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Xdroid

2020 EUROPEAN VOICE AND FACIAL ANALYTICS TECHNOLOGY INNOVATION LEADERSHIP AWARD

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Background and Company Performance

Industry Challenges

As brands and service providers adjust to the new landscape of consumer expectations and digital-first interactions, these organizations are experimenting and adopting new ways to improve customer experience and brand equity. Organizations are shifting their internal perceptions away from viewing contact centers as only cost centers low on the priority list for investments and attention, and towards seeing them as singular opportunities for crafting and improving engagement with a personal touch.

With immense amounts of information available online and numerous engagement channels from which to choose, consumers expect that live agent interactions should deliver the highest quality of service and provide more information and capabilities than self-service options. Contact centers and agents must then field the consumer and the interaction with more speed and specificity than previously expected. To drive value in the contact center environment, the vendor landscape (including point solutions and full-stack providers) currently focus research into artificial intelligence (AI)-based features, workforce optimization platforms, and analytics applications.

Applying an analytics solution to support agent training, real-time agent assistance, and back-end analysis helps reduce cost areas, improve handling and upsell capabilities and overall productivity. To that end, organizations seek to gain significant insights into the workings of their contact centers and agent conversations, and thus learn how and where to improve the quality and performance of individual agents and the entire contact center. Processing agent conversations through analytics engines (to quantify factors such as language usage, emotional resonance and response, and cadence) yields a set of key performance indicators (KPIs) for agents, managers, and contact center operators to gauge success factors and make adjustments.

With the European Union's General Data Protection Regulation's advent, additional national level regulations, as well as robust activity in European Courts on data and privacy-related issues, security and compliance concerns are of peak interest. Contact centers, especially for sensitive topic areas such as financial services, invest in measures to ensure compliance and assuage public concerns. Consequently, many contact centers invest to improve cloud technology and must ensure that on-premise or cloud solution deployments meet stringent standards. Security and confidentiality issues are of critical concern, to safeguard customer information and brand equity as well to avoid penalties.

In the wake of the massive disruptions arising from the COVID-19 pandemic, contact centers (and workplaces of all types) face new challenges to operations and training. Reorganizing infrastructure and resources to maintain operations can prove costly, and new investments may be deferred.

However, many organizations are embracing the change to fully or nearly full remote operations and contact agents are now a more critical touchpoint than ever before. Ensuring remote agents receive appropriate and up-to-date training is essential, and contact center operators must adapt to new ways of managing employees and gauging

productivity. Indeed, distance learning, remote onboarding, and remote coaching are key for operators to demonstrate renewed value in the new context.

Technology Leverage and Business Impact of Xdroid

Founded in 2008, Xdroid brings together speech analytics scientists and contact center veterans in business intelligence to develop exceptional technology to improve agent performance. With a presence in numerous countries across the globe, Xdroid serves customers in diverse segments and supports more than 20 languages in its innovative solution set.

A Foundational Language Engine of Singular Ability

Xdroid's portfolio builds upon a powerful language engine, leveraging deep neural networks (DNN) and machine learning algorithms to process highly accurate speech-to-text and keyword recognition that truly helps operators to understand and optimize performace. Trained exclusively on real contact center inputs, the language engine's foundation is attuned to the potential crosstalk, interference, and linguistic patterns of contact centers.

