Fit Me—the Right Size for Online Apparel Sales

By Craig Crawford

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I f there is a silver lining to the recent Covid-19 pandemic, it's that the resulting increase in online shopping has created a surge of size/ fit data—giving brands the opportunity to make better fit recommendations to consumers, bypassing the challenges often encountered when comparing a consumer's actual measurements to product specification size charts.
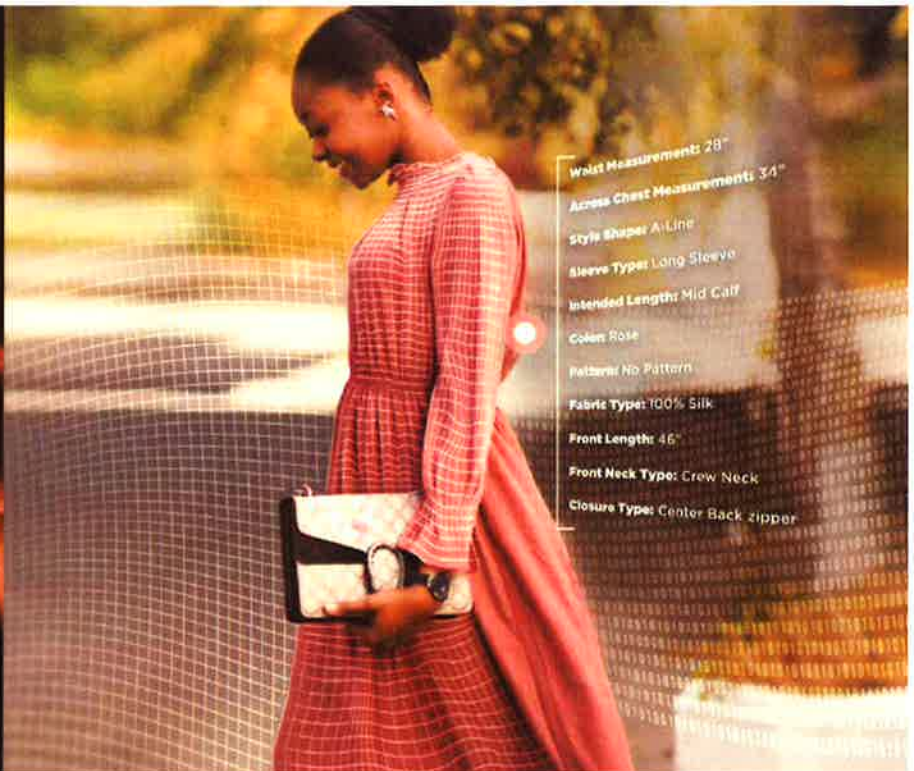
Feature

PHOTO CREDIT: TRUE FIT

Using available customer purchase and return history across multiple brands, applications such as True Fit, a platform that plugs in to apparel e-commerce sites, make recommendations to consumers on which sizes are likely to fit within a given category. The algorithm works something like this: "customers like you bought this brand's skinny jeans in size 10."

True Fit's Fashion Genome—the largest connected data set for apparel and footwear—aligns more than 17,000 brands' product data with hundreds of billions of dollars of consumer transaction purchase data for 250 North American, European, and United Kingdom retailers.

"We are in an interesting time now," explains True Fit Chief Product and Marketing Officer Romney Evans. "We are seeing a seismic shift to digital due to Covid-19." True Fit began collecting data in 2011 with Macy's and Nordstrom and, since Covid-19, has seen a 140% increase in usage from existing clients, he says. "We estimate we have between 5-10 million new True Fit consumers per month."

"No dressing room? No problem," Evans adds. "Our clients are using True Fit to enhance contact free experiences in store. We also enable buying online and curbside pickup. It all adds up to consumers and retailers adapting to a world with fewer dressing rooms. We help remove uncertainty and help consumers find things they love and want to keep. And we help eliminate online shopping fatigue by curating products based on a consumer's size, price preferences, and stock availability."

