RoD NeXT

zensar

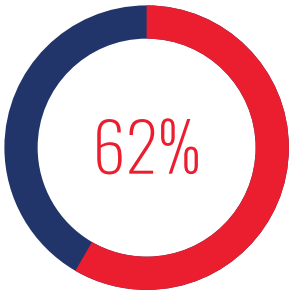
AI and ML Transforming Customer Experience

White Paper

RISING EXPECTATIONS ACROSS THE BOARD

Imagine that you enter a retail store, browse shelves aided by a digital assistant, and once a purchase decision has been made, you simply walk out of the door with the product. A seamless network of facial recognition software, in-store sensors, and mobile payment tools lets you do this in a zero-touch, high convenience workflow. This is exactly what the Amazon Go project hopes to achieve. Experiential innovations like this exemplify a shift in attitude and expectations in modern customers.

As the product landscape becomes highly competitive with market disruptors and incumbent enterprises vying for space, Quality of Experience (QoE) plays a critical role. In every industry, products and services are becoming standardized, making QoE a key differentiator for attracting customers. QoE is proven to directly impact business metrics such as return customer rates and Net Promoter Score, highlighting the need to personalize experiences for different customer segments, or even individual buyers.



In fact, a survey by Forbes Insights suggests that 62% of executives prioritize the delivery of personalized, transparent, and consistent customer experience across every interaction.

Technologies which can improve QoE and deliver futuristic experiences cannot be ignored. Data analytics is one such tool, powering different aspects of experiential technology from sensors to recommendation engines, and decision making at the back-end. The emergence of Artificial Intelligence (AI) and Machine Learning (ML) lets you take analytics a step further and enable better decisions in real-time. Studies suggest that 33% of enterprises have already deployed AI within the customer experience lifecycle; but in most cases, this is limited only to experiments. For Amazon, their technology enabled brick-and-mortar experience remains an experiment, contributing to only a fraction of total revenues.

So, can enterprises meaningfully leverage these technologies to transform customer experience? How do we exit experimentation and drive long-term viability? Let us look at this in greater detail.

AI OFFERS A GRANULAR UNDERSTANDING OF CUSTOMER BEHAVIOR

Essentially, AI places intelligent layers at strategic junctures to augment customer executive performance and enhance QoE. First, the process begins by identifying the customer experience use cases which bring the highest value to an organization. This is enabled by data analytics, continually collecting information to reveal high lifetime value customers, high interaction frequency, and other action points. Once all of this has been identified, AI can be introduced to understand the details of customer behavior, sentiment towards various products and UI elements, and any unfulfilled expectations. On the one hand, AI will uncover insights into customer behavior patterns and dominant trends, while on the other hand, limiting application to only select customers will optimize investments.

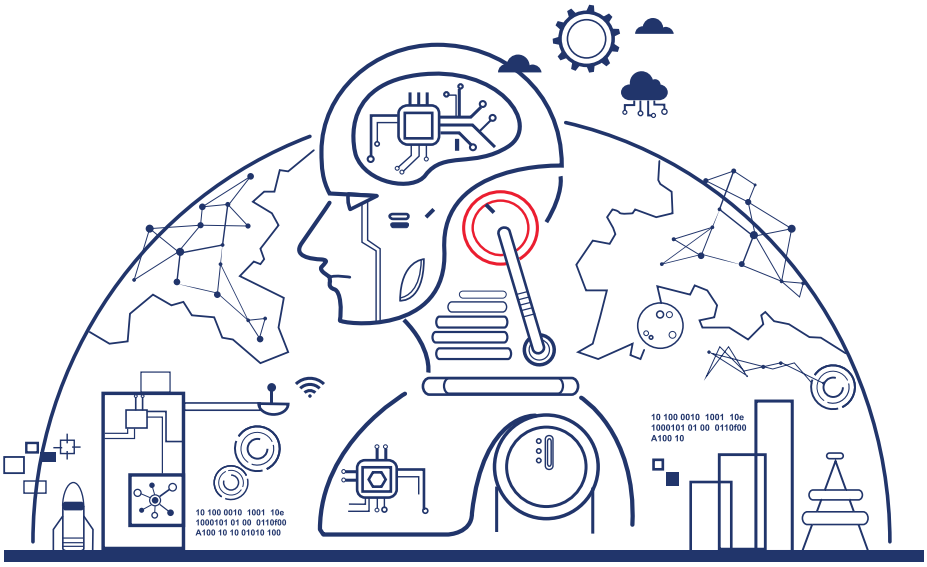
At first glance, this appears identical to existing data analytics applications which however, isn't the case. While data analytics works primarily with historical records and large databases, AI engines can process data in bite size chunks, giving enterprises insights in real time, powered by advanced computational capabilities. Some of the layers implemented by AI include:

Machine Learning (ML) - A foundational layer, allowing the AI engine to become incrementally more intelligent with every use

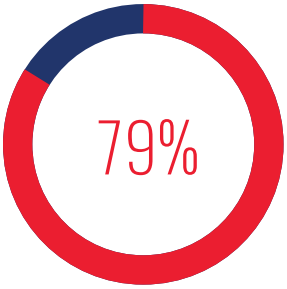
Natural Language Processing (NLP) - help comprehend unstructured data and convert human language information into a machine-ready format

Component technologies such as sentiment analytics and Optical Character Recognition (OCR), among others

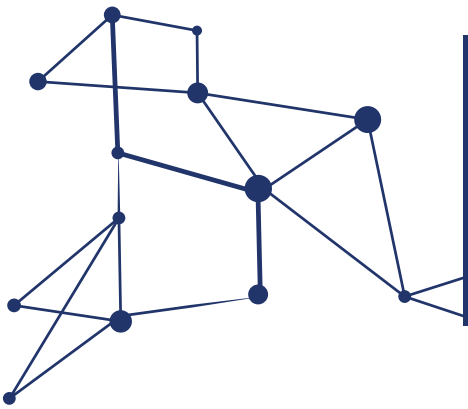
AI



By holistically looking at customer opinion across various points on the purchase journey or across multiple interfaces where a brand is present using a blend of these technologies, an accurate picture of brand/product perception can be gathered as well as the factors causing friction during buying experiences. The granular information uncovered by AI will prove key to reshaping experiences with an eye on emerging demands and individual customer preferences.



Driven by benefits like this, interest in AI for customer experience enhancement is gradually increasing. In the near future, 79% of companies will deploy AI in order to improve QoE – specifically in the areas of content management, CRM and marketing personalization. This brings us to the next area of discussion.



Hospitality chains can increase customer retention and customer acquisition by configuring services based on individual choices and seasonal demands. Our AI/ML solution powered a luxury hotel's customer experience transformation and improved time to market by 50%.

ML

ML

PERSONALIZING FOR A 'SEGMENT OF ONE' USING AI

Having access to deep insights into customer expectation and experience is the first step. It must be followed up through execution by employees, where a combination of AI and human intervention improves key moments of truth on the buying journey.

01

BETTER TARGETING FOR INSURANCE PRODUCTS

A buyer might be looking to purchase a policy online. The first few stages of the sales funnel maybe completed; however, the buyer changes their mind at the very last moment, leading to a drop-off. This is a high potential lead with a significant possibility of conversion. An AI engine will automatically identify the buyer and route them to a human executive, allowing the remainder of the funnel to be processed via offline channels. With the appropriate measures in place, the insurance provider could even integrate a conversational commerce interface (such as Messenger or WhatsApp) where a Bot requests for more information or shares customized promotions to encourage the purchase. This can improve QoE by linking multiple service platforms, both online and offline.

02

PERSONALIZED PRODUCTS RECOMMENDATIONS IN RETAIL

If a customer abandons their cart and switches to a different e-commerce application, AI can automatically share a push notification to encourage the purchase. By programming the algorithms correctly, these notifications could be designed to deliver personalized discounts and promotions, tailored to a specific individual. A buyer who usually shops in the luxury segment will receive new product updates in their preferred bracket, while a more cost-sensitive buyer will be sent discounts and price updates. Based on a person's purchase history, updates can be delivered on new product launches, with campaigns shaped around their own wish list.