Xdroid's processing engine includes two parts; the fully acoustic model, which traces silent periods, speaker volume, speech rate, and emotion or speech styles. The other part is a speech to text and keyword recognition part that creates a highly accurate transcription.
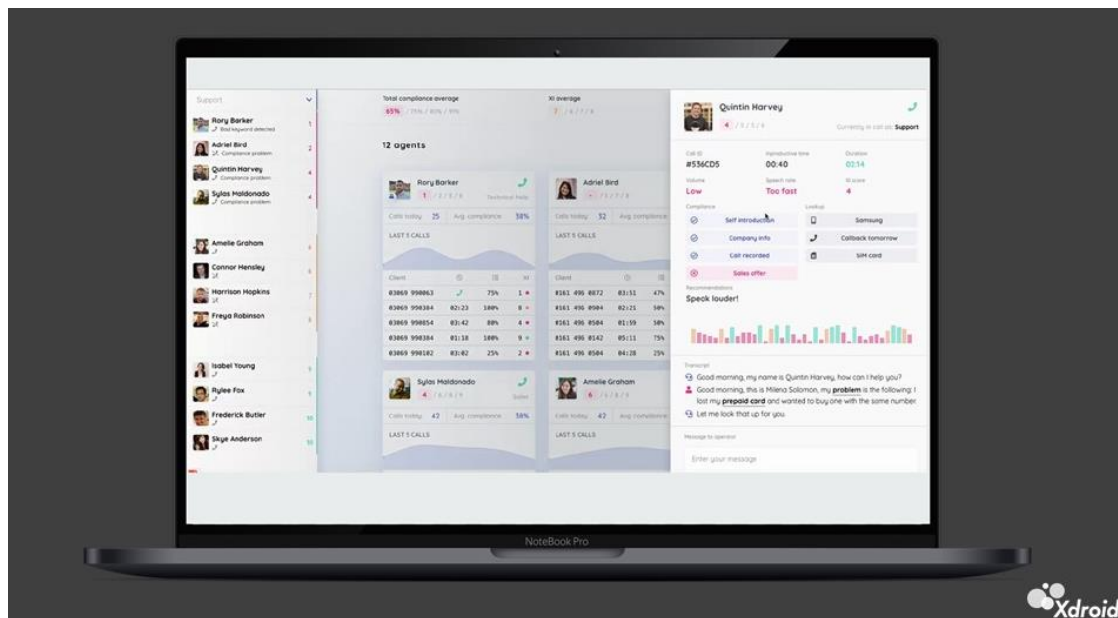
The company developed an automated record innovation to allow the language engine to capture and analyze portions of a sentence, with notably improved accuracy of annotation and speaker separation. This tool automatically reorients its sentence sampling so that if the first few words are unclear or obscured by crosstalk, rather than purging the entire sentence, it shifts a few words over to the clear portion and establishes context, producing a viable result in 95% of lab environment training. With this accurate annotation in the engine, it massively reduces the amount of time and volume of sample inputs required to train the engine.

More than simply transcribing to text, Xdroid built the language engine on a DNN base; the latest generation of machine learning algorithms that efficiently use processing power and performance to yield real-time results and provide real-time suggestions to agents. Xdroid commercializes the solution in two flavors: an online real-time *AgentAssist*, and an offline *VoiceAnalytics,* which uses the same hardware to process recordings at a later time. The real-time *AgentAssist* advises agents in the conversation with pop-up suggestions and alerts, automated lookup functions to deliver quick access to relevant information, making calls compact and increasing end-customer satisfaction. Additionally, the *AgentAssist* guides agents to an ideal speech rate and volume, and it can perform an automated wrap up that can significantly reduce the average handling time. The offline *VoiceAnalytics* optimizes hardware usage and allows for complex analytics served up after the event.

Real-Time and Batch Processing Modes
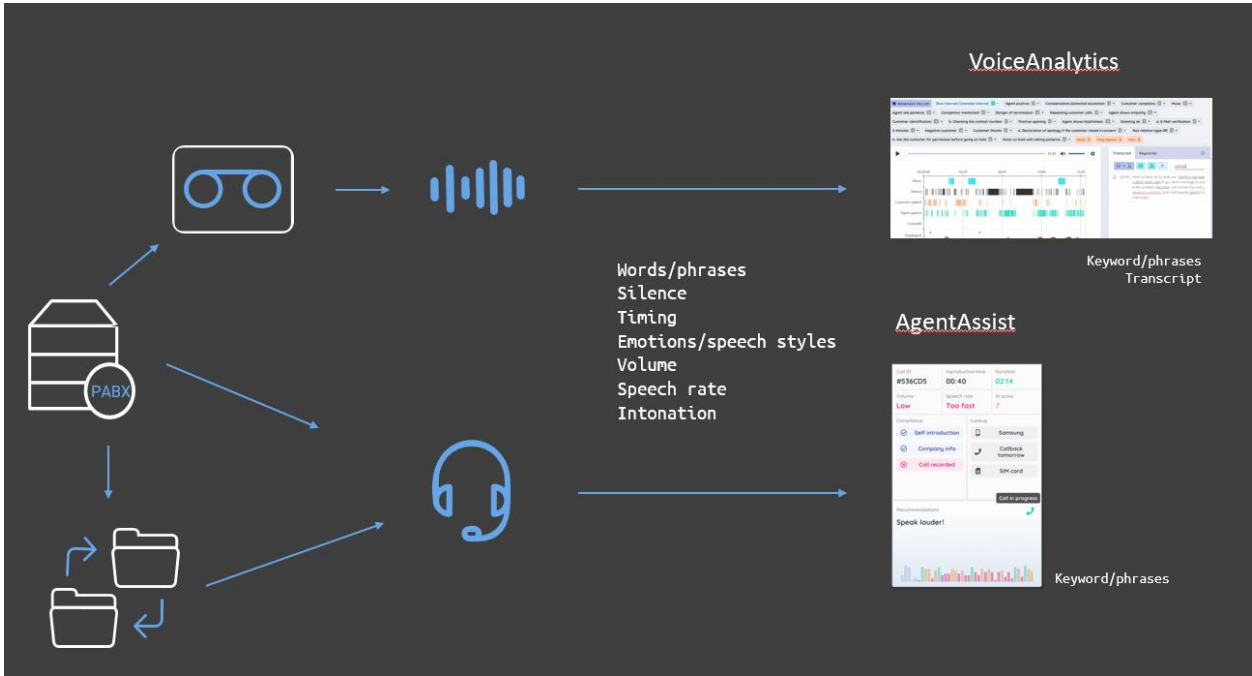
Customizable and Configurable to Customer Needs and Requests

