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GIA REPORT NO   DATE ISSUED
No. 117211892   01/01/2022

— SHAPE
Measurements
Carat Weight
Color Grade
Clarity Grade
Cut Grade

— PROPORTIONS
Depth
Table   71%
Girdle   Slightly Thick
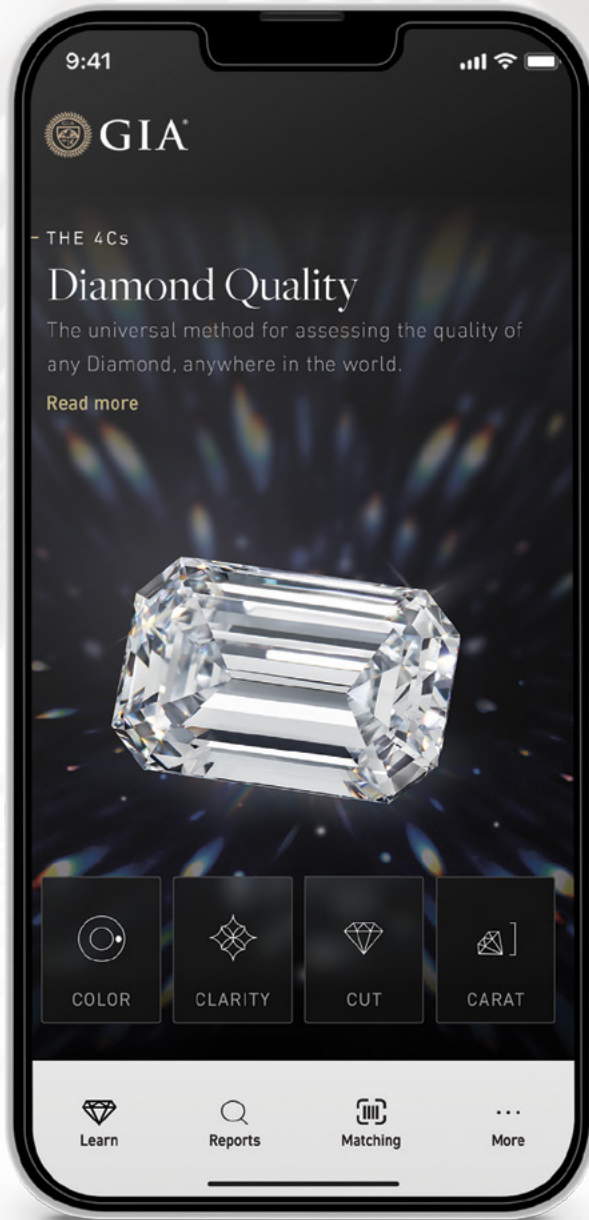
FUTURE PROOF

How new tech is changing the way we grade, sell and speak about diamonds

The New GIA App Means Business.

Point-of-Sale Tools + **Report Lookup and Storage** + **Knowledge At Your Fingertips**
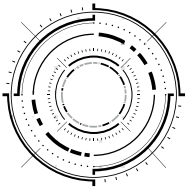
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HOW TO BE READY FOR A
DIGITAL- FIRST FUTURE

PRITESH PATEL
SENIOR VICE PRESIDENT AND CHIEF
OPERATING OFFICER, GIA

P rediction is very difficult, especially if it's about the future." That quote and variations of it are often attributed to Danish physicist Niels Bohr or famed American baseball coach Yogi Berra.

The future is hard to predict because what we do now will influence how things turn out. The best way to influence the future is to think carefully about what we want it to be and what we can do today to move in that direction.

GIA is proud to sponsor this Rapaport Special Supplement, *How to be ready for a digital-first future.* Even if we can't be certain about the future, we can be sure that it will be digital, because digital-first is no longer the future; it's the present.

Digital technology is integrated into every part of our life today – in every experience we have, in every decision we make, and in every transaction – whether we are buying or selling. Being ready for the digital present starts with a deep understanding of consumers' needs and desires. What products and services do they want? How do they want to receive them? What experience do they expect? If you understand these, you can meet their needs and desires digitally or physically with a seamless omnichannel experience. You and your customers will grow and evolve together.

GIA has focused on that evolution for our Institute since our earliest days.

Correspondence courses for jewelers based on university lectures became classroom instruction supported by microscopes and refractometers; then globally available online courses, now supplemented by wildly successful webinars, the GIA Knowledge Sessions. And now, we are sharing knowledge with consumers through social media.

4Cs worksheets from those early classrooms became handwritten diamond grading reports. Those became printed reports – millions of them produced every year – with high-resolution images and multiple security features. And soon, all those reports will be fully digital, with enriched information beyond the 4Cs that is securely at consumers' fingertips on their mobile devices, when and where they want it.

Diamond grading in GIA laboratories depended on carefully assembled sets of master stones for color grading and detailed plots for clarity. In the 1970s, we introduced the first colorimeter. Today, GIA-developed instruments and proprietary algorithms use the data from decades of detailed observations by GIA experts to help grade both color and clarity.

At every step, we looked ahead, looked at what we were doing and asked, "How can we prepare for what we think is coming?" It is the same in every part of the gem and jewelry industry – mining, manufacturing, design, gemological education, laboratories, and retail. The best way to succeed in today's digital-first environment and to prepare for the future is to ask that question so we can be ready for changes that we do not expect.

Our CEO, Susan Jacques, often refers to another quote, attributed to Charles Darwin: "It is not the strongest of the species that survives, nor the most intelligent. It is the one most adaptable to change." Being ready to adapt to the changes happening today and that will happen tomorrow is how we will survive and thrive in the digital-first future. ∎

> At every step, we looked ahead, looked at what we were doing and asked, "How can we prepare for what we think is coming?"

LEARN TO SPEAK THEIR LANGUAGE

Marketing expert Laryssa Wirstiuk discusses effective ways for businesses to reach digital natives.