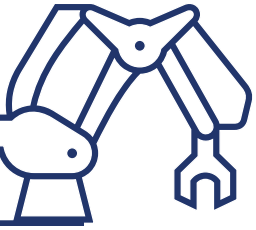
03

IMPROVED PRODUCTIVITY IN SHOPFLOOR

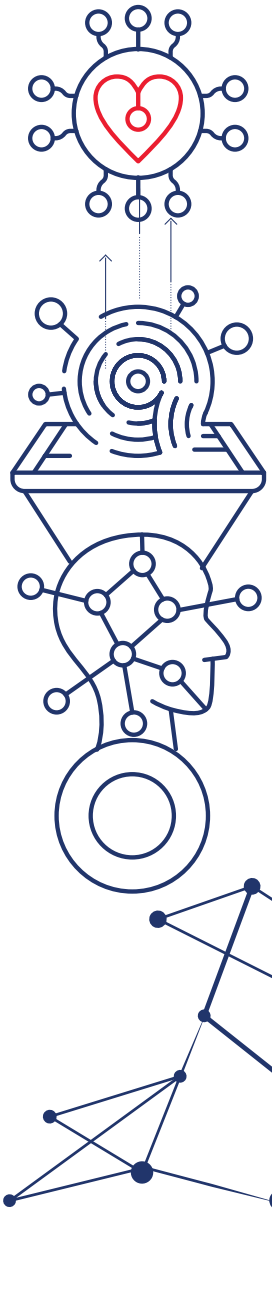
In manufacturing, AI can improve QoE by boosting production quality. Industrial AI and Machine Learning will help introduce "ultra-automation on the factory floor", allowing employees to deliver high quality products at low costs and effort. With the right foundations in place, manufacturers will leverage AI to make informed decisions, spot defects on the production line, verify workflows, and streamline the maintenance of

AI

AI



equipment. Each production line is treated as a Segment of One where an AI engine detects gaps, anticipates requirements, and automatically sources replacement parts/raw material to keep output at an optimum. With real-time problem-solving, manufacturers enjoy uninterrupted operations, alongside the minimization of recalls, repairs and lost business.



In all these cases, what we have is literally a Segment of One – an ecosystem created by utilizing data analytics output on past behavior, engagement patterns, and dominant areas of interest. Accordingly, the AI engine drives messages and triggers actions in real-time, continually updating the ecosystem, even as the user progresses further on their journey.

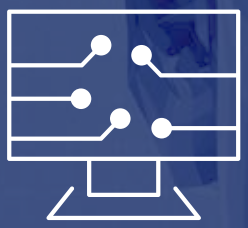
At Zensar, we created a Conversational AI platform for a leading Health Organization that tracked important programs like organ donation worldwide. This platform ensured that donor information was available in real time across the world thus reducing dependency on IT support team to 0%.

AI

ML

CURRENT APPLICATIONS AND IDEAS FOR FUTURE INNOVATIONS

Personalization is not a new concept in marketing and customer experience design. However, enterprises have traditionally relied on basic demographic data (gender, age group, socio-economic bracket, and so on) to arrive at customer segmentation models. But such simplistic demographics are poor predictors of actual behavior, especially in a world of increasing product competition, aspirational marketing, and differentiated preferences within the same segment. It is integral to leverage analytics for processing customer data at granular levels, and then using AI to personalize for a 'segment of one' in real time.



An implementation already being witnessed is the customization of web pages based on previous trends, recommending the products/content/services that a specific 'segment of one' is most likely to buy.

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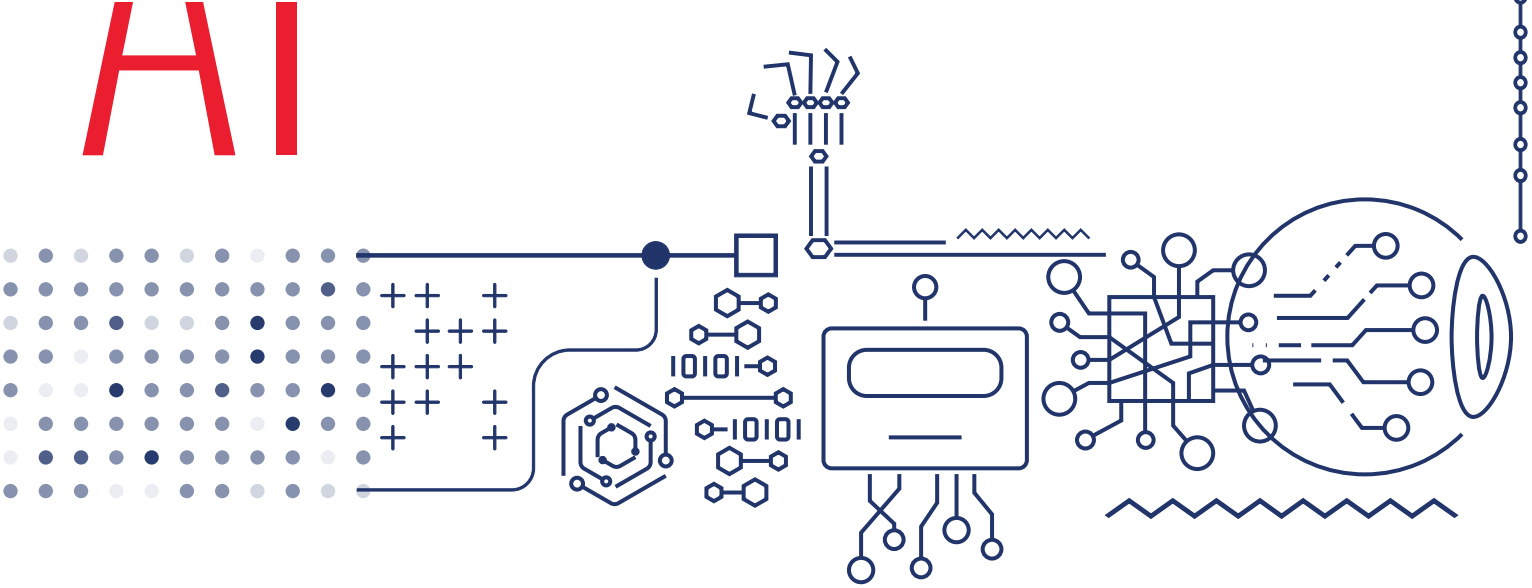
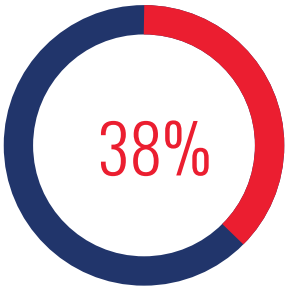


