

White Paper

The Business Case for Dynamic Imaging

Dynamic imaging
is a powerful way for e-commerce
businesses to optimize the
customer experience.



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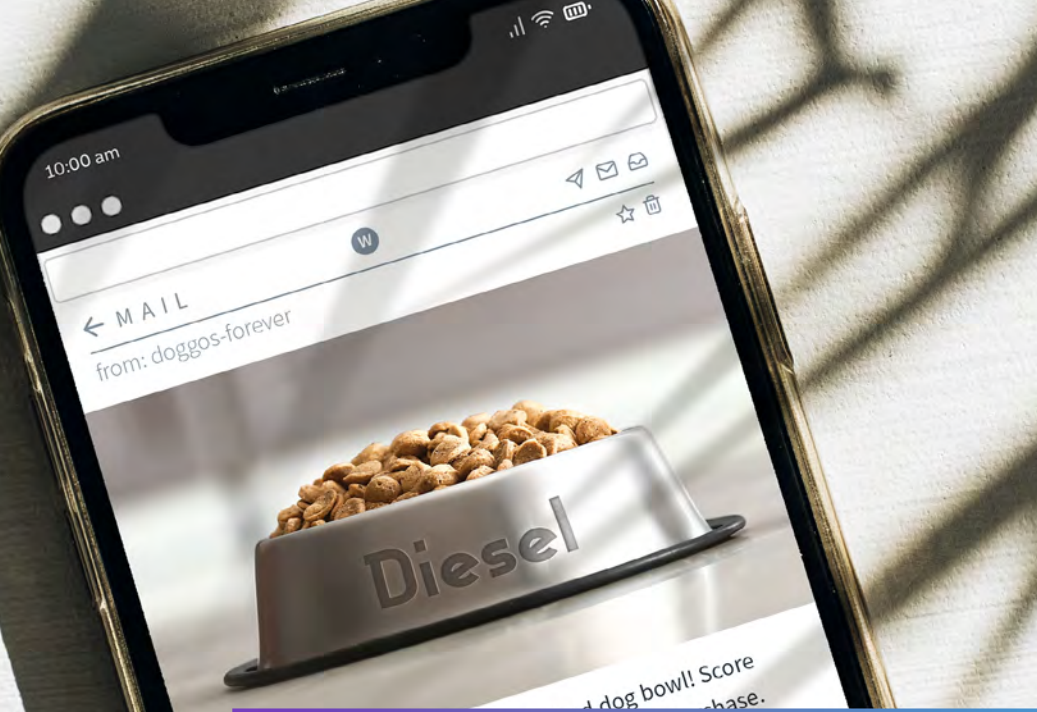
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Executive Summary

Retailing is an ever-changing market. Brands need to secure their online presence and future-proof their websites to remain competitive. However, many retailers fail to adequately incorporate lessons learned from the in-store shopping experience to their online domains.

Even in a post-pandemic world, [half of all consumers](#) still prefer shopping in person to online. They feel that the lack of physical interaction with the products, and the inability to mix-and-match those products with their accessories, are detrimental to the buying process. However, when consumers are able to connect with merchandise in a close, tactile way, they trust their judgements better. So, how can brand recreate this type of trust in an online environment? Dynamic imagery.

There are two crucial elements to the in-store shopping journey: first, the retailer must attract their audience, display their merchandise, and encourage their customers to buy products. Second, the shopper must be interested in acquiring something new. The process is a delicate balance of creating the right shopping environment (retailer) and successfully completing a rewarding hunt (consumer). Both parties should benefit at the end of this journey.

Online, both the ability to merchandize and the ability to hunt are muted. While the transactional process of buying and selling online is easy, the process of browsing and exploring new products is not. There is huge potential to enable an online customer experience that rivals—or exceeds—the traditional one a customer would have in person.

Imagery is critical to creating a superior online customer experience. However, imagery is often treated as an afterthought. Too few companies invest in the right imaging technology and suffer from slow websites, poor product representation, and negative ROI.

Dynamic imaging technology empowers e-commerce websites to provide flexibility and interactivity in ways that are unattainable in store. Moreover, customers feel a certain kinship with brands that empower them to be more creative and involved in their purchases, especially online.

Dynamic imaging is a powerful way for e-commerce businesses to drive customer satisfaction, improve conversions, and generate exceptional ROI.



Pressures on the Retail Industry

"Consumers couldn't get out to shop, as the pandemic kept them at home. The result was an economy that simply collapsed. We have never seen economic data like this before in history."

