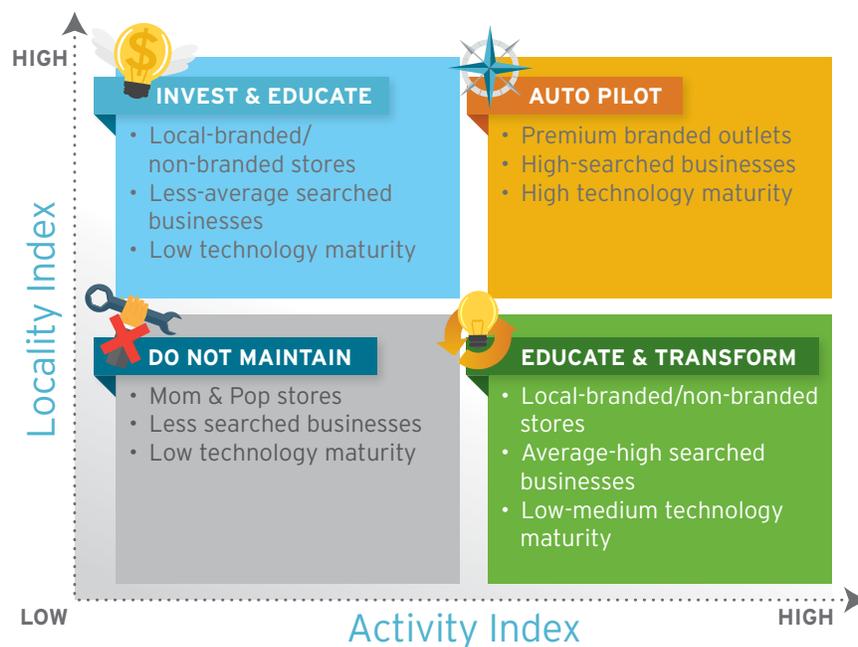


Figure 2

## Different Strategies for Different Business Segments

Segment	Maintenance Strategy
Auto Pilot	<ul style="list-style-type: none"> <li>Enable businesses to automatically update their business information online.</li> <li>Transition the operating model to an online approach where all users are knowledgeable enough to access the online platform and update their information.</li> <li>If the online activity of a business decreases, educate and enable with customized communications (e-mail, phone calls).</li> </ul>
Invest & Educate	<ul style="list-style-type: none"> <li>Feet on the street: These listings must be maintained with the help of a channel partner that can, over a period of time, visit locations and perform physical maintenance of businesses listed on the platform.</li> </ul>
Educate & Transform	<ul style="list-style-type: none"> <li>Reach out regularly via various communications channels (calls/e-mail/advertisements) to make sure businesses update their online information.</li> <li>Increase business involvement by enabling features that notify the business of any category-specific search near its location.</li> </ul>
Do Not Maintain	<ul style="list-style-type: none"> <li>These business listings do not create enough impressions for profitable maintenance.</li> </ul>

Figure 3

( $L_i$ ) and Activity Index ( $A_i$ ) are defined as a combination of multiple parameters (See Appendix). These indices can be quantitatively represented in equations as:

$$L_i = a(D) + b(P) + c(U) + \alpha$$

$$A_i = x(W) + y(M) + z(A) + \beta$$

Where a,b,c,x,y and z are local platform-dependent variables and  $\alpha$ ,  $\beta$  capture the dynamics of the platforms. Other variables are: D: Business Density; P: Population; U: User Base; W: Web Presence; M: Mode of Payment; A: Activity.

Depending on the  $L_i$  and  $A_i$  scores, the business can then be classified into four broad categories in the matrix, which we call the Activity-Locality (AL) Matrix.

Categorizing businesses enables local-listings platform providers to implement a customized maintenance strategy specific to each portion of the AL matrix (See Figure 3).

### Sample Analysis for New Jersey

New Jersey was segregated into different localities. The aforementioned equation values were applied and calculated for each. These values were then divided into four categories based on their  $L_i$  and  $A_i$  values. The final mapped plan of New Jersey is depicted in Figure 4.