In the future, enterprises will gain immense confidence around customer segmentation and outreach, led by AI and ML. We could imagine a scenario where a retailer would automatically pre-dispatch a select product based on order predictability and intent to buy scores, gathered through analytics. Even if this is targeted to 1% of the customer base, a powerful and intelligently developed technology stack would be able to ensure that 99% of the targeted customer base accepts the product. Such automated analytical models which can self-learn from past insights and responses are an instance of 'amplified analytics' in action.

Even before we explore such futuristic scenarios, AI is displaying impacts far closer home. For example, customer attribution (a way to identify which platform has directed a user to the content) can be made much more accurate through AI. Traditionally, attribution has followed a last-click model, where brands can only track the previous step on the customer pathway, even if that wasn't the one most important. In 2017, Google announced that their attribution engine will now make use of AI to combine and collate data across various touchpoints, enabling *"Attribution 360"*.

Clearly, none of these technologies operate in isolation and given the wide scope of AI and ML, every aspect of customer experience design and delivery will be transformed through their application.



However, a few challenges continue to impede this path to progress, given that only 38% of executives are confident that they are investing enough in AI, ML, and associated technologies. Let us discuss why despite industry wide consensus on the role of AI, we still have a long way to go.

ML

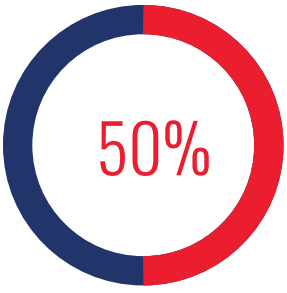
ML

CHALLENGES TO IMPLEMENTATION AND THE WAY FORWARD

Several factors are contributing to this rather sluggish implementation of AI and ML. On one hand, there is a lack of ownership as organizations are struggling to assign responsibility to IT, marketing, or a completely new department. Existing employees may also be resistant to change, convinced that AI is a possible threat to their roles. Another concern is the siloed nature of customer data, which is often available in fragments and disparate formats, incapable of being processed by a singular AI engine. Finally, while use-cases are numerous, there is an absence of clarity around prioritization and transformation starting points.

