What Are They Looking At?

New Technology Provides Deeper Insights Into Shopper Behavior

These days, you are hardly alone when shopping through your local grocery store or pharmacy chain. Chances are, your movements are being tracked, usually through video surveillance. The video cameras mounted at several locations throughout the store exist for several reasons. For instance, video surveillance is an important part of loss prevention and helps reduce instances of shoplifting by instilling fear in would-be shoplifters, and also by serving as evidence in shoplifting prosecution cases. Video surveillance also reduces internal theft by employees, reduces frivolous worker compensation claims, and contributes to a safe working and shopping environment.

However, one major and increasingly growing function of such cameras is to provide shopper insights. Typically, these surveillance cameras on their own do not provide shopper insight data. Camera extensions, attachments, and software are often attached to existing store cameras to provide shopper data. One company that uses video surveillance for shopper insights is CognoVision.

CognoVision helps companies measure the effectiveness of in-store marketing and understand

shopper behavior. Using small camera sensors and computers, the company's anonymous face detection and people tracking software gathers data on how people watch ads and how they move within a store. The technology can determine how many people looked at advertising, how long they looked for, their gender, how they move within a store, and can also adapt advertising to cater to viewers in real-time (i.e. an ad can be changed based on the gender of the viewer in-front of a screen). This information can be used to dramatically improve the effectiveness of ad campaigns, increase product sales and advertising revenue, optimize retail execution and reduce operational costs. In December 2009, CognoVision was named as Canada's 2009 Innovation Leader by the Canadian Innovation Exchange (CIX).

In one case study, CognoVision installed surveillance cameras and other equipment in a large national grocery chain store, collecting data from three locations using 42 screens that were displaying content using digital signage technology. The screens ran anonymous video analytics to provide data on number of people engaged with each campaign, how long they looked for, and demographics. These monthly reports were used to provide direct feedback to plan and assess the effectiveness of campaigns on a regular basis. This particular program was so successful that the grocer expanded the digital signage network to 30 more locations in Q2 2010, all screens AVA-enabled.

Technology in Shopper Marketing and Insights has several advantages related to people counting and is used to determine:

1. Total number of shoppers in store by time of day
2. Peak sales opportunities hours
3. Forecast number of required sales associates

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by time of day

4. Correlate traffic data with POS information to understand visitor to buyer conversion.
5. Monitor impact of promotional activities on traffic patterns

The technology also has a queue tracker to determine:

1. Queue Size by time of day
2. Average customer wait time
3. Enable custom real-time alerts based on queue size or wait times.
4. Minimize or eliminate bottleneck.
5. Improve customer service
6. Optimize staff scheduling
7. Reduce queue dropout rates

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Perhaps of even more interest are the heat maps that can be generated from the surveillance cameras. These heat maps determine the most visited areas and aisles of the store in red and least visited sections of the store in blue. Thus, it is possible to craft and monitor the impact of marketing initiatives or store layout changes on traffic flow.

CognoVision's fully automated AIM (Anonymous Impression Metric) is an audience measurement system that has been optimized for use in digital signage networks. Using proprietary face detection and tracking technology to find viewers' faces captured by digital optic devices, our AIM system integrates with existing digital signage networks - adding powerful metrics and functionality to your network.

For privacy purposes, the AIM system is designed to ensure that the detected and aggregated data cannot be associated or otherwise linked with any specific individual. No personally identifiable information is ever collected, only anonymous data is aggregated to provide meaningful metrics.

CognoVision's AIM platform empowers provides business intelligence that allows customers to understand the following audience characteristics for displays:

- **Actual Impressions** - The number of people who look at displays
- **Length of Impressions** - How long people look for
- **Potential Audience Size** - The number of people who walk by
- **Dwell Time** - How long people stay near displays
- **Anonymous Demographics** - Demographics of audience (gender and age bracket)

CognoVision's AIM system unleashes the power of digital signage by providing crucial measurement information that permits an understanding of how media is performing. Utilizing these metrics can help retailers, brand marketers, and advertisers realize many benefits including:

- Understanding ROI
- Understanding ROO (Return on Objectives) such as changes in consumer behavior
- Determining the best locations for displays
- Tailoring screen content based on audience characteristics
- Providing proof of performance metrics for displays
- Understanding audience engagement levels
- Comparing metrics with industry standards including CPM, CPP, and GRP
- Offering pay-per-impression billing for achieved audience targets
- Optimizing advertising based on accurate audience measurement data

CognoVision's portfolio of proprietary core technologies has a diverse range of applications for many industries. The technologies include the following:

- Automatic demographic analysis software [for retail environments]
- Customer behavior analysis tools [for retail, banking, and food outlets]
- Facial feature detection software [for fashion and cosmetics retailers]
- Unobtrusive vision-based user interface technologies

CognoVision, on behalf of POPAI, will be holding a webinar on June 24, 2010 at 3:00 pm EST to talk more about how it uses technology to gather shopper insights. Be sure to attend this webinar! Visit www.popai.com to learn more.