With flexibility and configurability, Xdroid orients its research and development (R&D) strategy to respond to direct customer feedback and real-world experience. Fine-tuning its own industry vision following customer requests, the company leverages an in-house development team and partners with customers to configure systems that achieve specific goals. In addition to options for solutions to deploy either on-premise or in the cloud (according to the functionality and security needs of the customer) Xdroid works closely with each customer to configure the system as well as to determine and program the important KPIs. The system's architecture, based on Docker containers, allows smooth implementation and integration within the enterprise environment and systems such as customer relationship management (CRM), and net promoter score (NPS) or customer satisfaction surveys (CSAT).

In addition to the highly scalable solutions, Xdroid is uniquely agile and differentiates in its ability to tailor deployments to customer needs. As opposed to slow-moving incumbents in the space, Xdroid builds elements into the system that help the customer accomplish goals with improved versatile settings. For example, based on real customer requests, Xdroid adjusted and expedited a software program that helps customer's set up the KPI and word-tagging rules that the solutions measure. In another example, the company worked with a major insurance company to create a customer journey tracking functionality that permitted the system to follow the conversations with an individual customer through multiple conversations, both incoming and outgoing. This capacity to match customer needs impresses Frost & Sullivan.

Analytics of Remarkable Depth and Breadth

The granular level of detail in Xdroid's processing capabilities informs and makes possible an impressive depth and breadth of analytics, applicable to performance at the individual and entire organization level. Combining voice and text analytics at such a deep level is exceptionally unique, and especially in the 20 languages that the Xdroid solutions support. Propelling tangible results, Xdroid's analytics finds and presents relationships amongst numerous elements of the conversation and successful calls through its Insight Learning module. For example, working in conjunction with a European Bank and its annual promotional campaign, Xdroid uploaded and processed the previous year's call recordings into the system which returned insights into the variables and keywords that correlate with more successful calls. Highlighting the key signifiers that increase the likelihood of success, Xdroid suggested revisions to the customer's script and template and retraining for agents. The changes resulted in marked increases in conversion rates and client satisfaction.

At the highest level dashboard, displaying organization-wide core indicators (such as compliance levels, productivity, escalation requests), the analytics module offers a clear overview and definable levels of depth and categorizations. Customers can tailor the important elements and categories presented, with heat maps showing performance over time and options to dig deeper down to the department and individual levels. At the department level, displaying supervisor groups and their KPIs, Xdroid analytics compares and contrasts groups against one another or standard metrics or past periods. Customers can customize the dashboard to measure and display KPI trends in innumerable configurations, and integrate with NPS data and CRM systems. Diving down to the single individual level, observers track and measure the performance and behavior (such as key word mentions, silence periods, speech patterns), as well as hear the recorded conversations. Individual agents have a portal to track their own progress and performance, and associated earnings. In a gamification format, agents learn faster and shorten training cycles so they leverage the system as a friendly tool and not a burden.