To create a profile on any e-commerce site that hosts the application, a consumer answers questions about measurements and age (the distribution of body weight changes as the body ages). This data is securely stored in the Genome and moves with the consumer wherever they shop, provided those brands have the True Fit plugin. "We are like a PayPal account for fit," Evans claims.

The success of the recommendation is based on the quantity of two types of data; consumer and product sales/returns.

But does it work?

According to Evans, brands are reporting order rate increases of 35% to 45%.

"We've seen an increase in sales and a decrease in returns across those categories for which we implemented True Fit," says 7 for all Mankind Senior Manager of E-commerce, Enrico Fantaguzzi. The 7 for all Mankind brand has been using True Fit for two years, and rely on it for fit recommendations for core styles: menswear and womenswear bottoms.

"Based on the specificity of the garment, the algorithms learn and adjust," Fantaguzzi explains. "For example, if white is returned because it is too tight, the AI engine will tweak the recommendation to a size bigger. And we can also use the data from True Fit to adjust our product development specs based on reasons for return."

True Fit also provides brands with data insights to help with merchandising, assortment planning, and product development. "While we don't share brand data, we can inform a brand how they are performing in product categories across the market," Evans

explains. "We can also identify growth opportunities by informing a brand on missing product categories that their consumers are buying elsewhere."

"With the launch of each new product category/ style, we have to accumulate product data to improve recommendations," Fantaguzzi says. "In practice, you need a lot of data." For new products, it can take up to a week to gather enough data to train the algorithm which improves over time.

Other brands that use True Fit include Lane Bryant and Levi's, who have also integrated the application to chat bots to recommend sizes or curate styles for consumers.

Fit Analytics, a competitor to True Fit, uses similar logic, and is deployed on e-commerce sites such as Hugo Boss and ASOS.

Fit Analytics began about a decade ago as a webcam-based body modelling solution that allowed users to create personalized fit profiles. But the company evolved that strategy into a fit analytics platform as consumers found the self-measuring step too much to do for online shopping. The firm now offers four technology

solutions—fit finder, fit connect, fit consult, and fit intelligence—allowing brands to offer personalized fit recommendations and garner actionable insights from the vast amount of data they harness.

Fixing the Real Problem

The challenge of apparel fit has little to do with e-commerce and a lot to do with its origins. Today's sizing and grade rules are based on measurements originally taken for military uniforms at the time of the US Civil War. It's the only data early ready to wear manufactures had available. Over time, this has been modified and tweaked by brands to include vanity sizing, resulting in no fit standards across any one product category. A medium men's shirt for example, is not the same across all brands.

More than two decades ago, TC[2], an apparel technology consultancy firm, launched 3D body scanning technology for the apparel industry, to help with the fit problem. As the technology evolved, and scanners became smaller, brands like Brooks Brothers began installing the scanners in retail fit rooms.

PHOTO CREDIT: HUMAN SOLUTIONS

ISIZE PORTAL AVATARS; PHOTO CREDIT: HUMAN SOLUTIONS

But the uptake was slow—many consumers aren't comfortable being scanned in stores and the interpretation of body scanning data to apparel products is dependent upon a number of variables, such as material properties and personal fit preferences. A lot of brands still don't trust the data.

"Many creative people don't think they have a problem with fit," says Andre Luebke, general manager of Human Solutions North America, a technology company specializing in 3D body scans, 3D product development, and avatars. "Then we go to other teams within the same brand, and *they* say, 'Yes, we have a problem.'"

Human Solutions 3D body scanning origins are rooted in the German automotive industry. Human Solutions 3D Body scans are used to create mannequin specifications that help car engineers design automotive interiors that are ergonomically appropriate for drivers and passengers. The airline and space industries also use the technology for similar purposes. In 2008 Human Solutions launched sizing and fitting services in Germany under the guidance of a 20 brand advisory board, including Hugo Boss and adidas, who requested that the data be made available on a portal.

After extensive research scanning more than 18,000 North American men, women, and children, and then evaluating that data for the apparel industry, Human Solutions launched the iSize portal at the end of 2019.