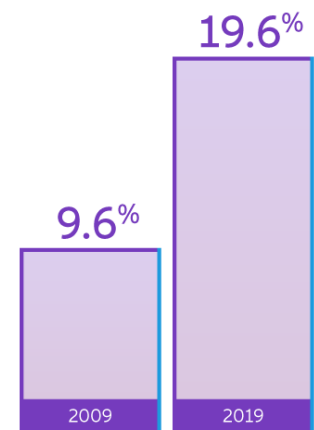
- [Chris Rupkey, Chief Financial Economist at MUFG Union Bank](#)

Today, brands face unprecedented pressures. The pandemic-induced economic upsets and supply chain disruptions are squeezing bottom lines. Coupled with the continuous advance of technology, the ever-changing online retail environment increasingly challenges businesses to stay ahead of the curve.

Despite recent pressures, online commerce is on an upward trajectory. E-Commerce retail shares continue to rise, [from 9.6 percent in 2009 to 19.6 percent in 2019](#). Online sales surged and e-commerce shares swelled during the pandemic, [even as brick-and-mortar stores took a big tumble](#).

Post-pandemic, consumers are unlikely to return to pre-pandemic levels of physical shopping. If the trend continues, by 2030 more than half of sales will be online.

Although the numbers do promise that brick-and-mortar stores will eventually bounce back from recent disruptions, e-commerce is here to stay. Businesses, therefore, need to optimize their e-commerce selling strategies if they want to thrive, or just survive, in the coming years.





From Zero to Website: What E-Commerce Sites Need

"33% of respondents prefer shopping at physical stores because they like to see and feel products, while 26% enjoy the overall experience of shopping in person."

- The State of Consumer Behavior 2021 Report, Raydiant

In order to secure their online presence, a business must have the technology, logistics, and data analytics necessary to effectively run their e-commerce ecosystem. They will also need new marketing strategies, integrated partnerships, and compelling productization to power their e-commerce engine.

It is at this critical juncture that many businesses are lulled into a false sense of e-commerce preparedness. When in reality, many critical questions have not yet been addressed.

Simply put, an online e-commerce site is not often as effective as a brick-and-mortar store. [64 percent](#) of shoppers continue to spend their shopping money in person.

Why do many people still prefer the in-store experience?

1. **Touch:** online stores do not have the tactile aspect of shopping. People want their shopping experiences to be visceral, visual, and close. [According to a Raydiant report](#), 33 percent prefer in-store shopping because they like to "see and feel products." The more a company can stimulate the senses, the better.
2. **Discovery:** online, the routes to guide purchasing decisions can be somewhat blunt, driven by catch-all algorithms. Serendipity or impulse-buying can feel less appealing. 26 percent of shoppers say they simply "enjoy the overall experience of shopping in person."
3. **Exploration:** shoppers prefer to physically analyze and compare product combinations. Human dexterousness makes browsing fast, easy, and flexible. Digital browsing does not inherently preclude this; but traditional digital browsing experiences are more rigid and limited.
4. **Browsing:** often, product-centric upsell is rather crude and direct. Rather than being offered a warm suggestion from a knowledgeable assistant, an algorithm directly points to a featured item. Many shoppers who like to browse feel resistance here. Online, it is often a buying experience, not a shopping one.



The Foundation of the Shopping Experience

In e-commerce, the quality of your imagery is the quality of your store.

To provide a revolutionary and satisfying buying experience, brands need to utilize the right images for their website. Beautiful product photographs are not enough. High-fidelity images need to be simultaneously optimized for every type of viewing device, presentation style, and network bandwidth. However, for most e-commerce websites, imagery is often an afterthought.

Images are the foundation of the shopping experience. They are the digital counterparts to in-store products, and they entice casual shoppers to become loyal customers. In e-commerce, the quality, presentation, optimization, and fidelity of your imagery is the quality of your store. And skimping on your imagery is like having a physical store with bad lighting, disorganized displays, or dirty windows. You would never allow your brick-and-mortar store to appear in such a state. The same care must be invested into its digital counterpart.

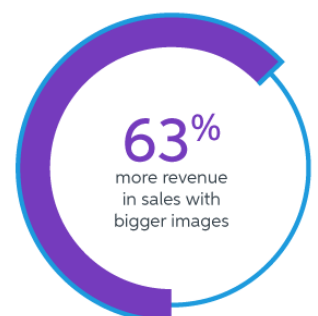
"Companies often spend countless hours and dollars shooting excellent photography, crafting their user interfaces, and marketing their wares. Yet, if a site loads too slowly because of the images, all of that effort is for naught as the shopper will have moved on."