BY LEAH MEIROVICH

Why is it so important to market to digital natives differently than marketing to previous generations?

Digital natives understand how to find any information they could ever want about a jewelry business and their products, from how well the business or product is reviewed by other customers to what a piece of jewelry might look like styled on a model and beyond. They know how to cross reference content on various platforms, get discounts when available, and comparison shop on Google. You can't pull the wool over their eyes, and you have to give them what they want – information, transparency, ease and convenience. They're not as brand loyal as other generations, and they won't hesitate to hop to another brand if you're inconsistent and disingenuous with your marketing.

What specific types of things are they looking for from retailers that will make them more likely to make a purchase?

Above all, they want transparency and connection. They want to know the origins of the materials as well as what the retailer represents and the company's values. They want to feel connected to a brand story, and they're not just shopping for price and product quality. Retailers today that are using a good price as their sole unique value proposition will likely not attract most digitally native consumers. These customers are looking for the total package – and are more concerned with value and what that represents, not just price. They also want to feel seen and heard. They want to know that the retailer has the customer's best interest in mind, from readily available customer service to flexible return policies and fast shipping and beyond.

Is social media the key to reaching and marketing to this generation?

Social media platforms such as Instagram and TikTok are just the distribution channels. The content and the messaging need to be right in order to attract and resonate with members of this generation. They also respond well to SMS marketing, and email marketing is still extremely effective. In addition, they want to be part of community experiences such as live and virtual events. Many of them are also interested in livestream shopping and NFTs, so retailers need to constantly be looking ahead at the latest trending technologies in retail.

Is it better to beef up online offerings versus in-store in order to have more appeal?

I've personally found with clients that online offerings should be more curated than in-store offerings to help create focus in the digital marketing efforts. If you have too many products on your e-commerce website, then it's ultimately hard to choose which ones to feature in social media, email, and other campaigns. In a store, a salesperson is the gatekeeper to help guide the customer toward a specific product. But online, a retailer's e-commerce shop is kind of like the Wild West if it has too many products and too little focus.

How can businesses create digital experiences that will catch the attention of this generation?

Digital natives are really seeking to be in a community with a brand and other people who also love it, so if you can create digital experiences that bring together consumers in a community-oriented setting, they will respond best to that. They want to feel like they're part of a movement or a club.

How important are real moments (using real people, real situations, etc.) within digital advertisements?

This is extremely important, especially for Gen Z. This generation actively rejects the polished, curated look of Instagram models and influencers. Instead, they want real, unedited content.

Are influencers important for a business to appeal to this generation?

Influencers are still important, but many of my clients and brands in the industry have the most success with micro-influencers and brand ambassadors who can develop a long-term relationship with the brand. One-and-done collaborations with big-time influencers are not effective. Long-term relationships with lesser-known influencers help create consistency, trust and authenticity. Also, many Gen Z'ers reject the polished and curated look that many influencers have. They'd rather see product recommendations and endorsements from real-life customers.

Does a business need to have a clear purpose, such as donating to help the environment, minimizing greenhouse gas emissions, and so on, in order to gain loyalty?

A purpose is important to digital natives, but only if it's authentically aligned with the brand and not a bid to get attention. The term sustainable is extremely overused in the jewelry industry, to the point that it doesn't mean anything. If a company feels passionately and genuinely aligned with a cause, that's more important than supporting a cause for the sake of marketing. ∎

WHO IS

LARYSSA WIRSTIUK?

The founder and creative director of Joy Joya, a digital marketing agency for jewelry brands, Wirstiuk is the author of the book Jewelry Marketing Joy and the host of the Joy Joya Jewelry Marketing Podcast. She has also spoken at JCK, AGS Virtual Conclave, and Jewelry Ecomm Live.
joyjoya.com

CRYPTO RISING

Jewelry retailers discuss why they have adopted cryptocurrency
in their business. Is it right for you?

BY LARA EWEN

C ryptocurrency might be a volatile market, but it is not a new one. Reeds Jewelers, with 65 stores, and California jeweler Stephen Silver, with two locations, have both been accepting crypto since 2014. In subsequent years, a few stores have joined them, including Marks Jewelers in Pennsylvania and Oliver Smith in Arizona. Still, crypto has largely been the purview of online-only stores and luxury watch resellers.

Hemal Nagarsheth, partner in the financial services practice of Kearney, a global strategy and management consulting firm, confirms the trend is still young. "We have observed

cryptocurrency being introduced as a payment option via partners for some boutique jewelry merchants, and one prominent online luxury marketplace, as well as stated plans for acceptance by various luxury handbag and watch brands," he says.

Why stores are taking the plunge

More and more retailers are testing the waters, confirms Jon Bumann, general manager at Chalmers Jewelers, with two locations in Wisconsin. His stores began accepting major cryptos, such as Bitcoin, Ethereum, and Litecoin, in April 2021. "The market was doing well, and I had been mining it, and then

Shopify allowed that to be an option, and said they could accept it through Coinbase," he explains. "Our dive into them stems from the allure of lower processing fees, faster payments, less potential for fraud, and zero chargebacks."

In March 2022, Continental Diamond in St. Louis Park, Minnesota, became the first store in the state to accept cryptocurrency. "We already accept all kinds of items in exchange for our product," says Andrew Furman, manager of his family's second-generation store. "We do trades all the time. We take people's old gold on trade. We take people's diamonds on trade. We take people's fancy watches on trade. So why not accept cryptocurrency as well?"

Yet, Nagarsheth relates that consumer acceptance is slow. "We have found, in our consumer surveys, that there is not as yet a significant base of cryptocurrency usage. Affluent consumers, [such as] those with annual income greater than $200,000, [value] convenience and rewards when deciding which payment method to use for a purchase."