## Categorizing New Jersey Businesses



■ Auto Pilot    ■ Educate & Transform  
■ Invest & Educate    ■ Do Not Maintain

Figure 4

## A Granular View

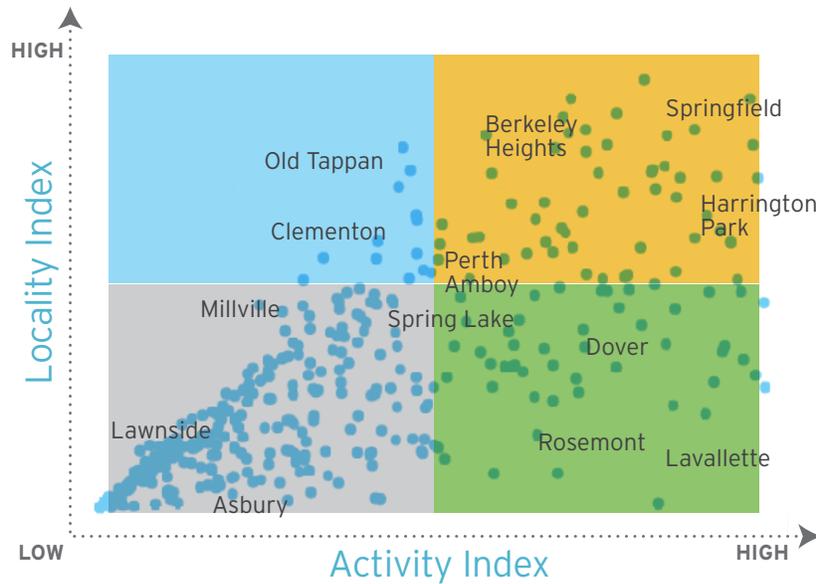


Figure 5

Based on the mapping of localities, appropriate maintenance strategies could now be applied. Businesses – represented as blue dots in the matrix – were mapped into different quadrants of the AL matrix, as shown in Figure 5.

### The Pull-Push Framework

The pull-push (2P) framework carries maintenance strategies (defined for different categories) to the implementation level. As its name suggests, the framework comprises two categories: The *pull category*, where the focus is on automation, and the *push category*, where the focus is on active collection.

#### The Pull Category

Businesses in this category believe that having a significant online presence contributes to higher sales potential. Users frequently look for local, publicly available information on these establishments. Merchants in this category can be grouped into a single segment, which we call **auto pilot**. They share the following operational characteristics:

- A good understanding of technology and its effective utilization (website, taking e-orders, having a presence on local listings platforms).
- Proactively seek to expand their digital footprint, and any platform with a large user base is attractive to them.

- Typically comprise 10% to 15% of the total number of business listings on any platform, but drive the majority of user traffic.

#### The Push Category

These businesses see limited value in sustaining an online presence, or lack the means to do so. They must be proactively approached and educated. While they are not reluctant to be listed on an online local platform, they want to be convinced, and expect some hand-holding. Businesses in this category fall into three segments:

- **Educate and transform.** These establishments are not tech-savvy; however, if they are educated on the benefits of being visible on local listings platforms, they might be open to updating their current online information.
- **Invest and educate.** This group has minimal access to technology due to various constraints (Internet penetration, cost issues, etc.), and are indifferent to maintaining an online presence.
- **Do not maintain.** The ROI for being online is not high for this group, since their user base does not intend to use technology to find them. Most of these businesses are located in the same area as their customers. Hence, it is imperative for local platform players to identify and consciously choose to not maintain this segment.