- Steve Kristy, CEO, LiquidPixels

Research shows that visualization of a product feature or benefit results in a [17 percent increase in revenue per site visitor](#). Additionally, a study for Skinner Auctioneers and Appraisers revealed that increasing the image sizes by 28 percent resulted in 63 percent more revenue in sales.

Steve Kristy, CEO of LiquidPixels, has also seen how images can make or break an e-commerce website. "Companies often spend countless hours and dollars shooting excellent photography, crafting their user interfaces, and marketing their wares," he said. "Yet, if a site loads too slowly [because of the images], all of that effort is for naught as the shopper will have moved on."

For brands that want to bring the shopping experience to their e-commerce sites, static imagery is insufficient. Those who only offer static imagery will be outsold by those who offer the interaction, exploration, customization, personalization, and serendipity that is demanded by shoppers.





Sure, one can present product images quickly and with the highest fidelity possible. But shoppers do not just want to “see” a product. Consumers want to:

- **Explore the product:** which means “touching” it, manipulating it, and interacting with it to see how it works.
- **Combine the product:** mix-and-match with other items, especially clothes, and accessorize them how they want.
- **Customize the product:** the ability to pick and choose from the fabrics, colors, and details within the confines of existing product offerings.
- **Personalize the product:** in certain cases, shoppers want products that they can personalize with bespoke colors, logos, or embroidery for truly one-of-a-kind items.

How can brands bring together all of this—years of merchandising knowledge and today’s advanced technology—to create the best shopping experience online? Through **dynamic imaging**.



Elevating the Experience with Dynamic Imaging

For brands who want to bring the full in-store shopping experience to their e-commerce sites, static imagery is insufficient. Those who only offer static imagery will be outsold by those who do more.

With the right technologies, static images can become dynamic images, bringing a whole new level of interactivity to an e-commerce website. With dynamic imaging, brands can give customers what they want and more.

What is dynamic imaging?

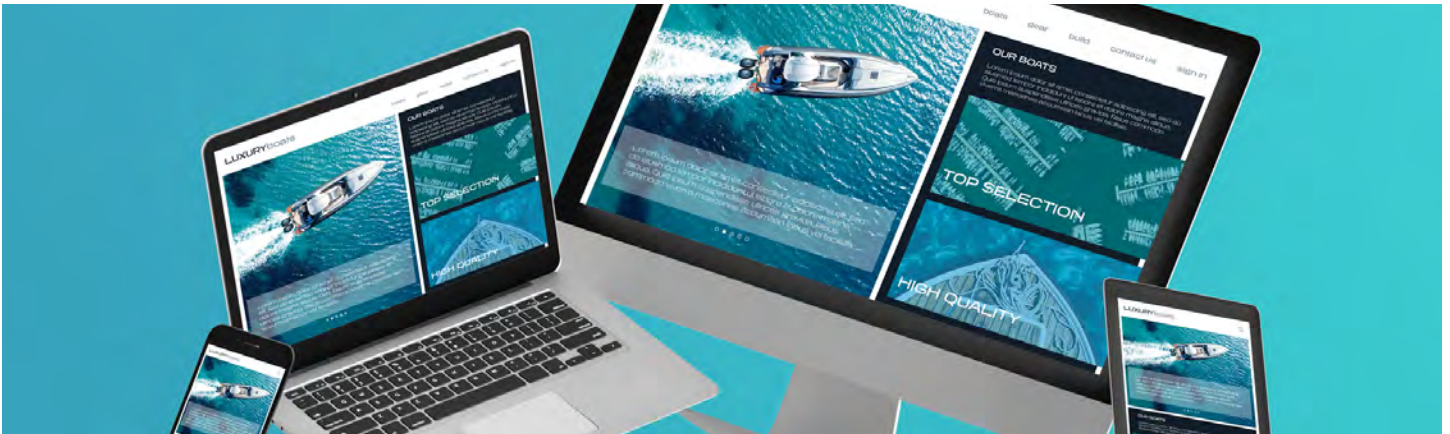
[Dynamic imaging](#) is a revolutionary way of processing and delivering images via the web, enabling high-performance, interactive online visual merchandising. It is a business logic driven, server-side online imaging method, which combines one or more master images with live data and returns the resulting customized image to the browser instantly and automatically.