"The portal is a game changer," explains Luebke. "In North America we see that we are more diverse, and getting bigger. This is what the population looks like and it is very powerful. You can't argue with this data, and we see that brands are now starting to trust the data."

In addition to data from the North American scans, iSize also contains data from Italy and Germany, allowing brands to filter data based on gender, region, and body measurements to compare product sizing against actual body scans.
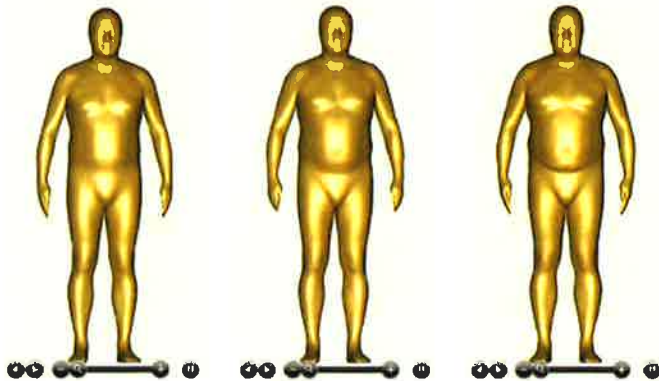
"We have the largest data set of human anatomy for use in multiple industries," explains Jamie Campbell, Human Solutions manager for fashion sizing and fitting. "This allows a brand to adjust their size and grade rules accurately for their customer demographics."

A Scanner in the Palm of Your Hand

With the advances in smartphone camera technology, consumers can now scan themselves with apps like Sizolution, a technology provider whose AI-driven size prediction engine aligns a consumer's body measurements with a brand's product specifications. Take a full length "selfie," and the app determines your key points of measure.

"We started five and a half years ago with full booth body scanning and research from MIT," explains Vahe Taamazyan, co-founder and managing director Sizolution. "But the booth was too bulky and too expensive. Our app allows customer to scan themselves, create an avatar, and receive size recommendations for products."

"We now have more than 20 companies and over 1.5 million people using the tool," Taamazyan says. "We know a lot about the customer, and about garments," he explains. Sizolution's first product, a tabletop tool

PHOTO CREDIT: SIZOLUTION

that automatically measures a garment when placed on a table, helps retailers understand more about the garments they sell from multiple brands. Still in use by multi-brand retailers, Sizolution leveraged this tabletop technology to create the mobile app.

But consumers don't have to download Sizolution's app. Brands can implement a Sizolution widget that gathers data through a consumer questionnaire, and then perform size recommendations based on product data.

"Taking information from an image is hard. Shades of color, lighting, and shape affect the result, and there are even different data points from different races," explains Filippo Calenti, CEO and founder of Measmerize, which started in 2017 and went live with luxury brands Zenga and Moncler last year.
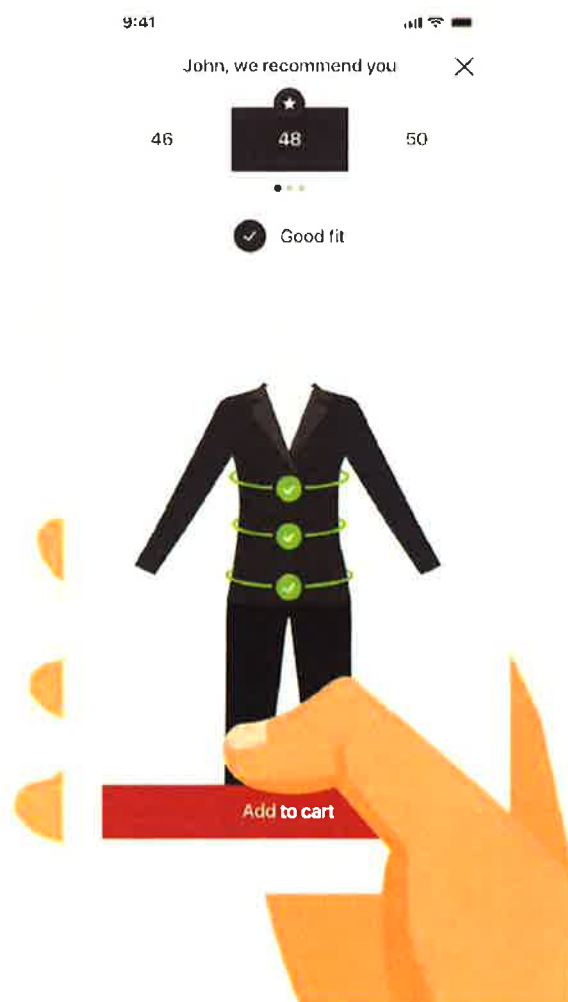
"Fit recommendation engines that only look at customer sales and returns require a lot of product history to be successful. Luxury brands don't produce those quantities to ensure accurate recommendations," Calenti adds.