## Activity-Locality, Push-Pull (AL-2P) Framework

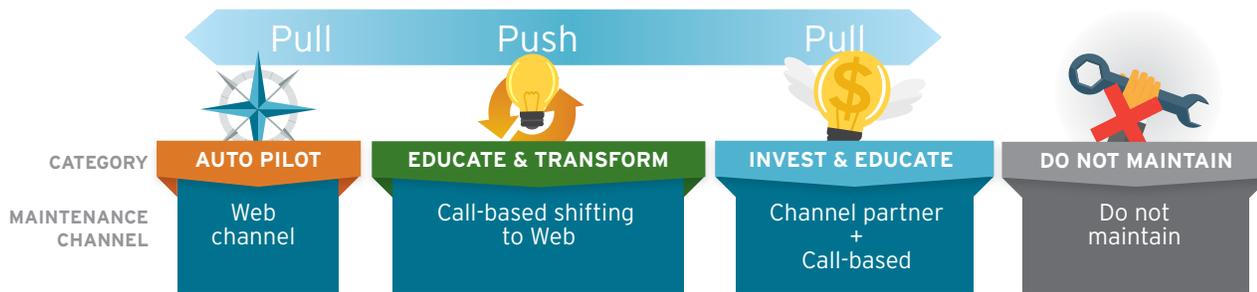


Figure 6

### The AL-2P Framework: Connecting Segments with Channels

Figure 6 shows how the AL-2P Framework maps business segments to channels based on the characteristic fit.

#### Segment A: Auto Pilot

The simple objective of the auto pilot strategy is to enable businesses to automatically update their online information on the platform. These companies are popular centers for platform providers to advertise their services and become more visible to users searching for local businesses. Efforts should be made to educate these businesses and motivate them to visit the local platform and refresh their information on a regular basis.

Also, in cases where a platform provider notices a steady decline in online activity, a customized communications strategy, implemented through regular e-mails and calls, can highlight new platform features, and convey the value of building an online presence to be more visible to more users.

These listings can be a potential revenue-generator for platform providers. Based on their maturity (in terms of services provided) and “stickiness” with users, they can consider offering value-added services at a market-driven fee to businesses listed under this category.

#### Segment B: Onboard-Educate-Transform

There are two segments of business listings that can potentially be moved to auto pilot mode. Both have low-to-medium technology maturity, and use phone calls extensively to conduct their day-to-day business. This category includes:

**Small and medium-size businesses:** While these companies are aware of the existence of online platforms, they lack the necessary resources and information to regularly update their information.

**New businesses:** These establishments want to be listed on an online platform, but are unaware of how to go about it. They require regular outreach via various communications channels (calls/e-mails/advertisements) to ensure they update their information. Platform providers should offer features that notify a business with category-specific searches in its area. This will strengthen the relationship between the business and the platform provider, and educate new establishments on the benefits of listing their business online.

#### Segment C: Invest-Educate – The Long Tail

These businesses are not tech-savvy and have little or no interest in being listed on an online platform. Their listings must be maintained with the help of a channel partner that can periodically visit their locations and perform physical maintenance on the business’s platform. Over time, businesses belonging to this segment must be educated and shifted to call-based maintenance.

### Integrated Maintenance Engine – Web, Telecalling, Field

The three segments described here should be approached methodically through the AL-2P framework, using maintenance channels to address individual segments.

Each channel should have an internal tracking mechanism that allows platform maintenance channels to communicate internally and segment the listings for accurate, comprehensive maintenance (see Figure 7, next page).

### The Web Channel

The Web channel is dedicated to the auto-pilot segment. The idea is to create a local Web space where businesses can self-update and maintain their local information. The channel should enable two-way communications so businesses and users can communicate with one other. The target of any local platform should be to onboard as many businesses as possible and maintain their listings online, taking into account the cost-effectiveness and accuracy of information.

### Telecalling Maintenance Channel

Considering the availability of businesses' phone numbers, telecalling can be an effective way to maintain any listing. However, the platform provider must build the capabilities needed to address two-way communications (e.g., set up a toll-free center number) that allow interested businesses to call and register on the platform. The channel should also use the communication vehicle to educate high-impression listings, with the following two objectives in mind:

- **Transform businesses' online behavior** by educating them on the benefits of updated listing information.
- **Engage more frequently with these businesses via phone calls** to increase their

allegiance to the online platform and transform the push effort to a pull effect for platform maintenance.