Who is the crypto customer?
Bumann notes that most of his crypto customers are men under 35, who purchase fashion jewelry, engagement rings, diamond studs and gold chains. "They made this money, [and] if they see the market starting to dip, they want to go buy something," he says. "I see that same thing when the stock market fluctuates. People pull their money out and come in and buy gold."

Crypto could also appeal to shoppers looking to avoid international transaction fees, reports Nagarsheth. "Cryptocurrency could hold appeal to purchasers who face friction and high costs when having to transfer fiat money [coin and paper currencies] across borders. There could also be appeal and added value for consumers in high-inflation markets who may see potential future appreciation of cryptocurrency as a built-in hedge to store assets, versus fiat money accounts."

How to accept digital currency
Setup is easy, and fees are low, stresses Bumann: "You could set up a digital wallet in 10 minutes." He confides that the fee to transfer crypto to his bank is low and based on network usage. "We might move a few thousand dollars, and it might only cost us $1.00 or 40 cents. And that's the only fee we pay." He adds that he is constantly reevaluating his strategies and now only accepts USD Coin (USDC), an Ethereum-based stablecoin pegged to the US dollar. If customers want to buy something from his store with another type of cryptocurrency, they need to first convert their currency to USDC — and the customer pays the fee for that conversion.

Some stores don't even use digital wallets, remarks Furman.

"We didn't have to set up a digital wallet, because we're using Bitpay. They let you instantly convert your crypto to US dollars, or [you can] keep a percentage of the payment in crypto." He says that his transaction fee is "similar to a credit card fee."

Understanding the challenges
One of the biggest challenges associated with consumer adoption of crypto is messaging, declares Nagarsheth. "Convincing consumers that they can securely make large-value purchases with cryptocurrency will present a headwind, especially as breaches gain prominence in media reporting." He also notes a lack of consumer awareness and sophistication regarding cryptocurrencies, and that "marked declines in value for leading cryptocurrencies may dissuade future interest."

Furman sees cryptocurrency as an opportunity. "It's opening up a new market for customers to buy. It's really just a new payment method. And any way we can make it easier for our customers to interact with us, as retailers, in my mind, is a win," he says. "We need to figure out how to make our transactions as easy as possible for our customers. And the easier we can make it, the more we're going to sell."

Eventually, crypto will be widely accepted, concludes Bumann, adding: "Companies like Coinbase already offer debit cards that allow consumers to pay for their purchases at any retailer that accepts Visa. Your store may already be accepting converted crypto and you don't even know it." ■

> Our dive into [crypto] stems from lower processing fees, faster payments, less fraud and zero chargebacks

> We do trades all the time. We take people's old gold on trade. We take people's diamonds on trade. We take people's fancy watches on trade. So why not accept cryptocurrency as well?

LINKS IN THE BLOCKCHAIN

Whether to improve transparency, be appreciated as artworks or to raise money for charity, diamond and jewelry NFTs are becoming firmly entrenched.

BY SONIA ESTHER SOLTANI

What started as an April Fool's joke — the fake launch of Tiffany & Co. cryptocurrency, TiffCoin — by August evolved into the successful sellout of non-fungible token (NFT) pendants depicting CryptoPunk digital art figures. The LVMH-owned company released 250 digital passes priced at 30 Ether (about $50,000) against which buyers could redeem a gem-set custom pendant, as well as a digital artwork of it.

With Tiffany, under the leadership of executive vice-president of product and communications Alexandre Arnault, now embracing NFT tokens, diamond and jewelry professionals might look at NFTs differently. So far, only leading brands and auction houses have explored the opportunity to offer something novel and exciting to collectors. Companies that have met the challenge include Bulgari, Gemfields and Kendra Scott, as well as Christie's and Sotheby's.

The potential for growth of collectibles registered on the blockchain is something artist and jewelry designer Reena Ahluwalia advocated even before Tiffany jumped on the bandwagon. The Toronto-based designer launched the first-ever diamond art NFTs — a limited collection of 10 digital artworks — on the OpenSea marketplace back in December 2021. "I think NFTs are this digital innovation on a rocket ship that is going up and up," she says. "It's already a multi-billion-dollar industry." Furthering her entry into the market, Ahluwalia created an artwork to celebrate Greenland Ruby's fifth anniversary and raise money for the PinkPolarBear Foundation

Clockwise from top: Brand New Vision x Francis de Lara Eve NFT eyeglasses set with virtual Gemfields Zambian emeralds; Tiffany & Co. pendant depicting CryptoPunk #5822; Signum's crypto-art bunny.

supporting polar research. Participants in the raffle received a free animated NFT version, demonstrating how art, technology and fundraising could blend harmoniously.

Signum, a metaverse-only diamond company HB Antwerp launched at the end of 2021, has introduced initiatives that show how NFTs offer not only immutable proof of ownership, history, and authenticity but also a chance to support mining communities. Signum reinvested the revenue of the sales of polished diamond NFTs among its Buns.Land community members, who collect digital bunnies, into a non-profit organization focusing on empowering young people from Botswana to become managers.

"This is a great chance to collaborate with our metadiamond NFT buyers, while at the same time contributing to the mining community," says Signum co-founder Shai de Toledo.

Meanwhile, Gemfields marked the sale of Chipembele, the largest high-quality emerald to date, by releasing an NFT series. The Chipembele Crash, comprising six rhinoceros avatars minted by Gübelin's Provenance Proof, raised funds for the North Luangwa Conservation Programme in Zambia. Gemfields has also partnered with Brand New Vision — a platform for fashion NFT sales — and fine jewelry-eyewear brand Francis de Lara to create NFTs inspired by real-life glasses.

Whether NFTs are accompanying physical and digital items, or purely living in the metaverse, there's no doubt they're more than a fad and can offer jewelers a wide range of opportunities to enhance services to their clients and improve transparency in the industry at large. ∎

The GIA Match iD, when paired with the GIA App, can capture a diamond's inscription image and link the stone to its GIA report using Artificial Intelligence technology.