An End-to-end Portfolio Based in Deep Knowledge

Offering the portfolio as white-labeled point solutions, or a complete all-in-one package, Xdroid includes a robust feature set that drives results at a competitive price point. Xdroid

supports service providers to implement the solution into contact center environments, as well as to layer on additional elements for a package under the customer's label. Moreover, the all-in-one Xdroid package can include the voice and text analytics (real time or offline, the training solution, as well as the modules for quality management analytics, customer journey visualization, NPS integration, as well as triggered alerts and trends) all under one standard price tag. With one standard package, customers gain a powerful and scalable toolset to evaluate and improve performance at the individual, department, and corporate levels.

Xdroid built an end-to-end solution leveraging a deep well of industry experience and technical knowledge. The company began as an academic project, training language engines and developed through in-depth experimentation. Rather than simply presenting a front end, like some companies, Xdroid's in-house expertise comprises the entire solution and R&D. However in order to deliver a broad range of languages it combines with best-of-breed third-party language engine providers as well. This background provides a foundation for continuing innovation and eagerness to remain on the cutting-edge of technical capacity. For example, the company prioritizes adoption of the latest hybrid database technology. Rebuilding the entire system to handle and query large amounts of data quickly and present it meaningfully with a new database technology, Xdroid ensures the system delivers speed and responsiveness.

**Remarkably Detailed Analytics, at Individual Level and Across the Contact Center**
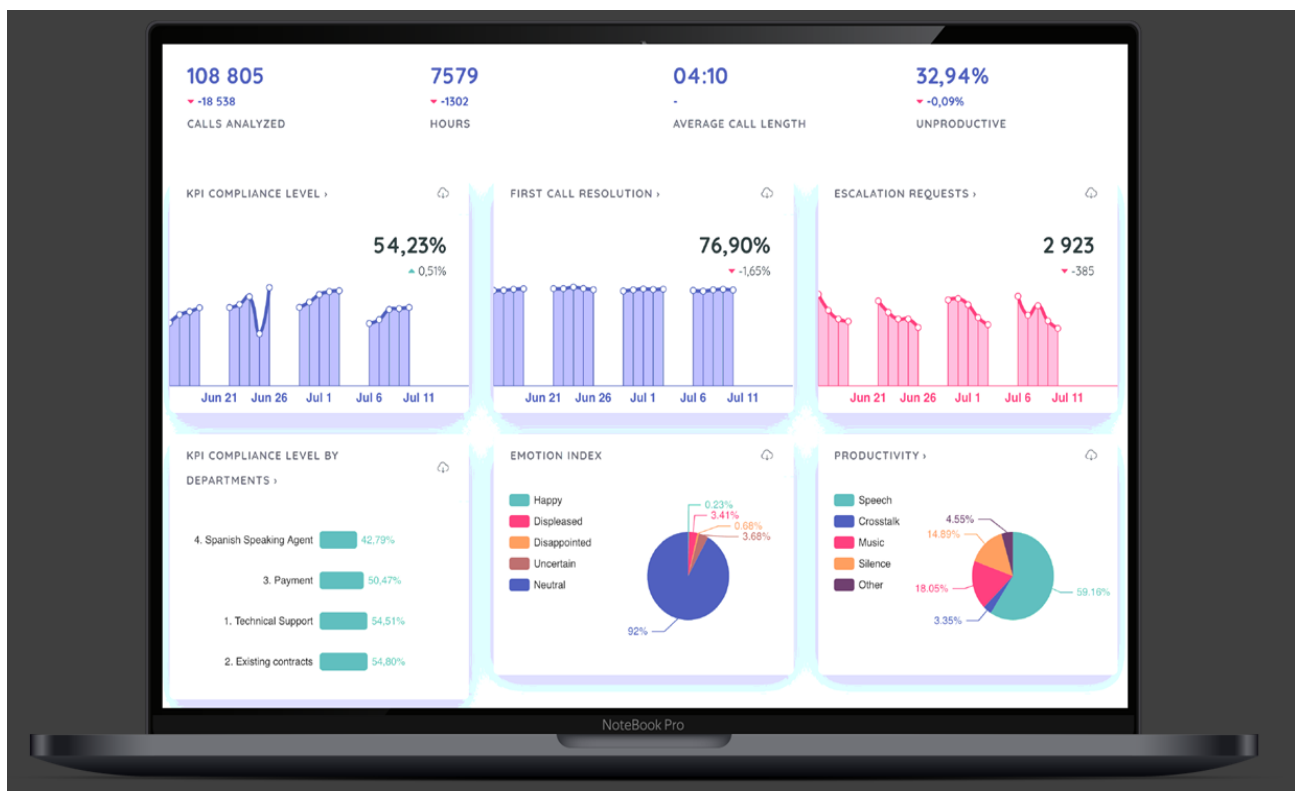
Source: Xdroid