This channel should employ analytical tools to track businesses that are maturing and shift them to online maintenance.

### Field Channel Partners

Platform providers need to identify channel partners that can be locally and physically available on the ground to visit businesses and update their listings. The selection of a partner should be based on the strength and reach of its distribution network. Existing field partners of telecom, FMCG or courier companies are good starting points for operating a field channel. Channel partners can also be used to identify new local businesses that are not currently listed on the platform. They should also act as agents, and educate businesses about the online platform so they understand the value of being hosted and potentially become advocates for the platform provider.

Given the variety of maintenance channels, every business should have the option to reach out and update their presence online. Though each channel is targeted at different business categories in the AL-2P framework, certain marketing

## Integrated Maintenance Engine

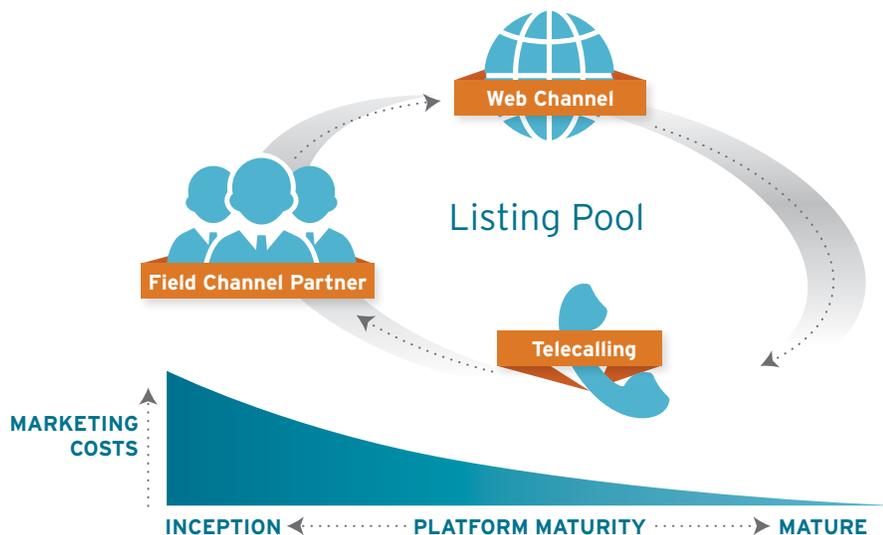


Figure 7

## The Platform-Listing Lifecycle

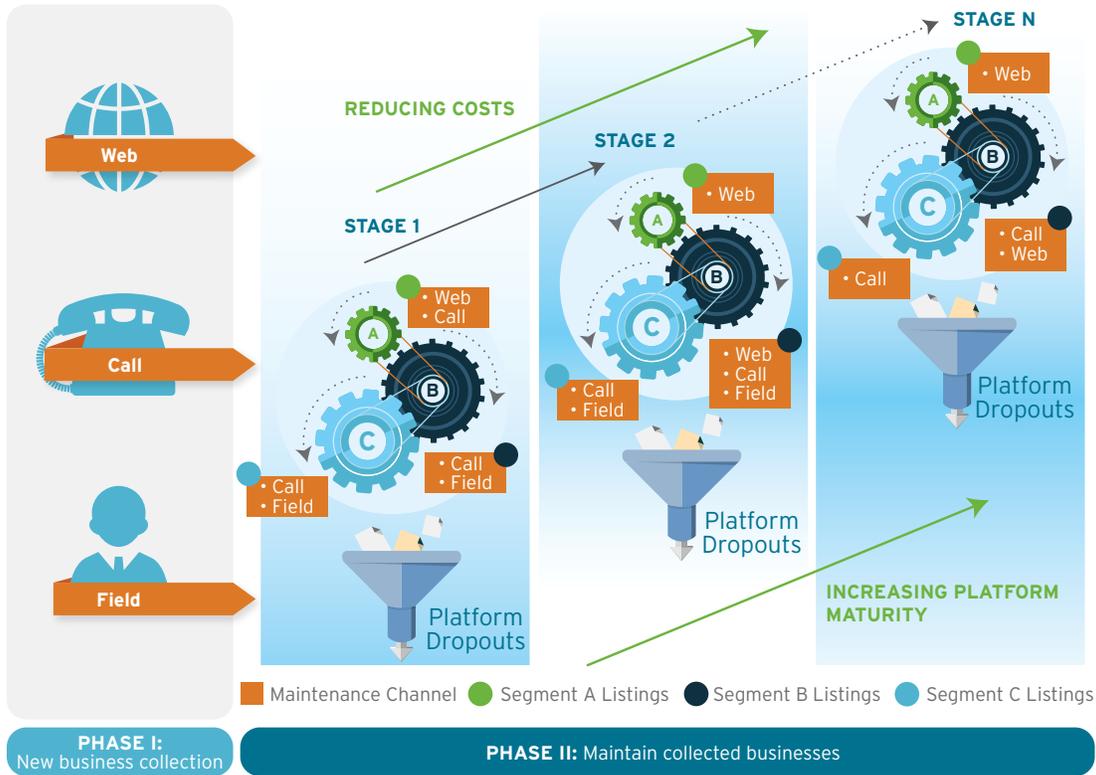


Figure 8

efforts are also required to motivate businesses to proactively refresh their online information on local platforms. These initial marketing activities should create a business “pull” towards the platform, and help sustain the presence of the businesses on that platform. Efforts can be initiated by targeting the 20% important high-end maintenance categories via the telephone and Web channel, with the remaining 80% contacted by the field team. Over time, this strategy can flip to reach 80% of categories via calls and the Web, with the remaining 20% handled by field teams. This will help make the platform cost-effective and sustainable over the long term (see Figure 8).

### Benefits of the AL-2P Framework

Using the structured approach of the AL-2P framework, local platforms can build a sustainable, long-term maintenance strategy that allows them to:

- **Define a maintenance roadmap.**
  - Helps platform providers make key financial and operational decisions that align with their overall objectives.
  - Identifies lean and efficient policies and processes for platform maintenance.

- **Solve the frequency puzzle.** The framework shifts the platform’s focus on maintenance from a short-term perspective to an overall lifetime view. It encourages and enables communications channels between businesses and the platform, which can reduce the operational costs over a two- to-three-year period.