Simply put, dynamic imaging is the **fusion of digital imaging, image editing, and workflow automation to produce beautiful individually-targeted pictures.**

True dynamic imaging executes in real-time, and the image rendering process combines internal and external data sources to generate text, logos, color, and other variables to produce a unique image optimized for any device.

Device-agnostic superior rendering

Dynamic images can be displayed on any device—from desktops to laptops, from smartphones to tablets—without compromising quality and resolution.



With the right technology, website images automatically adapt to the best size, format, and fidelity, no matter the environment or the device the website is viewed on.

High-definition, immersive capabilities

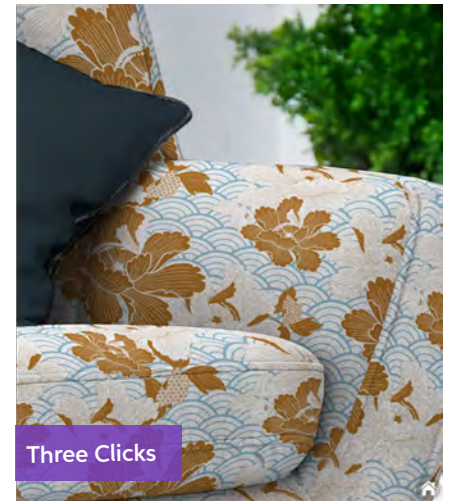
The ability to look closely at in-store products is only attainable online through dynamic imaging.



With dynamic images, customers can interact more richly than with a conventional magnifying-glass. Dynamic imagery enables interactive zoom, magnification, and exploration of products in 3D viewing from multiple axes, to give a complete 360° surround view. This interactive control and immersion enhances the user's familiarity with the product, akin to actually picking up the item with their hands.

In-depth product exploration and interaction

Dynamic imaging allows shoppers to explore products large and small. From the trim package of a car model, to the expert craftsmanship of a custom suit, shoppers can interact with and explore the most precise details of a product without sacrificing image quality.



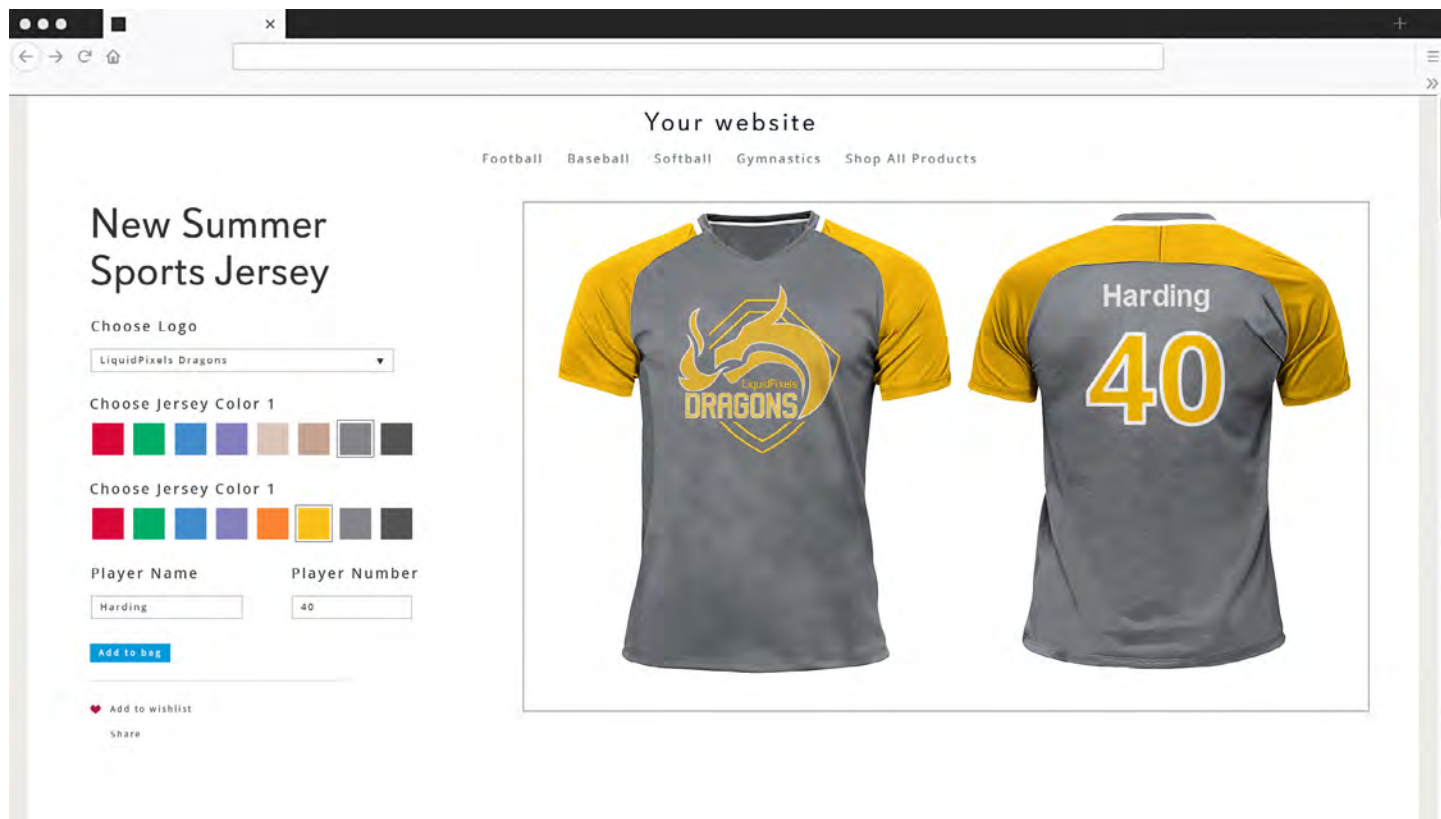
LiquiFire® Viewer Suite™, Zoom Viewer™ example shows the ability to click and zoom into a specific part of an image.