GIA 1172118

GIA Match iD™

GRADING MYTHTAKES

Pritesh Patel, senior vice-president and chief operating officer of the Gemological Institute of America (GIA), clarifies some of the misnomers associated with AI diamond grading.

BY LEAH MEIROVICH

Although artificial intelligence (AI) has been around for decades, many of the ways in which it works remain murky in the eyes of much of the world. And while that is not a problem for technology companies or labs such as the Gemological Institute of America (GIA), it can be for many consumers.

The industry continues to make strides in using AI for a number of diamond-related advancements, including mining, cutting, polishing and grading. But when it comes to consumer-facing segments of the industry, such as diamond grading, several myths prevail that could ultimately harm the trust bond that's so important to the trade. And like most myths, what people believe to be true and what the truth is can often be two very different things.

Why do these misconceptions happen? Pritesh Patel, senior vice-president and chief operating officer at the GIA, believes much of it comes from the hype surrounding AI and the fact that it is a bit of the "flavor of the month." Because AI is often presented as something beyond its current capabilities in many popular movies and books, this can drive confusion. And, in general, fear of the unknown can also play a factor. ▶

The human element

One of the most prevalent myths surrounding diamond grading is that AI can – and eventually will – replace skilled experts, says Patel. The truth is that, while AI can support diamond grading by automating evaluation of the 4Cs, there will always be a need for human graders with experience to detect things such as treatments and other complex issues that require grading skills that technology just cannot duplicate.

"There's an important role technology plays along with the human," Patel explains. "In certain [areas], the human element is still very much required. Technology is not at the stage yet where you can completely rely on it 100%."

Treatment deduction is a core part of the grading process, and key to consumer protection. Today, there are more sophisticated treatments being applied to diamonds than ever before, Patel notes. The speed at which they evolve makes them too difficult to automate. "What we are dealing with is a human element that only a human can verify, and that's a core part of grading beyond AI," he adds.

Colored diamonds also present a problem for AI to grade, as they are more complex and nuanced, while differentiating lab-grown diamonds from natural requires specialized analytical instruments. "AI is not yet to the point where it can handle the complex interaction of sophisticated instruments and visual observations and analysis by trained experts to determine the growth method and detect treatments," Patel asserts.

Most importantly, and contrary to popular belief, not only will technology not usurp human jobs, but throughout history there is evidence that technology increases jobs, according to Patel. He points out that GIA expects AI to take on tasks that require repeatability and speed, which will free expert graders to move to newer and more complex challenges.

Man vs. machine

The debate over which is better – human or AI grading – is another highly contentious subject. For some, the myth is that humans are less fallible than machines, while for others the opposite rings true. The reality lies somewhere in the middle, notes Patel.

> "For most 4Cs grading, AI is as good as human graders, and perhaps more consistent"

"For most 4Cs grading – cut, color, clarity and carat weight – AI is as good as human graders, and perhaps more consistent," he says. "However, more complex grading tasks, such as higher clarities, treatments and challenging stones, still require trained, experienced staff."

At this time, AI is very close to being expert at grading the 4Cs but is not yet ready to handle the observation and analysis needed for more complex tasks, and it may take some time, he comments. Part of the fear, in terms of AI, is the worry that technology can be more easily manipulated or corrupted in some way. For this reason, Patel sees the necessity for human and technology to work together. "Any grading system needs checks and balances, and rigorous quality control to ensure that its standards are consistently and accurately applied, whether by graders or AI," he says.

Consistently Inconsistent

The idea that somehow AI and primarily automated grading will solve the perceived issue of inconsistency in grading between labs is another myth Patel has heard numerous times. While AI can advance consistency and repeatability within each laboratory, it is less likely to bring about the same stability between different labs. The reason inconsistencies occur, he explains, is because different labs use varying standards and application of those standards when they train AI.

"Our technology is very, very sharp," says Patel. "And the key part here is we're giving it the standards and millions of data points to let it learn over a period of time. So, technology is an advancement of learning at a very, very high level and pace that is harder for humans. It takes a lot of data to train AI. GIA has a unique and unrivaled dataset of information from millions of diamonds. As the technology develops, the time to train AI will decrease, but the need for high-quality, consistent, independent and trusted data will remain."

Patel points out that, although it takes a long time to train AI, the result, when it comes, provides a more consistent outcome on a more regular basis.

"It's so important to get that consistency ▶

AI IN NUMBERS: THE BIG PICTURE

Artificial intelligence isn't just revolutionizing diamond grading, nearly every business sector is bracing for change.

40%

AI technologies' impact on business is projected to increase labor productivity by up to 40% and enable people to make more efficient use of their time.
Source: Accenture

12%

Manufacturing businesses that utilize AI perform 12% better than businesses that continue to use traditional methods only.
Source: Microsoft

46%

of consumers believe they understand AI.
Source: Blumberg Capital

72%

of business leaders say they think AI will be fundamental in the future, calling it a "business advantage."
Source: PwC

49%

of consumers believe people are already losing jobs to technology and are being replaced by computers.
Source: Blumberg Capital

375m

people may need to switch occupational categories and learn new skills by 2030 due to automation's impact on the job market.
Source: McKinsey & Co.

97M

new jobs will be created by 2025 due to the rise of AI, while 85 million existing jobs be will be eliminated.
Source: World Economic Forum

$15.7tr

is the figure AI is expected to contribute to the global economy by 2030.
Source: PwC

36%

of executives say their primary goal for incorporating AI is to optimize internal business operations.
Source: Harvard Business Review

38%

of consumers believe that AI is going to improve customer service.
Source: Pega

The GIA Match iD is powered by the new GIA App and work together to give instant diamond verification.

in grading and, you know, there is human subjectivity," he explains. "GIA's role in developing these technologies is to use our decades of understanding – based on the millions and millions of diamonds that have flowed through our laboratories – and impart that knowledge to the AI so it can work with us in a more consistent manner."