An Automated Training System that Provides Intelligent and Meaningful Feedback

Highly unique in the market, the system features an automated learning and coaching system that includes voice and facial analysis and feedback. Developed in partnership with Audioweb, a Video service provider in Mexico and further enhanced in strategic collaboration with Deloitte India, the training solutions leverage Xdroid's foundational voice analytics engine and layers in facial analytics and processing through a proprietary engine to detect an agent's facial and voice elements and compare them with ideal responses and KPIs from tailored variables, such as speech rate, sentiment, correct phrasing, and word usage.

The solution is marketed under the OrcaBright brandname (www.orcabright.com). The system is operable in more than 20 different languages and provides feedback and exercises to help agents in training to achieve proficiency certification and provide high-quality service. The solution permits learning whenever and wherever agents need, even without direct oversight, and the system supplies objective, and in-depth feedback in realistic scenarios. Customizable to the needs and priorities of the client, the OrcaBright training solution takes the student through a course of study, beginning with introducing key concepts, proceeding to the learning management system (LMS), to an introductory test, digital role-play sessions, follow up testing, coaching and targeted training, and eventually to certification. The training system records the agent and sends the sample

**Training Analytics and Feedback in More Than 20 Languages**
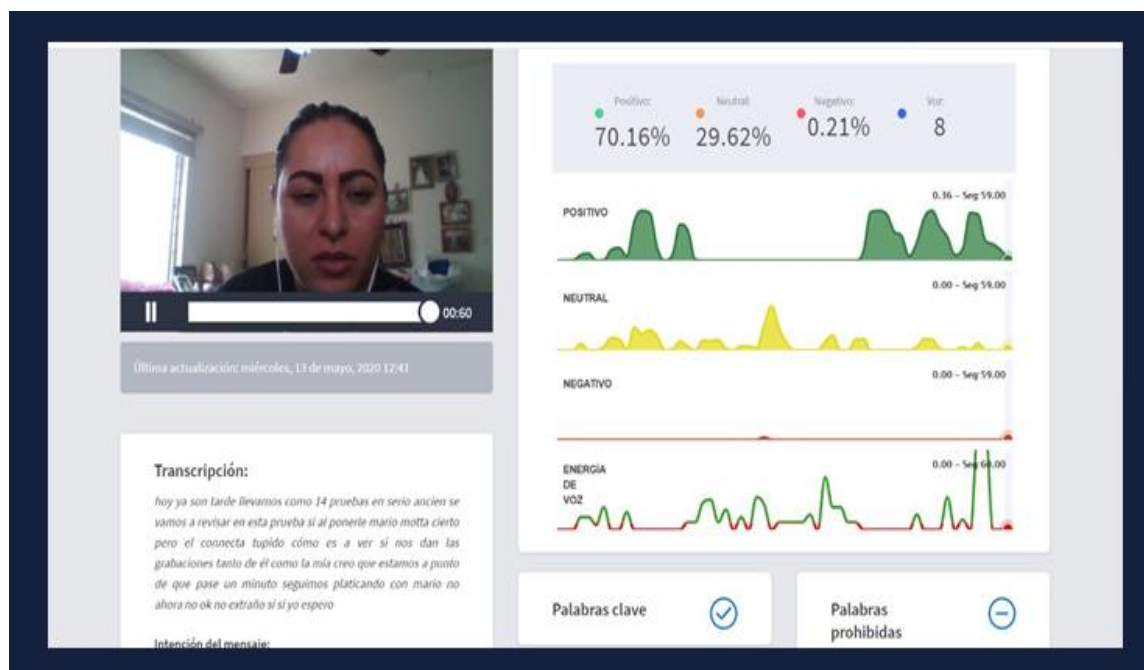
Source: OrcaBright

through the processing and back to the front end in near real-time. In a matter of minutes, or the time to complete the next sequential exercise, agents in training receive results to review their performances. Clients can use OrcaBright's standard course or

create their own training programs and content, and agents progress through programs made more fun with gamification.