- **Increase the cost-efficiency of maintaining listings.** Our framework helps platforms shift from push maintenance to pull maintenance over time using multiple modes of communication. This not only reduces manpower and infrastructure costs, but also makes the platform profitable by moving users to lower-cost, self-service channels such as the Web and telecalling.
- **Enable cross-sided effects.** Using our framework, platform providers can transform maintenance in an auto-pilot mode, which will eventually improve the quality of the platform’s listings, as well as users’ search experiences. This will help attract and retain users – enabling a mutual “pull” for the two sides of the platform: users influence the business to keep its online information accurate and updated, and the business steers users to more accurate local information.

## The Way Forward

A new report from Technavio indicates that location-based platforms are gaining popularity worldwide – with the global location-based search platform market expected to grow at a CAGR of more than 22% from 2015-2019.<sup>5</sup> Yet for local platforms to continue to prosper, it is imperative that they focus their attention on local data maintenance in order to gain and retain their competitive advantage, and prevail over new and existing players. For local platform leaders, the AL-2P framework provides a structured approach for data maintenance with simultaneous focus on cost, quality and coverage parameters. The framework is adaptable to local market characteristics, with built-in flexibility to expand and evolve over the platform lifecycle.

Listing maintenance is a continuously evolving process that must be managed with agility. By following the guidelines listed below, local platform providers can make the process more organized, efficient and cost-effective:

- **Build a robust ontology.** Business-listing entities should develop policies that keep their strategy aligned with the platform's current vision. Future listings can thus assimilate into one of the sub-categories of the parent category tree – reducing maintenance complexity and making it easier for users to conduct a search.
- **Use geo-based analytics.** Geo-based analytics can help identify the frequency of listings maintenance and understand the platform's pain points (i.e., areas where major user complaints surface). Geographic information systems can help generate platform trigger points to activate call-to-action activities (i.e., listings maintenance). This can also help

platform providers make the best use of their operations and marketing budgets.