Trust the process

Ultimately, the main goal of any lab is consumer trust. Without that, there is no business. But while consumers want to trust the fashion in which a given lab is grading their diamonds, they don't want to sacrifice efficiency. Patel believes that using AI in grading can provide both. "The key question in grading is always consumer trust. GIA has been working for many, many years to ensure

we bring the technology and the efficiency but protect consumers' trust at the same time."

In the end, Patel hopes the technology will speak for itself in ensuring trust, but the GIA is ready to work with consumers and the trade to show how AI grading works and get the message across that the standards and systems it adheres to are the same as they have always been.

"It takes a long time to earn consumer trust, and you need to work every day to maintain it," he says. "We are working cautiously and deliberately to leverage AI to enhance, improve and extend GIA's diamond grading. The more we learn – and we are learning a lot very quickly – the more we will know how to use AI to apply GIA's standards to extend our consumer protection mission." ∎

A MATTER OF OPINION

Here's what others in the industry have to say about prevailing AI grading myths.

CONSISTENCY IMPROVEMENT

DAVID BLOCK, CEO, SARINE TECHNOLOGIES:

"The big difference, in the end, is the consistency. The system will do the same action again and again, whereas human beings… maybe a mood impacts their ability to grade. The technology basically mimics the methodology of grading done by people, but in a much more accurate and consistent way. In fact, I'm so sure about that, I'm willing to challenge any entity or any grading lab to compare manual grading to technology. There is a dramatic difference in terms of consistency. Manual grading is [only] as consistent as the training of the graders, and the capabilities and processes within the lab."

ANDREW RICKARD, VICE-PRESIDENT OF OPERATIONS, RDI DIAMONDS:

"Feedback from our customers shows there were frustrations with the current state of grading, with the inconsistencies. The [lack of consistency] creates confusion. There is a need and a desire, not just from the consumer, but also from retail partners to say, 'we want a more consistent product; we want a situation in which you send us a diamond, and the diamond matches the document.' In a lot of circumstances today, that's not happening. That's really why we expanded into AI, and we see a bright future. We're seeing tremendous growth with our brand as a result of the consistency we are able to deliver."

TECHNOLOGY VS. HUMAN GRADING

DAVID BLOCK: "When you talk about technology, you can now start including evaluation of [different] parameters, which becomes very, very difficult doing by a manual process, because it becomes time consuming and very complex when you do it manually. With technology, you can start adding additional parameters and really narrow down what…you are looking for."

NITIN KUMAR DHADDA, CHIEF MANUFACTURING OFFICER, KGK:

"The manufacturing industry needs something which is automated, and if you see the evolution, quality processes have been improved with AI grading. It improves your decision-making power. So, I see wider benefits coming from technology in the future."

ANDREW RICKARD: "I don't think the consumer cares if a diamond was graded by a human or a machine. I think the consumer cares that it's accurate, and that the document matches the product. At the end of the day, [AI] can provide more consistency, so I think consumers are going to buy in to that story. We are seeing it happen."

GREATER EFFICIENCY

DAVID BLOCK: "I think the biggest revolution of automated grading is the ability to transfer that technology closer to the source and [make] it dramatically more efficient, both in terms of cost, and in terms of cycle time. Later this year, we will start seeing technology placed at the end of the manufacturing cycle, where today there are manual grading departments. At that point, you will be able to scan the diamonds for the large majority of the grading parameters and know the results without having to send them for grading. That will save cycle times that today are one to one-and-a-half months, sometimes longer, because of shipping. It will save on insurance costs."

NITIN KUMAR DHADDA: "There are around 96 steps a single diamond has to move through to become a finished product. If there's an AI that can determine [things like] is this diamond an SI1 [clarity] or an SI2 [clarity], and that transformation happens within the factory, the decision level, right from the start of planning a stone, becomes more accurate."

WILL AI USURP HUMAN JOBS?

DAVID BLOCK: "We see the human role [operating] alongside the AI in the grading space. In the near future, you will see an enhancement of skills when people that have low-level, repetitive jobs [are] introduced to technology that will enhance their skills. As they become computer literate, they will start working on advanced technology. I see a change in jobs: graders shifting to be technology graders, not necessarily using their own grading skills but operating and interpreting the technology. I think there will be a lot more people involved in the grading space in five years, so I see the grading space growing due to technology, rather than shrinking."

NITIN KUMAR DHADDA: "If we lose a person in the grading department due to technology, we're going to increase a person in the planning [division]. Losing manpower won't be an issue as far as manufacturing is concerned. It will just be a shift of process… from grading to planning."