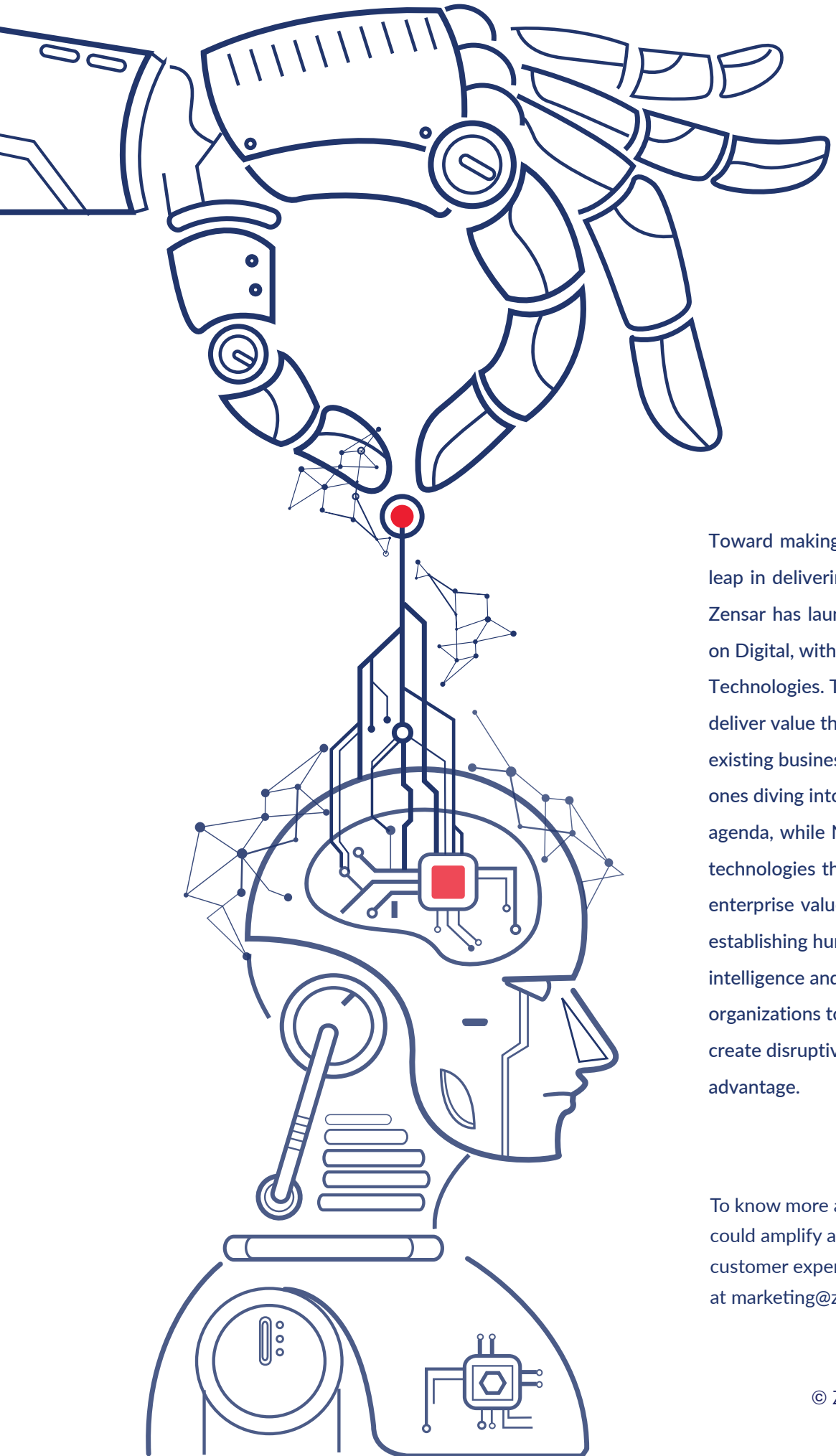
That's why a set of specialized AI vendors and consultants are emerging, bringing expertise and experience in implementation. These would address the cost of hiring in-house technical talent and any skills related shortage faced by enterprises. Technical expertise would have to be complemented by a focus on R&D, and funds specifically allocated to the same.

As more industry leaders are pushing for differentiation, AI-driven CX is a pivotal area. It will help push margins regardless of industry or sector type. Given the current experimental status, adopters will have a clear early mover advantage. For product companies, this means a new way to attract eyeballs, emotionally connect with customers, and build a relationship. In service industries, AI and ML will exponentially improve QoE through intelligent chatbots and virtual assistants.