Aimed at the luxury market, Measmerize recommends sizes based on brand product measurements as well as the height, weight, age, and body shape data consumers enter via a questionnaire on a brand's website.

"We often don't remember our measurements, and as consumers we don't understand product specifications versus how we like garments to fit and feel," he says. "Is an extra inch in the shoulders enough, or is it too much?"

"Fit technology must be accurate, easy, and work on mobile devices because we are often shopping on the
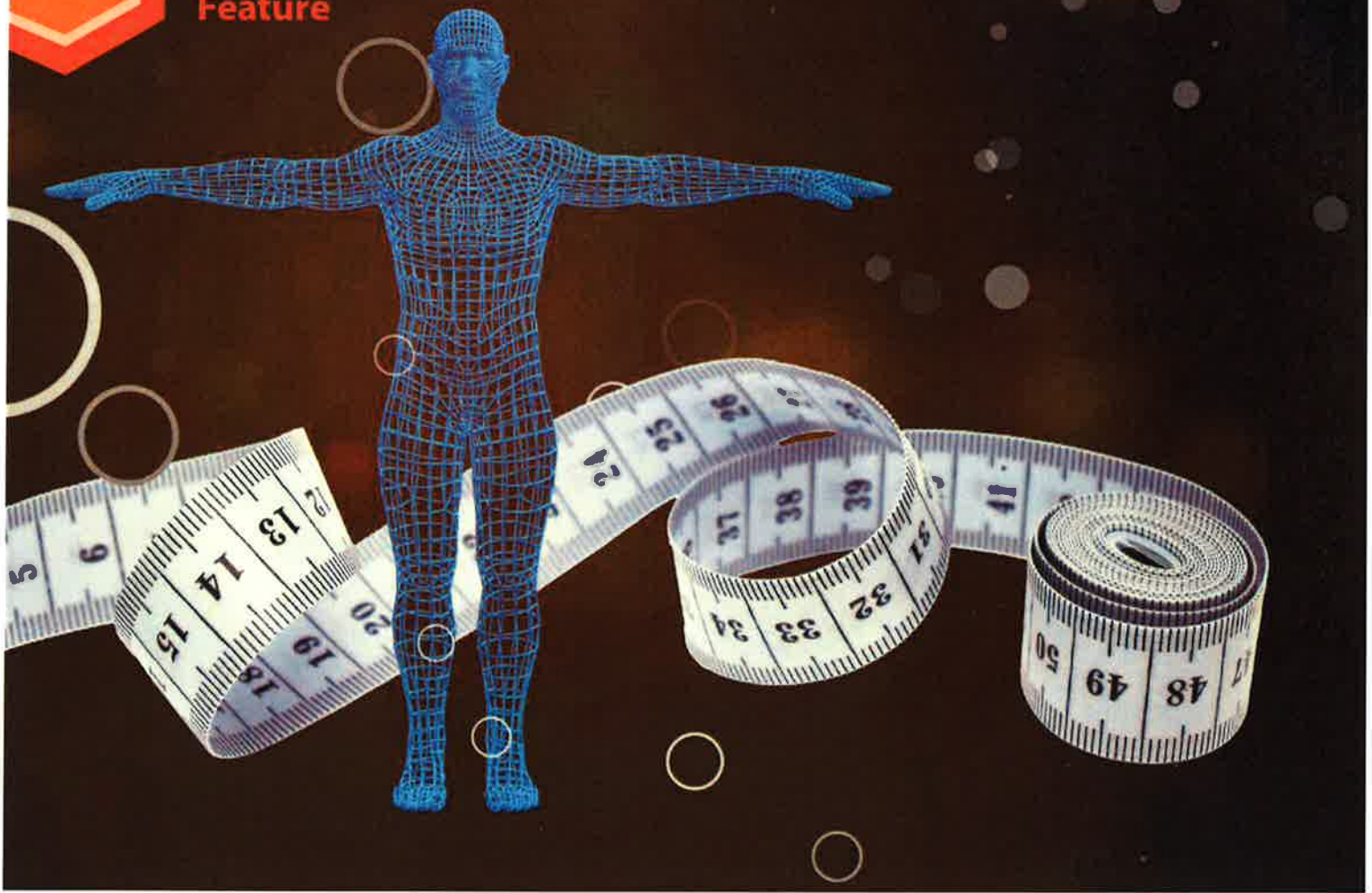
go. Measmerize results are accurate within 2 cm. We are for ready-to-wear brands, not made-to-measure."