ANDREW RICKARD: "I don't think it's going to be a complete abandonment of utilization of people. There's an expertise there, there's an intelligence there. I think certain aspects of grading can be done with technology, which will make it faster and more consistent, but I don't think humans completely go away. I think it's going to be a balancing act, honestly." ∎
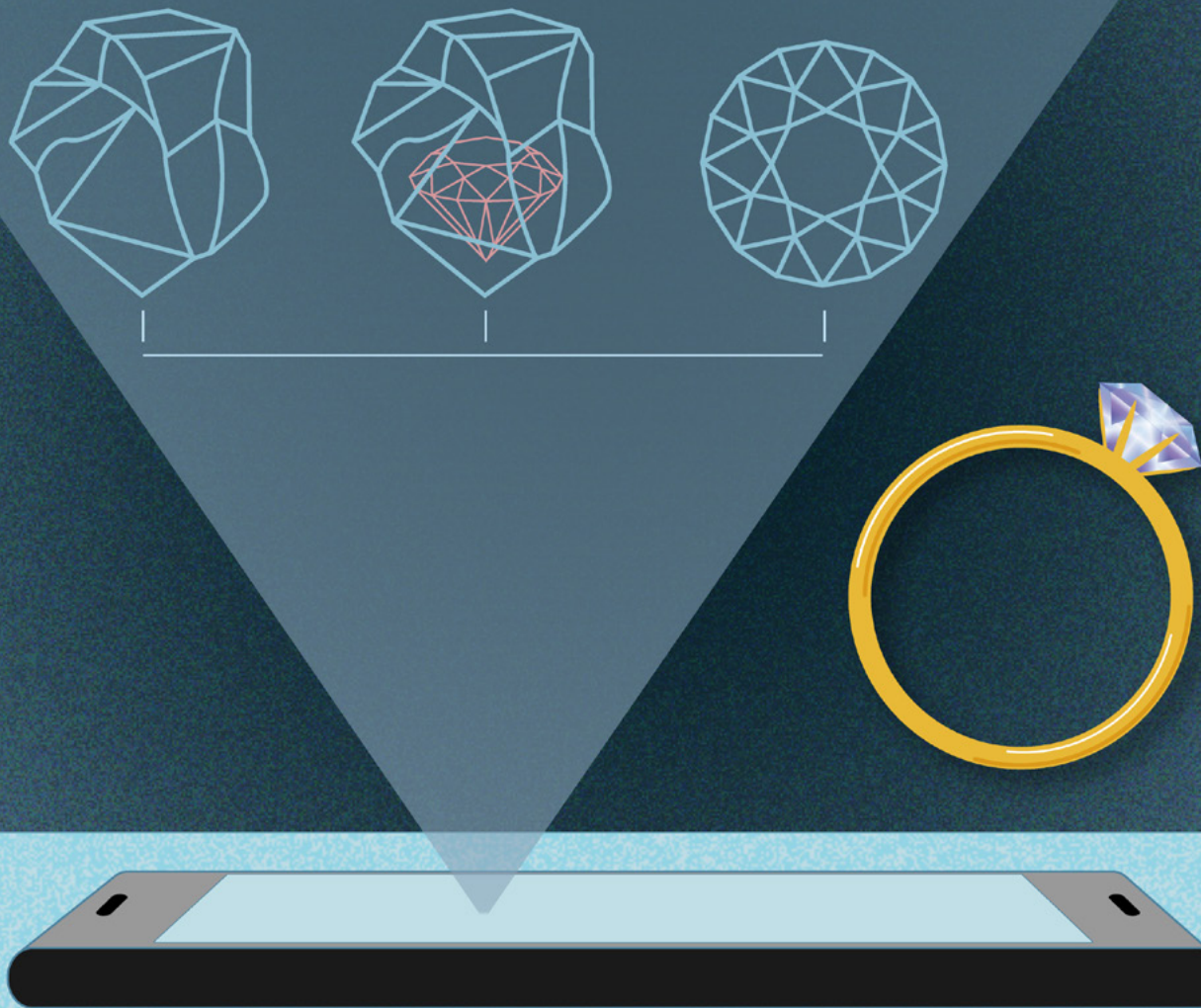
These comments were shared by participants of Rapaport's 'Automated Grading and the AI Revolution' webinar on May 17, 2022.

SHARE THE JOURNEY

Significant new technologies offer transparent and reliable ways
to share a diamond's journey with consumers.

BY RACHAEL TAYLOR

Referring to diamond traceability, Feriel Zerouki, senior vice-president of corporate affairs at De Beers Group, states, "End clients have shifted their expectations from 'tell me' to 'show me'". As she points out, it is no longer enough to spin a good yarn about sourcing and ethics; consumers want proof – a demand accelerated by the sanctions on Russian diamonds.

As Rajiv Mehta, director at diamond supplier Dimexon, puts it, "It's literally like the weather. Is it raining or not? Is it ethical or not? There's little to get away from." The company was one of the early pioneers in diamond traceability, setting up a bespoke tracking system in 2006 with tech provider SAP. In July, it released an ESG (Environment Social Governance) report in which it pledged to deliver 100% traceability on diamonds of 0.18 carat and above by 2023 and on all mixed parcels of diamonds weighing less than 0.18 carat by 2025.

De Beers has hitched its wagon to blockchain technology, with its own Tracr solution. Launched at scale earlier this year, Tracr uses "a combination of blockchain, artificial intelligence, and pipeline integrity." When it comes to communicating with consumers, De Beers relies on its Code of Origin serial numbers etched onto the table of diamonds of 0.3 carat and larger. Consumers can type in this code, which is printed on a card provided with purchase, to download a full report that not only provides information on the diamond's journey, but also highlights the positive social and environmental impacts of purchasing the stone.

"An increasing share of end clients want to make sure that their diamond's values match their own, so issues of provenance – not just where a diamond came from, but how it was recovered and how it has benefited people and the planet – are becoming more significant," Zerouki explains.

Promoting the positives of mining, rather than just negating the negatives, could be an important marketing role that diamond-tracing technology could fulfil, suggests Howard Levine, managing director of diamond trading platform Diamnet. "This is a pivotal time for natural diamonds and the only opinion that really matters is that of the consumer," he stresses. "Some mines have been extremely beneficial to the economy of the countries where they reside, creating schools and hospitals, and yet this remains the exclusive knowledge of those who do their research online. Why?" Levine also wonders if traceability that links back to exact mines could lead to price variance, with consumers willing to pay more for quality stones from low-yield mines due to rarity or sites known to operate to high ethical standards.

> "Some mines have been extremely beneficial to the economy of the countries where they reside, yet this remains the exclusive knowledge of those who do their research online. Why?"

Strong tech-backed traceability could also offer consumers confidence when buying diamonds on the secondary market, reasons Sébastien Taupin, business development and partnership manager at Aura Blockchain Consortium, which was founded last year by LVMH, Prada and Cartier. "The supply chain will no longer be a hidden chain of events but directly linked to the product itself," he affirms. "Customers will be able to access their product history, verify the product authenticity, register for after-sales services such as repairs, and transfer their ownership [and therefore authenticity] in case they choose to sell their product."