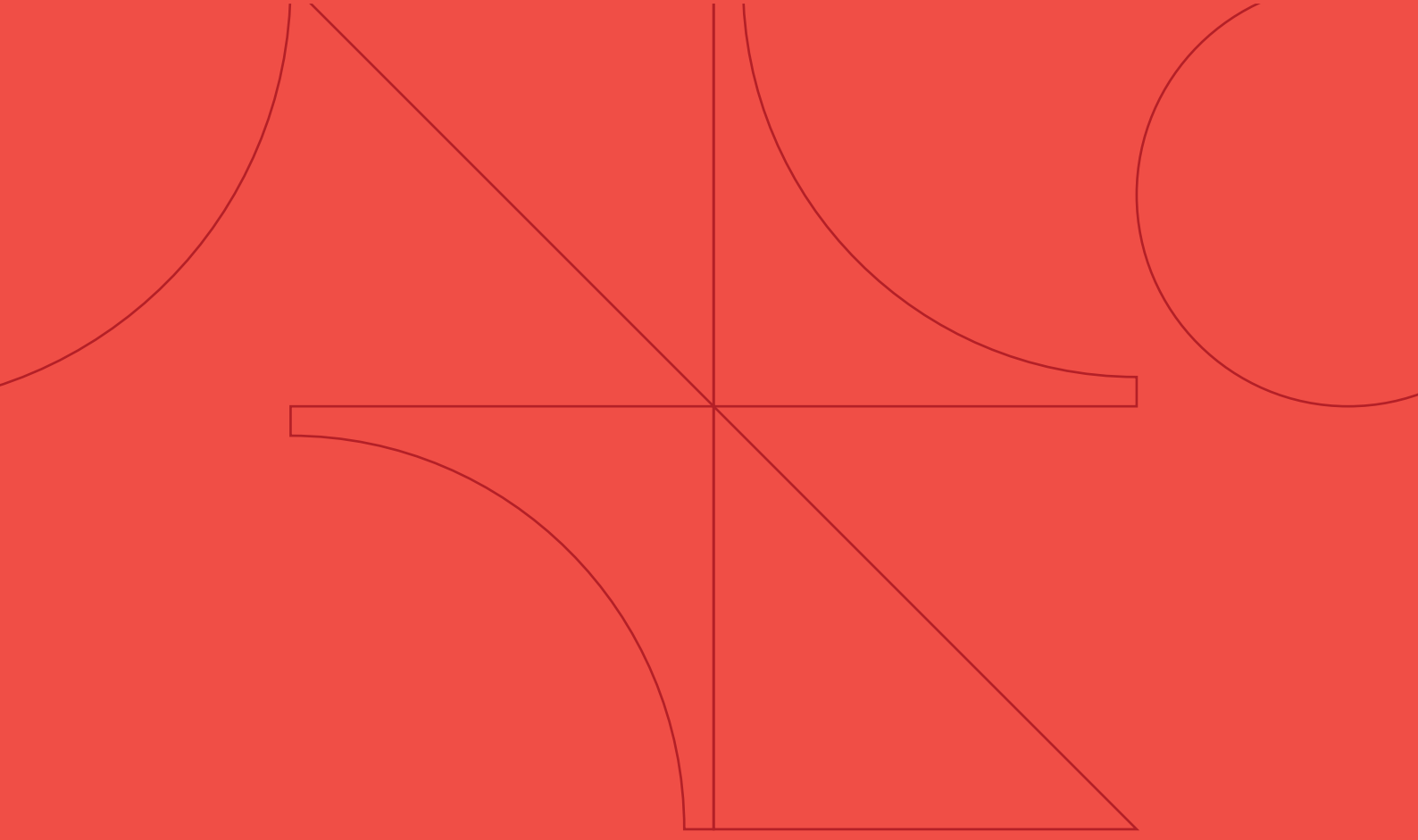
With 50% of modern consumers expecting a response to their queries in under an hour, these technologies will prove game changing. In the next part of this series of whitepapers, we discuss how AI and ML could redefine customer service experiences and add to an organization's bottom line.

AI



Toward making the next and disruptive leap in delivering scale to an enterprise, Zensar has launched RoD NeXT – Return on Digital, with New and Exponential Technologies. The RoD framework helps deliver value through optimization of existing business models or by creating new ones diving into the digital transformation agenda, while NeXT introduces new technologies that help create exponential enterprise value. RoD NeXT focuses on establishing human experience, artificial intelligence and smart platforms in client organizations to constantly innovate and create disruptive impact for competitive advantage.

To know more about how an intelligent layer could amplify analytics and improve customer experience capabilities, contact us at marketing@zensar.com



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An RPG Company

We conceptualize, build, and manage digital products through experience design, data engineering, and advanced analytics for over 200 leading companies. Our solutions leverage industry-leading platforms, and help clients be competitive, agile, and disruptive as they navigate transformational changes with velocity.

With headquarters in Pune, India, our 10,000+ associates work across 33 locations, including San Jose, Seattle, Princeton, Cape Town, London, Singapore, and Mexico City.

For more information please contact: **marketing@zensar.com | www.zensar.com**