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# SEEING IS BELIEVING: THE POTENTIAL OF IMAGE ANALYTICS TO ENHANCE CUSTOMER EXPERIENCE



**WNS**

Extending Your Enterprise

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Consider these statistics across social media channels for a single day: people spend 1 billion hours on YouTube;[1] on Instagram, 95 million photographs are uploaded;[2] on Facebook, 60 million emojis are used.[3]

The exponential growth in the sharing of images is deeply psychological. It is easier to express a moment as a picture than in words. Pictures capture more information and require less skills and effort than writing. The human brain processes visual content more quickly.

According to MIT,[4] the human brain can process entire images that the eyes see within 13 milliseconds. It explains why people find visual content more engaging. This is one of the key reasons why a social site such as Instagram has become popular quickly in terms of user engagement.[5]

That it is fatal for businesses to ignore this wealth of visual data would be stating the obvious. By 2021, the global image recognition market is expected to touch USD 38.92 Billion.[6] The global video analytics market is expected to grow to USD 8.55 Billion by 2023.[7] As image analytics continues to develop, companies will see value in spending more dollars on this technology. Let's take a look at some of the industries where image analytics is already delivering immense value.

[1] https://techcrunch.com/2017/02/28/people-now-watch-1-billion-hours-of-youtube-per-day/
[2] https://www.wired.co.uk/article/instagram-doubles-to-half-billion-users
[3] https://www.adweek.com/digital/facebook-world-emoji-day-stats-the-emoji-movie-stickers/
[4] http://news.mit.edu/2014/in-the-blink-of-an-eye-0116
[5] https://www.forbes.com/sites/jaysondemers/2017/03/28/why-instagram-is-the-top-social-platform-for-engagement-and-how-to-use-it/#50a9e86636bd
[6] https://www.marketsandmarkets.com/PressReleases/image-recognition.asp
[7] https://www.marketsandmarkets.com/PressReleases/iva.asp

## Saying More With a Single Click

Consumer Packaged Goods (CPG) companies spend billions of dollars in sales and merchandizing strategies, but do not reap its full benefits due to several challenges related to execution at the store level. This could be due to insufficient shelf monitoring, unreliable store checks or limited resources to conduct audits at stores.

By leveraging image analytics,

companies are now tackling such challenges efficiently in the following ways:

- In-store operations are effectively monitored and tracked using shelf images to get real-time key performance indicators such as share of shelf, on-shelf availability, stockouts, pricing changes and compliance metrics

- Field sales representatives are

able to cut down time spent in conducting manual store checks by using image recognition technology, and are expanding their store coverage and tackling more critical issues at stores

By providing real-time, accurate in-store insights, image analytics is becoming the game-changer in optimizing retail execution and recovering lost sales.

## Advantage Facial Recognition

Apart from gathering insights from social media, businesses are applying image analytics across the customer journey for outcomes ranging from personalized marketing to improving customer experience.

For example, Singapore's Changi airport is replacing passport checks with facial recognition on a trial basis.[8] This is in addition to the airport's already existing facial recognition for self-service check-in, bag drop, immigration and boarding. Facial recognition can also be applied to trace passengers who missed their last call to board the flight.

The U.S. Transportation Security Administration (TSA) is deploying new scanners at airports across the country.[9] This will allow TSA to virtually unpack bags and ease the queues at security checks. Such applications will help improve the customer experience, which has been a concern lately for the airline industry.[10]

A leading retail company is developing a facial recognition system to gauge customer dissatisfaction through their expressions and movements.[11] A California restaurant chain is implementing facial recognition systems to activate customers'

loyalty program without the need to swipe their cards as they approach in-store kiosks.[12] The system will also display historic meal preferences to reduce the time to place orders.

Facial recognition is also being enabled to validate customer identity at retail stores by card providers such as Mastercard. This is expected to reduce cart abandonment at the payment stage by 70 percent as it will eliminate the challenges around one-time passwords sent through text messages.[13]

[8] https://www.bbc.com/news/technology-43962881
[9] https://www.wired.com/story/tsa-tests-ct-scanners-airport-security/
[10] http://www.airport-world.com/news/general-news/6284-new-study-reveals-that-poor-customer-service-levels-are-damaging-airlines.html
[11] https://www.retaildive.com/news/report-walmart-developing-facial-recognition-tech/447478/
[12] https://www.retailwire.com/discussion/facial-recognition-software-comes-to-loyalty/?utm_source=Listrak&utm_medium=Email&utm_term=http%3a%2f%2fwww.retailwire.com%2fdiscussion%2ffacial-recognition-software-comes-to-loyalty%2f&utm_campaign=Today+on+RetailWire%3a+Alexa-enabled+glasses%3b+Kohl%27s+omni+progress%3b+Facial+recog+loyalty+-+1%2f9%2f18
[13] https://www.pymnts.com/mastercard/2018/biometric-authentication-facial-recognition/

The insurance sector is using image analytics to improve the customer experience of motor insurance claims. A leading insurance provider in the U.S. has a claims process wherein customers can upload pictures of their damaged vehicles.[14] The company analyzes the pictures and processes claims. This eliminates the need for physical verifications which is both time-consuming and effort-intensive.

For risky assessment areas such as rooftops, drones can help reduce liability from workmen injuries which cost companies an average of USD 910,000 per incident in the U.S.[15] Expedited claims processing is particularly important when there's a natural disaster. For example, insurance companies used drones to enable faster assessment of losses left in the wake of hurricane Harvey.[16]

Drone image analytics solutions are also helping automate the identification of risk factors, extent of damage and claims estimation reporting for insurance companies. By combining structured and unstructured claims data with images and other data sources, deep learning models and machine learning algorithms are being applied to solve image classification problems. The results are then used to feed underwriting models for proactive risk assessment, and validate property insurance claims for rooftop damages caused by hailstorms and other weather-related incidents. Such use cases have delivered more than 95 percent accuracy in claims assessment and delivered USD 30 Million in annualized savings for a global property and casualty insurance company.[17]

[14] https://www.allstate.com/claims/quick-foto-claim.aspx

[15] https://www.propertycasualty360.com/2018/07/05/hurricane-season-drives-mass-adoption-of-insurance/?slreturn=20180709015047

[16] https://www.wired.com/story/houston-recovery-drones/

[17] https://www.wns.com/insights/videos/video-detail/583/drone-imagery-analytics--re-shaping-claims-assessments-for-pc-insurers

## A Source of Authentic Data

Image analytics technology is maturing fast. Like any technology, it will go through its own set of challenges. Privacy is a question that needs to be addressed, particularly with rising concerns of customers and tightening government regulations. However, the business case for image analytics is too strong to ignore.

Companies in the U.S. alone spend USD 10 Billion on third-party audience data every year.[18] Third-party data, with its limitations of accuracy, form the basis of large personalized marketing campaigns. With image analytics, businesses will no longer be solely dependent on faceless customer data and percentages.

In the age of image analytics, data will be of the actual customer, not numbers on a survey. The data will be authentic and derived from first-hand sources such as facial expressions. It will be real-time, captured as the customers experience something, often even before they have made the purchase.

Image analytics indeed has the potential to bring forth a new generation of insights where seeing is believing.

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[18] https://www.criteo.com/insights/companies-spend-20b-data-solutions/

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