Louis Vuitton has been using Aura blockchain to shore up its diamond traceability promise to end consumers, with the launch of its LV Diamond Certificate in July. The certificate lists the diamond's Four Cs credentials, as well as laying out a roadmap of the diamond's journey from country of origin through all the workshops the stone passes through on its way to a store. The LV certificate is being issued for jewels set with a central diamond in its LV Diamonds collection that features its own bespoke diamond cut in the shape of the brand's signature monogram flower.

This year, Aura teamed up with gemology technology company Sarine Technologies to offer a solution specific to diamonds that combines Aura's blockchain technology and Sarine's capability to scan diamonds at various stages throughout the supply chain to ensure an authentic log. The process starts with a digital scan of the rough and then further scans the stone after every modification. Each scan is checked against the previous one in the chain to ensure that it is the same diamond, therefore offering retailers and consumers rock-solid traceability.

This information is then packaged into a report, which retailers can customize, that provides the end consumer visuals of the evolution of their diamond from rough to polished using engaging graphics. Consumers can also reverse check their diamond at any time by placing it – loose or mounted – into a Sarine scanner that will use the physical properties of the stone to connect to its unique report for proof of provenance.

"Trends like online purchasing, consumer demands to disclose diamond provenance, and diamond traceability, as well as having a richer in-store experience, are putting pressure on retailers," observes David Block, chief executive of Sarine Technologies. "The Sarine Diamond Journey traceability solution displays the fascinating transformative story of a diamond, displaying, in an engaging visual manner, how it's being transformed from a rough stone until the consumer receives a beautiful, polished gem." ∎

SOCIAL GROWTH

Experts discuss how companies can use technology to make their businesses more socially responsible with sustainable goals.

BY DIANA JARRETT

Most businesses with a fundamental grasp of digital technology understand its benefits in tracking progress against its sustainable goals. Yet, they worry about the risks of privacy breaches. Digital technology, while a tremendous boon to success, must successfully manage sustainability challenges. Mitigating the risks while advancing its benefits is an ongoing mission that hasn't yet been resolved.

Digitalized technology dominates every aspect of modern life. Online shopping and banking, along with myriad social media platforms, desensitize us to the risks involved. "We find all that normal, and do not always realize the risks of hacking, phishing, identity theft or online fraud," notes Erik A. Jens, founder and CEO of LuxuryFintech.

"Lenders, banks and investors use ESG [Environmental, Social, Governance] portfolio strategies to allocate their resources. Unsustainable companies will become unbankable, uninsurable, and without (political) friends," says Patrick Slavenburg, Advisor on AI and ESG to the EU Commission. Looking to the jewelry trade, he adds, "On the other hand, those jewelry businesses that can prove they perform better than the industry average will be rewarded with lower capital and insurance costs."

ESG has broad implications within the jewelry trade. Pritesh Patel, GIA senior vice-president and chief operating officer, asserts that the institution is making impactful strides in key areas of ESG sustainability. With a focus on reducing environmental impact, "GIA is moving to all-digital reports by 2025, saving 20 tons of paper and 18.5 tons of plastic each year, and reducing transportation-related carbon emissions," he explains. But the sustainable solutions extend far outside the institution itself. "Providing artisanal miners in Africa with basic gemological knowledge so they can derive greater benefit from the gems they mine is a tremendous value added to the residents in these mining regions," Patel adds. He says GIA is also committed to "bringing greater transparency to the supply chain with verified diamond origin information through the GIA Diamond Origin Report and GIA Source Verification Service."

Creating confidence in consumers that their purchase is authentic and responsibly sourced is essential today. "Another example, unique in the colored gemstone business is Greenland Ruby," notes Jens. As the first Responsible Jewellery Council member in the colored gemstone sector, "it tracks each stone from mine to market with RubyCloud, and includes a certificate of authenticity," he affirms, adding that besides building trust with a consumer, this tracking adds to the company's story.

Energy savings, though hard to generalize, can come from practical efforts, Slavenburg offers. "Jewelry retailers can reduce their monthly energy costs to virtually zero with a one-time installation of CAPEX-type solar panels. Rooftop solar is a visual cue that they walk the walk when discussing sustainable diamonds, recycled gold, or ethically mined artisanal gemstones. It's not only worth a price premium but also an increase in CLV [Customer Lifetime Value] as well," he stresses.

"The biggest mistake medium and large businesses in our industry are making is thinking that they can run an analog business in a digital world," states Elle Hill, founder and CEO of Hill & Co. "Basic business tenets do not change when it comes to how to grow a business, but the tools we use to hasten and streamline growth have changed dramatically."

> "The biggest mistake businesses are making is thinking that they can run an analog business in a digital world"

Hill claims many businesses don't understand why they're encountering slowing growth. "When we take even a cursory look at the organization and how it is attempting to grow, we see that they are racing bullet trains on bicycles," she confides. They are running their businesses on excel files with no technology to support operations, such as CRM [Customer Relationship Management], integration software or workflow automations. She observes companies, "often running their businesses on excel files without standard operating procedures memorialized or worse, no knowledge of what a workflow is."

Hill sees opportunities to effectively support sustainability within the digital space. "It is our job as business leaders to do the work of understanding the new tools so we can serve our teams, our customers, and the greater community better," she declares. "Expecting growth to keep pace with businesses that are supporting systems and operations with today's tools is foolish. Who would say, 'no, thanks, I don't need a match... I'll just keep rubbing these sticks together?' Many business leaders are doing just that by not embracing technology to underpin operations."