LiquiFire Viewer Suite, Magnify Viewer™ example shows the hover action to automatically see more details.

Full customization and personalization capabilities

Dynamic images allow shoppers to see their preferred styles in every product. Beyond the brick-and-mortar experience, shoppers can investigate all available colors, explore by customizing, combining products, and even personalizing items with their names and/or logo.



With these highly-customized capabilities, a website can actually craft a customer experience that exceeds what can be achieved in-store.



Reaping the Benefits

Consumers love personalization. And dynamic imaging offers precisely this, allowing the customer to create and play in a virtual environment that delivers unique experiences for them.

Dynamic imaging is the way to give e-commerce shoppers the **user experience** they want—an experience that an average e-commerce website with static and slow-loading, low-resolution images cannot provide.

Dynamic imaging provides the platform to build a relationship between the brand and the customer. [74 percent of customers](#) find themselves frustrated when website content is not personalized. By comparison, [91 percent of consumers](#) prefer shopping with brands that provide offers that are catered to their wants and needs.

"Optimizing the images on a site is painless and automatic [with dynamic imaging], resulting in the most significant improvement in page load speed with the highest ROI across all platforms."

- Steve Kristy, CEO, LiquidPixels

Consumers love personalization. And dynamic imaging offers just that; allowing the customer to explore and play in a virtual environment that delivers unique experiences for them. This creates a personal and emotional link that will endure for a long time.

Moreover, deploying dynamic imaging solutions improves site speed, and measurably drives conversions. As Steve Kristy observes, "Optimizing the images on a site is painless and automatic [with dynamic imaging], resulting in the most significant improvement in page load speed with the highest ROI across all platforms."





Here are some cases that prove the point

Chef Works®

"Leveraging [dynamic imaging] now will help take Chef Works digital offering to a new level. We want to make it so that our competitors are always coming back and looking to us as industry leaders, not just on the product side, but on the digital technology side, as well."

- Tim Scott, Director of eCommerce, Chef Works

Chef Works is not your normal, routine uniform manufacturer. Since the 1960s, they have been an industry leader in the design, development, and management of uniform and culinary apparel programs across the globe.

Tim Scott, Director of eCommerce at Chef Works, believes leveraging dynamic imaging "will help take Chef Works digital offering to a new level. We want to make it so that our competitors are always coming back and looking to us as industry leaders, not just on the product side, but on the digital technology side, as well."

Through partnering with LiquidPixels, Chef Works is able to delight customers by allowing them to easily and beautifully visualize personalized apparel. As a result, both buyer satisfaction and revenue saw boosts—particularly valuable during the leaner months of the pandemic.