- **Detect and deflect spam attacks.** Spam attacks on local platforms are a reality, and spammers can put a significant dent in a platform's reputation. To tackle this issue, platform providers should follow a two-pronged strategy. On the technology side, they should fortify their firewalls to prevent these attacks. On the processes side, they should utilize pre-cautionary mechanisms to identify spammers and take proactive measures to thwart their intrusions.
- **Have multiple maintenance channels.** Given the changing dynamics of the listings industry, relying on only a few maintenance channels will not support a platform provider for long. One channel may work for one platform but not the other. Given that every platform's needs and objectives are different, a mix of channels should be used for maintaining listings.
- **Keep it simple.** A platform's primary focus should always be on providing its users with relevant and accurate information on local businesses. Providers should be aware of what their users want at any given time, and list only the business attributes that add the most value. Having a 100% accurate listing is the ideal goal. Although this may seem difficult to achieve, it is not impossible.

AL-2P is a strategic framework that provides broad but targeted guidelines for designing, implementing and executing a local database-maintenance strategy based on a platform's characteristics and operating geographies. Using this structured approach, local platform companies can showcase business listings that are correct, current, and relevant.

## Appendix

### Definitions

*The definitions below should be interpreted in the context of this whitepaper.*

- **Local platforms** are comprised of three lines of business: local search, local map navigation and local marketplace.
- **Business listings** are the virtual snapshot of a real physical business entity. The key attributes of these listings are business name, address, contact details and geo-location.
- **Listings maintenance** consists of three parallel processes:
  - Acquire non-existent or new business information.
  - Update existing business listings.
  - Truncate involves identifying and removing non-operational businesses from the database.

## AL – 2P Analysis Methodology

Activity – Locality index:

$$L_i = a(D) + b(P) + c(U) + \alpha$$

$$A_i = x(W) + y(M) + z(A) + \beta$$

Where  $a, b, c, x, y$  and  $z$  are local platform-dependent variables and  $\alpha, \beta$  capture the dynamics of the platforms. Other variables are denoted as follows:  $D$ : Density;  $P$ : Population;  $U$ : User Base;  $W$ : Web Presence;  $M$ : Mode of Payment;  $A$ : Activity.

While defining the above equation, it was assumed that:

Both the Locality and Activity indexes appear as a combination of the following parameters:

Locality Index	Activity Index
<ul style="list-style-type: none"> <li>• Number of businesses</li> <li>• Business density/sq. km</li> <li>• Road traffic density</li> <li>• Footfall</li> <li>• Resident population</li> <li>• Transient population</li> <li>• Registered user base</li> <li>• User activity                             <ul style="list-style-type: none"> <li>&gt; Number of impressions</li> <li>&gt; Number of searches</li> <li>&gt; Number of transactions</li> </ul> </li> <li>• Rate/Sq. Ft.                             <ul style="list-style-type: none"> <li>&gt; Rent</li> <li>&gt; Own</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Web presence                             <ul style="list-style-type: none"> <li>&gt; Business website</li> <li>&gt; Social media presence</li> </ul> </li> <li>• Mode of payment                             <ul style="list-style-type: none"> <li>&gt; Payment by cash, credit card or rewards points</li> <li>&gt; Mobile payment</li> </ul> </li> <li>• Local platform presence</li> <li>• Frequency of online activity                             <ul style="list-style-type: none"> <li>&gt; Daily, weekly or monthly</li> </ul> </li> </ul>

After finding the correlation on multiple data sets, we discovered that certain parameters are dependent on others, while some stand alone as independent variables.

**Dependent variables** are highly correlated, and offer the same output to their respective index:

- Road traffic density, footfalls and user activity
- Population (resident and transient) and number of businesses
- Web presence and population

- Internet bandwidth is constant at the city level.
- For most local platforms, this model holds true. However, it can be customized based on a platform's presence and specific requirements.