Formcut, on the other hand, was created for made-to-measure. Leveraging their Size Stream Body scanning technology—developed for and still in use by the medical and fitness industry in their MeThreeSixty app—Formcut enables manufacturing on demand.

"Body scanning is a digital tape measure," explains Andre D'Elia, chief product officer at Size Stream. "We know how to use this data to then create product." D'Elia hails from Italy, where his family ran an apparel factory. He also ran made-to-measure at Brooks Brothers.

"Consumers are most comfortable being scanned at home, and with the advances of smartphone cameras, we no longer require them to come into the store," he says.

"It's not enough to be a 34 waist," D'Elia says. "Is

the weight distributed more in the front or in the back?" he asked. "Our proprietary fit technology and 3D manufacturing technology allow us to make a pattern specifically for you from the output of the scanner."

Since 2014, Bodi.Me has also aimed to enable brands to manufacture to order. Leveraging body scanning data sets like Human Solutions as well as their own experience with various body scanners, their Size.Me e-commerce plug-in combines product specification information with consumer body shape data. The goal is to reduce inventory as well as returns shipping to lower the fashion industry's e-commerce carbon footprint.

"We've been successful in the uniform trade where sizing is crucial," explains Lora Mazzoni, CEO and co-founder of Bodi.Me. Typically, a uniform supplier needs to offer from 15 to 35 sizes per style, she says. "Our proprietary deep-learning algorithm leverages this experience and we now offer our application