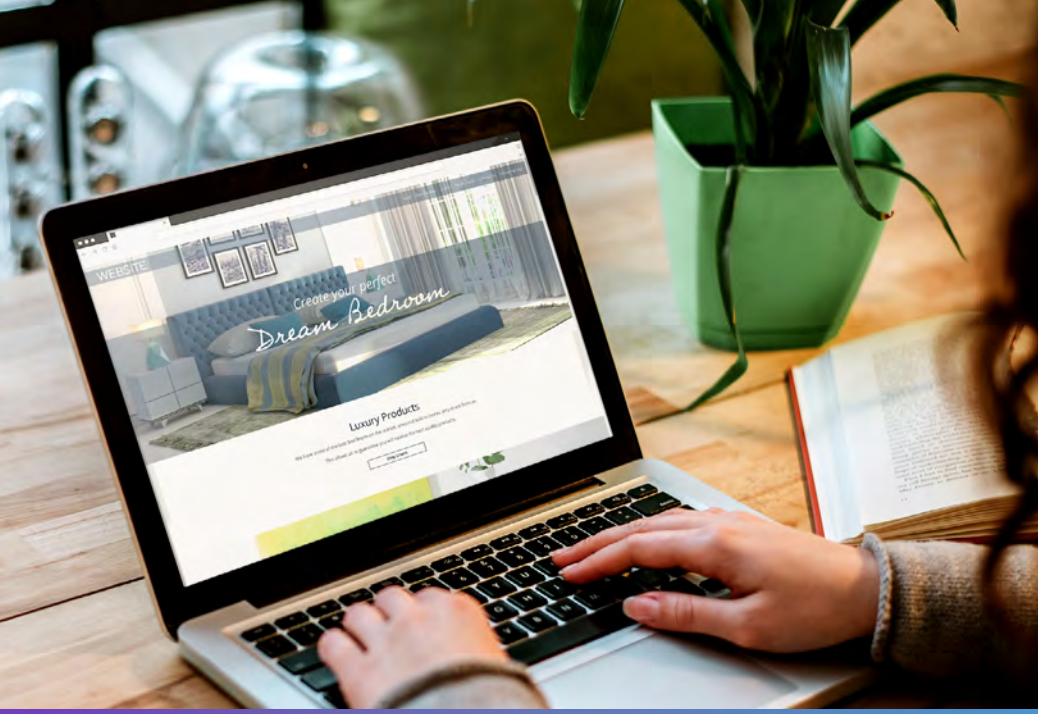
Threadless

"Dynamic imagery has helped us easily generate hundreds of thousands of highly complicated, lifelike preview images on the fly from our artist community's graphics."

- Jake Nickell, Founder & CEO, Threadless

An apparel business that started in Chicago, [Threadless](#) offers a full lineup of apparel, accessories, home décor, and footwear. The company assembles, supports, and promotes a vast group of previously-unknown creatives to craft new designs.

With retail dynamic imaging, the company addressed the [many challenges](#) they had over their burgeoning business: increasing speed to market, providing realistic embroidery and 3D-rendered mockups, and upping support for their growing artist community. Jake Nickell, Founder & CEO of Threadless, said dynamic imagery "has helped us easily **generate hundreds of thousands of highly complicated, lifelike preview images on the fly** from our artist community's graphics."



Dynamic Imaging: The Key to E-Commerce Success

"E-Commerce has never been so competitive. The barriers for entry are very low, which has caused the number of online stores to skyrocket, and has dramatically reduced switching costs for shoppers. Customer experience is now the main battleground for merchants trying to stand-out in the crowd and captivate shoppers. Only those who deliver an outstanding personalized experience stand a chance..."

- Manish Chowdhary, CEO of Pulse Commerce

In a world where more and more people choose to shop online and make purchases through their smartphones, businesses need to embrace the conveniences of e-commerce, without losing the charm of an in-store shopping experience.

Dynamic imaging is the key, and with the right technologies, companies can reap the benefits:

- Evolving product images beyond the traditional 2D space
- Providing in-depth product exploration and interaction that customers love
- Full customization and personalization to fit consumer styles and preferences
- Establishing brand-consumer relationships that endure
- Higher conversions, increased revenue, and positive ROI

[LiquiFire OS](#), our core solution, is capable of providing all these and more. It is also the underlying functionality that powers our fleet of dynamic imaging solutions:

- [LiquiFire Resolve™](#),
- [LiquiFire Viewer Suite](#); and,
- [LiquiFire Embroidery Suite™](#)

To find out more and see LiquiFire OS in action, watch our [demo videos here](#), or [contact us](#).



About LiquidPixels, Inc.

LiquidPixels leads the imaging revolution. Built on open standards, LiquiFire® Dynamic Imaging Solutions integrate into the entire enterprise ecosystem for a seamless end-to-end imagery solution. For more information, visit LiquidPixels.com.