In the end, Jens concludes, "technology will be an enormous enabler when we talk about security, provenance, authenticity, traceability, and knowing and proving what is right or wrong independently and immutably." ∎
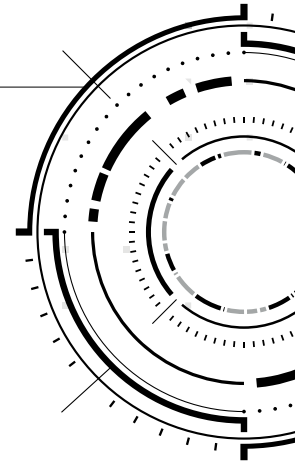
HELP WANTED

What piece of technology do you wish would be invented that you feel would improve your jewelry business?

ELLIOT SPICER,
CEO, SPICER GREENE JEWELERS, ASHVILLE, NORTH CAROLINA

I actually just invented the technology that we thought would improve our business. It's an inventory-management system we are calling the Diamond Bar, and it's a diamond-selling system that leverages the power of technology and pricing to map out the price of diamonds. We built a database that contains about 1.1 million diamonds across the world that are listed for wholesale. We can then map out the price of a diamond based on this by pulling information on every diamond in the world that matches it. We then take our retail markup, and then list the price at which we would be willing to buy the diamond at any point in time, regardless of where it was purchased. This allows our customers to be privy to the back end of the industry, so we are kind of lifting the veil in the industry in terms of the pricing to make it fair for the customer.

AMANDA COLEMAN-PHELPS,
OWNER, NELSON COLEMAN JEWELERS, TOWSON, MARYLAND

I know there are a ton of CRMs [customer relationship management programs] out there, but I feel that we would do so well to have a CRM that integrated with our point-of-sale system and also communicated with our email systems, no matter what we selected, to automate the majority of our processes. That would be fantastic.

**JOHN HENNE,** OWNER,
HENNE JEWELERS, PITTSBURGH, PENNSYLVANIA

What I would really like is a super easy, user-friendly means of doing a video call with a customer that had multiple camera angles that could show me on screen at one angle and the jewelry in front of me at another, so I can work with remote customers better. You can do a call with Zoom or FaceTime, but you have to set up different cameras, and that makes it quite complicated. I want something that has it all in one and is easy to use.

KELLY NEWTON, OWNER,
NEWTON'S JEWELERS, FORT SMITH, ARKANSAS

Our biggest problem is having enough help in the store to keep the customers busy while we help other people. Right now, we have so much traffic, we are getting annihilated. What we really need is an in-store, interactive chat bot to help waiting customers whittle down what they are looking for and show them different options. That way, it entertains them while they're waiting and it minimizes time spent with them because we already know what they're looking for by the time they get to us.

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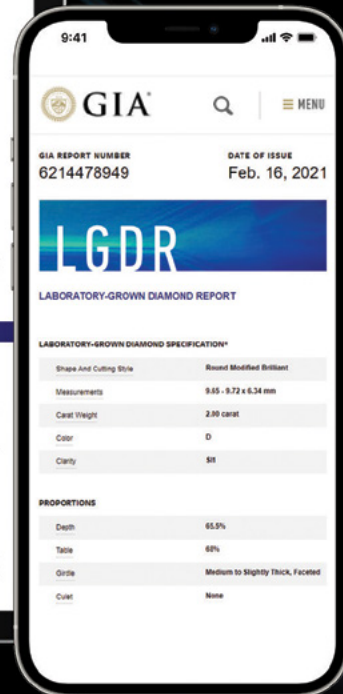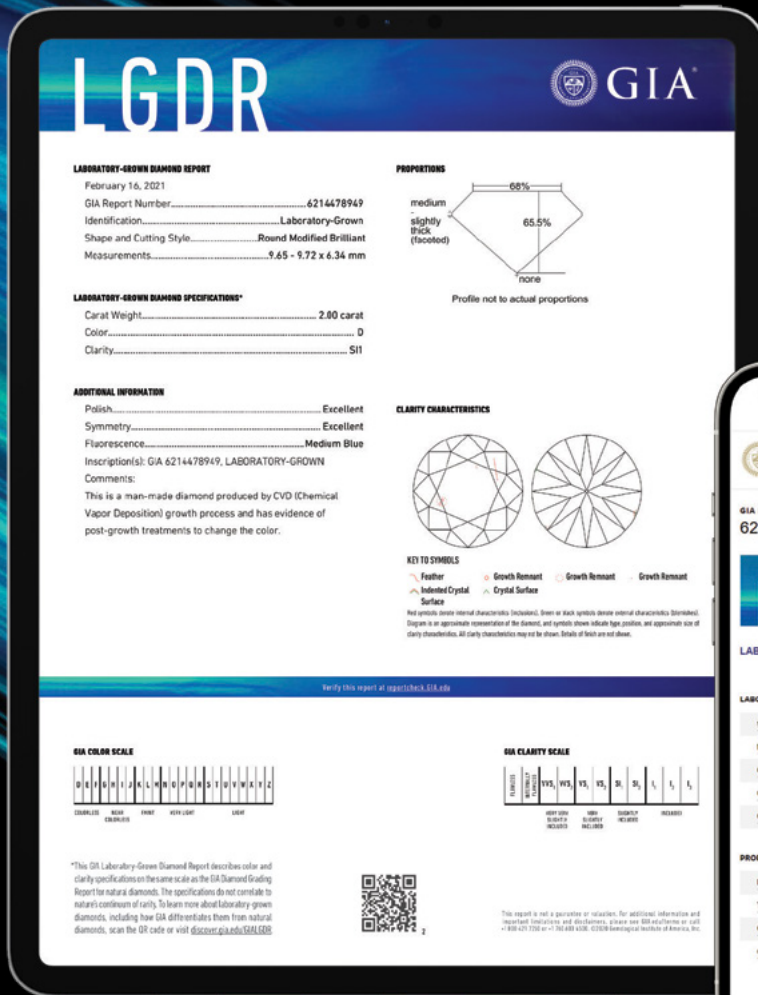
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