Providing consistency across the length of the courses, the training solution enables contact centers to minimize costs associated with training agents, deliver courses to more agents, and deliver training to agents anywhere and anytime. The training solution includes an LMS (or integrates with an existing one) to assist students with a learning environment that includes automated lessons and one-on-one video coaching sessions with supervisors augmented with the AI analytics. The training system serves up, via a web browser, comparable role-play and video coaching as agents would experience in a classroom. Now operating with approximately 1,500 students, the training solution helps reduce training costs significantly.

AI Analysis Provides Automated Feedback to Roleplaying Training
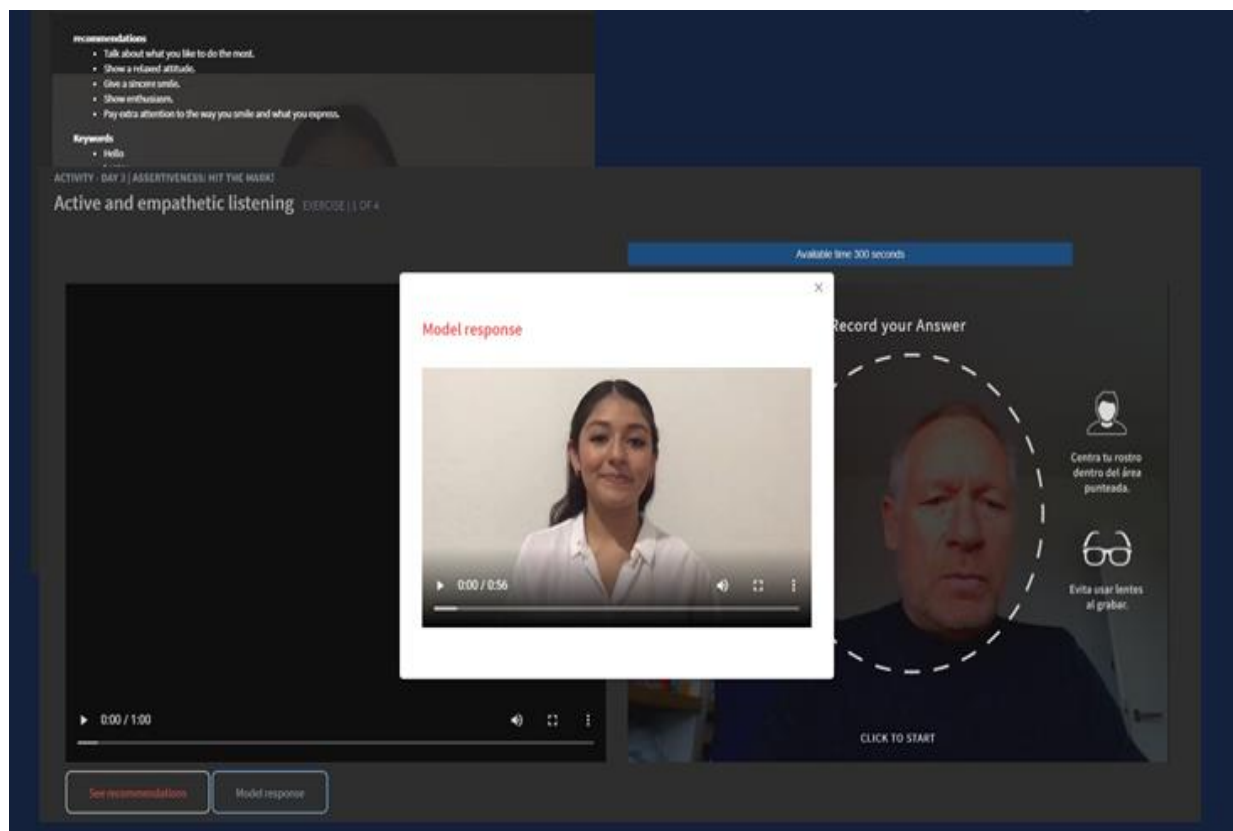
Source: OrcaBright

Conclusion

With contact centers becoming more essential touchpoints, remote work gaining traction, and agent consistency paramount, Xdroid furnishes organizations with an innovative voice and facial analytics solution. Reducing training time and cost, as well as boosting flexibility and efficiency, the training solution teaches agents with role-playing and automated feedback to model the ideal technique. With a solution set, including additional speech analytics and automated feedback, based on its proprietary language engine, Xdroid presents a highly flexible and customizable portfolio. The language engine, trained exclusively on contact center inputs and optimized for accurate transcription and annotation, uses deep neural networks to process conversations and provide feedback. Xdroid draws from a deep well of industry knowledge and combines exceptional agility and a focus on innovation that results in a company and solution set that delivers powerful value to customers in over 20 languages. The company's ability to pivot, including a dedicated and small leadership team, enables it to gain insights and satisfy customer needs like few other service providers.