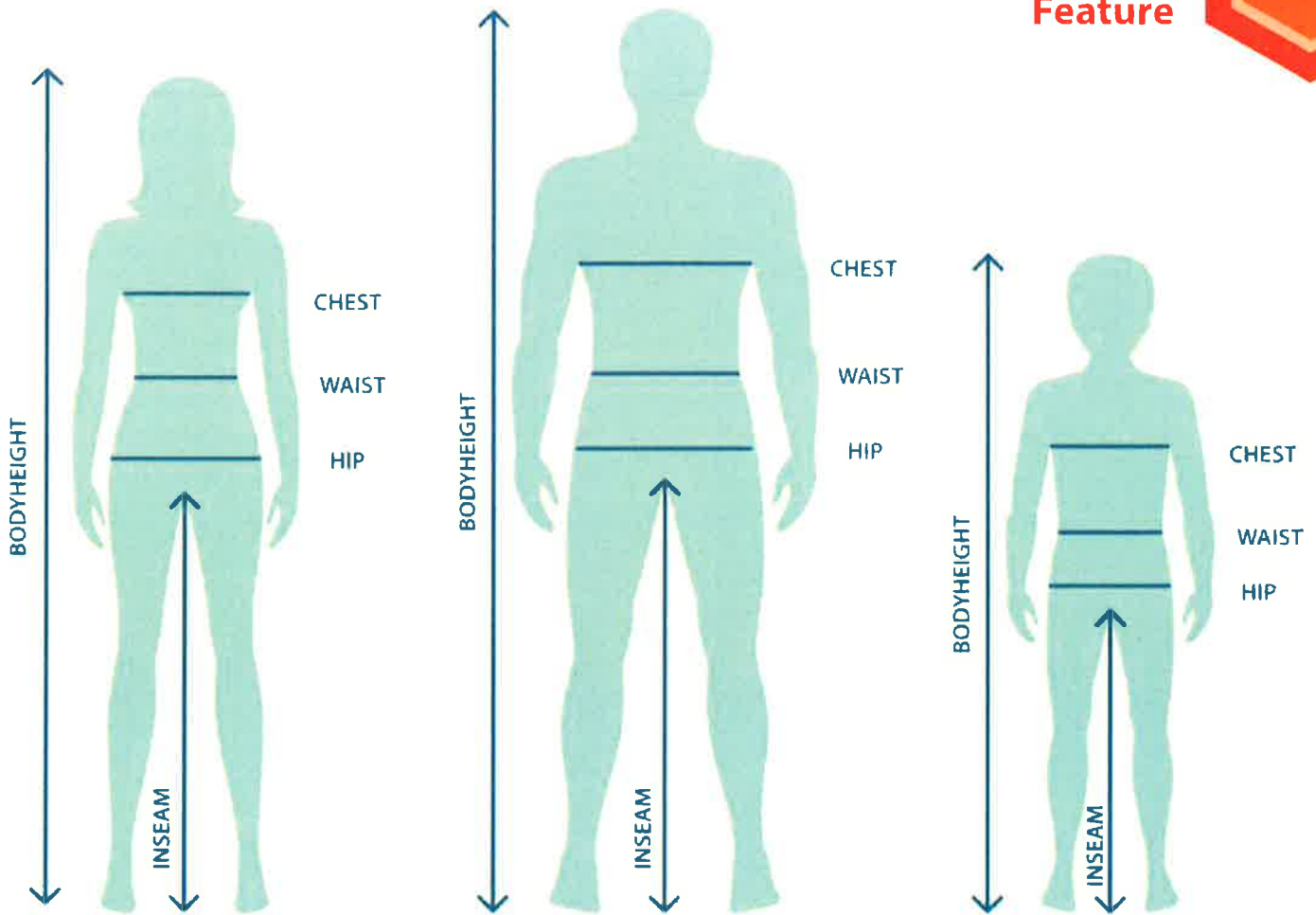
to fashion brands." Customer data is entered via a simple questionnaire.

Fixing the Basics

"It's so important to think about the user experience in any fit solution," says Jessica Graves, founder and chief data officer of Sefleuria, a data science consultancy firm that helps companies adopt decision support systems to scale. Graves has worked with Ralph Lauren and Burberry, as well as Alvanon, the technology and dress form manufacturer that helps apparel brands and retailers on fit and sizing strategies.

According to Graves, before embarking on fit recommendation technology, fixing the basics is a first step for many e-commerce players. "Providing simple images of products and listing clear measurements on garments are extremely useful low tech ways brands can improve sales and lower returns," she says. "Static size charts that don't apply to all styles are not helpful."

"While the number of consumers using fit recommendation solutions is well over the million mark, when you compare that number to the total number of e-commerce shoppers, we are still in an early adoption phase," she adds. "Therefore, any additional steps that require users to enter extra data must be easy and frictionless to be effective. Otherwise users will abandon the process—or even the sale."

Craig Crawford is a 2019 Tabbie award winning author and founderprenuer of Crawford IT, (**https://crawfordit.com**) a London-based consulting firm specializing in the digital transformation of brands; Twitter @**getamobilelife**; +44 07834584785