The equations are the result of a study of multiple dependent and independent variables, their association with one another, and other dynamic factors that come into play.

- Frequency of online activity, footfalls and user activity

### Independent variables:

- Business density per square mile
- Local platform presence

These variables were then applied to each location, and the values for  $L_i$  and  $A_i$  calculated. The two values were then mapped to the AL matrix to find the four broad categories and their respective maintenance strategies.

## Footnotes

- <sup>1</sup> "10 Trends & Tips To Consider In Creating A Winning Mobile Strategy For Local Search & Marketing," *Search Engine Land*, March, 2015. <http://searchengineland.com/10-trends-tips-to-consider-in-creating-a-winning-mobile-strategy-for-local-search-marketing-215335>.
- <sup>2</sup> "Survey: Consumers Blame Brands For Bad Location Data," *Search Engine Land*, March, 2014. <http://searchengineland.com/survey-consumers-blame-brands-bad-local-data-186224>.
- <sup>3</sup> "\$10.3B Is Lost By Businesses With Missing Listings," *Yext*, March, 2013. <http://www.yext.com/blog/2013/03/10-3b-is-lost-by-businesses-with-missing-listings/>.

<sup>4</sup> Ibid.

<sup>5</sup> "Global LBS Market, 2015-2019," June, 2015. <http://www.marketwatch.com/story/global-lbs-market-2015-2019-2015-06-29>

## About the Authors

*Amit Morya is a Senior Manager with Cognizant Business Consulting's Communications & Technology practice. He is a certified project management professional, and has ten-plus years of strong consulting experience in the areas of product and program management, IT strategy and digital transformation. During his tenure, Amit has managed multiple consulting engagements with industry leaders in the online, GIS and ISV domains. He holds an MBA from the Indian Institute of Foreign Trade, Delhi, and a B.Tech from Indian Institute of Technology (BHU), Varanasi. Amit can be reached at [Amit.Morya@cognizant.com](mailto:Amit.Morya@cognizant.com).*

*Viswas Singh is a Senior Consultant with Cognizant Business Consulting's Strategic Services practice. He has five years of experience working in IT performance improvement, IT strategy, business process reengineering, cost optimization and related transformation initiatives. Viswas has experience working with clients across banking, insurance and technology sectors. He holds an MBA from Indian Institute of Management, Indore, and a bachelor of engineering in computer science and engineering from Birla Institute of Technology, Mesra. Viswas can be reached at [Viswas.Singh@cognizant.com](mailto:Viswas.Singh@cognizant.com).*

*Abhinav Nigam is a Consultant with Cognizant Business Consulting's Communications & Technology practice. He has four years of experience in IT strategy, IT performance improvement, technology and management consulting. His functional expertise includes program management, business process design and reengineering, and business analysis. He holds an MBA from the Indian Institute of Management, Indore, and a bachelor of technology in computer science from Dhirubhai Ambani Institute of ICT. Abhinav can be reached at [Abhinav.Nigam@cognizant.com](mailto:Abhinav.Nigam@cognizant.com).*

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**World Headquarters**  
500 Frank W. Burr Blvd.  
Teaneck, NJ 07666 USA  
Phone: +1 201 801 0233  
Fax: +1 201 801 0243  
Toll Free: +1 888 937 3277  
Email: [inquiry@cognizant.com](mailto:inquiry@cognizant.com)

**European Headquarters**  
1 Kingdom Street  
Paddington Central  
London W2 6BD  
Phone: +44 (0) 20 7297 7600  
Fax: +44 (0) 20 7121 0102  
Email: [infouk@cognizant.com](mailto:infouk@cognizant.com)

**India Operations Headquarters**  
#5/535, Old Mahabalipuram Road  
Okkiyam Pettai, Thoraiyakkam  
Chennai, 600 096 India  
Phone: +91 (0) 44 4209 6000  
Fax: +91 (0) 44 4209 6060  
Email: [inquiryindia@cognizant.com](mailto:inquiryindia@cognizant.com)