For its in house development, robust solution, and flexibility, XDroid earns Frost & Sullivan's 2020 Europe Technology Innovation Leadership Award in the voice and facial analytics market.

Significance of Technology Innovation Leadership

Technology-rich companies with strong commercialization strategies benefit from the increased demand for high-quality, technologically-innovative products. Those products help shape the brand, leading to a strong, differentiated market position.

Understanding Technology Innovation Leadership

Technology Innovation Leadership recognizes companies that lead the development and successful introduction of high-tech solutions to customers' most pressing needs, altering the industry or business landscape in the process. These companies shape the future of technology and its uses. Ultimately, success is measured by the degree to which a technology is leveraged and the impact that technology has on growing the business.

Key Benchmarking Criteria

For the Technology Innovation Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Technology Leverage and Business Impact—according to the criteria identified below.

Technology Attributes

Criterion 1: Industry Impact
Requirement: Technology enables the pursuit of groundbreaking ideas, contributing to the betterment of the entire industry.

Criterion 2: Product Impact
Requirement: Specific technology helps enhance features and functionalities of the entire product line for the company.

Criterion 3: Scalability
Requirement: Technology is scalable, enabling new generations of products over time, with increasing levels of quality and functionality.

Criterion 4: Visionary Innovation
Requirement: Specific new technology represents true innovation based on a deep understanding of future needs and applications.

Criterion 5: Application Diversity
Requirement: New technology serves multiple products, multiple applications, and multiple user environments.

Future Business Value

Criterion 1: Financial Performance
Requirement: Potential is high for strong financial performance in terms of revenues, operating margins, and other relevant financial metrics.

Criterion 2: Customer Acquisition
Requirement: Specific technology enables acquisition of new customers, even as it enhances value to current customers.

Criterion 3: Technology Licensing
Requirement: New technology displays great potential to be licensed across many sectors and applications, thereby driving incremental revenue streams.

Criterion 4: Brand Loyalty
Requirement: New technology enhances the company's brand, creating and/or nurturing brand loyalty.

Criterion 5: Human Capital
Requirement: Customer impact is enhanced through the leverage of specific technology, translating into positive impact on employee morale and retention.

Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards follow a 10-step process to evaluate Award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 **Monitor, target, and screen**	Identify Award recipient candidates from around the globe	• Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies	Pipeline of candidates who potentially meet all best-practice criteria
2 **Perform 360-degree research**	Perform comprehensive, 360-degree research on all candidates in the pipeline	• Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice criteria • Rank all candidates	Matrix positioning of all candidates' performance relative to one another
3 **Invite thought leadership in best practices**	Perform in-depth examination of all candidates	• Confirm best-practice criteria • Examine eligibility of all candidates • Identify any information gaps	Detailed profiles of all ranked candidates
4 **Initiate research director review**	Conduct an unbiased evaluation of all candidate profiles	• Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles	Final prioritization of all eligible candidates and companion best-practice positioning paper
5 **Assemble panel of industry experts**	Present findings to an expert panel of industry thought leaders	• Share findings • Strengthen cases for candidate eligibility • Prioritize candidates	Refined list of prioritized Award candidates
6 **Conduct global industry review**	Build consensus on Award candidates' eligibility	• Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates	Final list of eligible Award candidates, representing success stories worldwide
7 **Perform quality check**	Develop official Award consideration materials	• Perform final performance benchmarking activities • Write nominations • Perform quality review	High-quality, accurate, and creative presentation of nominees' successes
8 **Reconnect with panel of industry experts**	Finalize the selection of the best-practice Award recipient	• Review analysis with panel • Build consensus • Select recipient	Decision on which company performs best against all best-practice criteria
9 **Communicate recognition**	Inform Award recipient of Award recognition	• Announce Award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10 **Take strategic action**	Upon licensing, company is able to share Award news with stakeholders and customers	• Coordinate media outreach • Design a marketing plan • Assess Award's role in future strategic planning	Widespread awareness of recipient's Award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry players and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages more than 50 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.