Yelp Partners With Health Departments to Improve Food Safety

Darryl Booth, MBA

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The NEHA Technical Advisors’ Corner was created to provide readers with relevant, timely, and useful information generated from the NEHA Technical Advisors. This feature will be printed occasionally throughout the year as content is made available to NEHA from the Technical Advisors.

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It’s not often that a successful Silicon Valley startup invites local health departments to enhance its core product … a product so visible that it garners national attention and yet is entirely compatible with the environmental health industry’s mission to promote safe food. This is exactly what Yelp, an online review forum that connects people with local businesses and services, has done.

Yelp, founded in 2004, maintains a worldwide inventory of businesses, including restaurants. Consumers use Yelp to find nearby businesses, confirm hours and location, read reviews and rankings, and post their own opinions. Ultimately, Yelp reviews can drive new business to a well-reviewed restaurant. Those reviews might also prompt customers to rethink their favorite Saturday night dining destination.

Though opinions about social media can differ, many forward-thinking health departments already use Facebook, Twitter, YouTube, and others to get their messages out. Simply search Google for “health department YouTube” to get a sense of it. Utilizing Yelp to convey restaurant inspection results is a logical next step in this growing practice of using social media to inform the public.

Many already consider Yelp an ally in food safety. At its foundation, the popular Web site and mobile app already promote well-run restaurants. While the reviews are not, strictly speaking, oriented to food safety, customer observations in the dining area can correlate to practices behind kitchen doors.

According to a 2012 study by two Berkeley economists, Yelp scores can directly impact a restaurant’s reservation rate (Ferenstein, 2012). This economic reality can prompt positive operational changes, including matters concerning some foodborne risk factors.

The LIVES Standard

In a 2013 media release, Yelp announced the LIVES standard (http://officialblog.yelp.com/2013/01/introducing-lives.html). LIVES stands for Local Inspector Value-Entry Specification and is a private/public initiative to integrate official inspection scores with the user-generated reviews at Yelp (Figure 1). The program’s purpose and intent is to make health department inspection scores visible by augmenting the user-generated reviews and ratings with official inspection results and even violation details (Figure 2). “Yelp can generate Web traffic that is more than 150-fold over the numbers generated by local health department Web sites,” explains Yelp Director of Public Policy Luther Lowe.

In addition, since the LIVES standard and the data are open (i.e., they are not “owned” by Yelp), the initiative is expected to generate
interest by other app developers as they rush to find new and interesting ways to package and combine the inspection data.

Implementing the LIVES Standard
To manage the expected technical issues that often accompany an initial rollout, Yelp engineers handpicked health department partners from among those with the capacity and interest to engage. Health departments can request to be added to the queue by sending an e-mail to healthscores@yelp.com.

At any time, a health department may publish their data according to the LIVES standard (www.yelp.com/healthscores), even without Yelp’s engagement. In practical terms, this means working with the health department’s software vendor or internal IT to design queries and establish data flows according to the published standard.

The LIVES standard calls for several files. Each file has a required format and purpose. The business file catalogs all the businesses the health department intends to share. The inspections file holds the inspection history and score and the violation file contains the details behind the inspection result. The remaining files, feed_info and legend, wrap things up by declaring the name of the health department, the extraction date, and how to interpret the scoring. The health department e-mail is also included to facilitate customer feedback. These files constitute a snapshot of the inspections broadcast by the health department (Figure 3).

By creating these files and placing them in a publically accessible part of the health department’s Web site, the data become available to Yelp (and visible to other interested parties). Yelp, in particular, intends to match health department facilities to their own record of businesses in order to augment the business record.

Anticipate the Challenges
Interviews with early LIVES standard adopters Los Angeles County, city and county of San Francisco, and New York City health departments yielded the following challenges and advice.

Getting the Filter Right
A filter is just a rule to exclude blocks of facilities, inspections, and violations from LIVES reporting. Complaint investigations, normally,
should be excluded (or filtered). For example, some inspection history may be interesting, but too much history can be distracting or misleading. Two years of history seems to be a good fit. Some health departments may choose to expunge inspection history following a change of ownership, for example.

Start by roughly correlating the food permits to Yelp records. Search for a few facilities at www.yelp.com. If Yelp doesn’t have a good match for classes of facilities (e.g., mobile food facilities), then exclude that block of businesses.

**Business/Facility Matching**

Matching the health department’s record of each permitted facility to the corresponding Yelp businesses is central to the whole exercise. This is not easy to automate since the health department’s name and address for each facility may differ from those maintained by Yelp. If the health department provides the restaurant’s latitude and longitude, Yelp engineers can help pinpoint and match the facility using certain heuristics. Otherwise, matching on address and name has a 10% failure rate. This can require some special handling or even omitted results.

In Los Angeles County, for example, the health department permits and inspects every food vendor at Dodger Stadium. The Yelp system doesn’t get that granular. The Yelp record might show one overall review of Dodger Stadium and a few of the marquee food spots, but no one-for-one correlation to the specific permitted/inspected snack bars within the stadium. In these cases, the nonmatches may be ignored, added to Yelp, or consolidated.

**Scoring/Grading**

The LIVES standard format assumes a discrete result for every inspection. While grading and placarding may be controversial, an equivalent “conclusion” must accompany every inspection. So, be prepared to deliver a score (i.e., a numeric value) and a scale (e.g., 100–90 = A, 89–80 = B, etc.). The score can have any meaning and the scale is yours to define (e.g., 0–1 = green, 2–3 = yellow, 4–99 = red).

The LIVES standard correctly reflects the fact that some inspections (e.g., follow-up inspections) do not result in a score. The score may be left blank in these cases (although it might be best to exclude those inspections from the onset).

**Pull vs. Push**

One of the interesting things about Yelp’s approach is its focus on “pulling” the data instead of asking health departments to “push.” The difference is akin to mail being picked up by the postal carrier at your mailbox versus driving to the post office to drop off letters. Picking up is better.

In order for Yelp and others to pick up health department data, the data will have to be visible to the world via a Web site. Ideally, this is a portion of the health department’s existing Web site (e.g., www.myhealthdepartment.gov/LIVES). If the existing Web site can’t handle it, other arrangements for hosting the file need to be made.

The data are picked up daily by Yelp.
Automating the Process
The preferred method is automated. That is, health departments can’t expect staff to remember to generate these files and transfer them to the Web server. Set the expectation from the onset that this is an automated data flow without any routine human interaction.

Customer Feedback
There’s something to the idea of presenting one’s work product for general review. It changes the conversation, at least. One should expect a few phone calls with comments like, “Yelp shows a yellow when my inspector told me I’d received a green. ‘You’re killing my business!’”

These can be managed by offering a reinspection service and by quickly correcting any legitimate errors. In fact, the LIVES standard prompts for an agency-provided customer service e-mail address and Web site that can be used to channel questions and concerns to the proper staff. After all, all parties involved want to get the information right!

These few challenges are easily overshadowed by the new awareness of the health department’s daily work to protect consumers and the very real motivator for better practices in retail food facilities.

Bringing It Back to Safe Food
Amplifying the health inspector’s work through Yelp drastically increases awareness, making consumers and operators more mindful in their choices. Well-run facilities should be rewarded for their investment and healthy practices.

Also, for those health departments enrolled in the Food and Drug Administration Voluntary Program Standard 7, this project augments the efforts under industry and community relations.

It is the responsibility of the operators to provide safe food. The health department serves its role through education, assessment, and enforcement. Making the consuming public a partner through education and awareness completes the cycle.

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References

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