

The future of technology in retail report

Digital dictates decisions around the future of retail.

Executive summary

Research from Ensono Digital and Auth0, across tech decision makers and consumers has emphasised the need for tech disruption in the future of retail—not just to keep ahead of the innovation curve, but to ensure business value and longevity in the sector.

The fact that businesses as a whole have been catapulted into new territory over the past 12–18 months is no secret. No sector was left unscathed or undisrupted by the impacts of the global pandemic. And, when combined with a host of geopolitical, environmental, logistical and economic sea changes too, the acceleration of trends has been even more pronounced.

For retail, this acceleration was simply unmanageable at times. We all knew the industry was heading in a direction of ecommerce; of more ethical value chains; of greener fulfilment; of personalisation. But to be propelled, overnight, into needing to optimise these factors yesterday, was too much for some to handle.

The significance of data, the battle between on and offline, the strive towards environmental social governance, meeting shoppers' convenience demands, and the boardroom battle to ensure strategic success have all been brought into sharper focus as a result.

And it's here, under these banners, that Ensono Digital and Auth0 look to uncover the pressure points, the demands being projected by consumers, and the investments that can help retailers keep ahead of the curve.

A survey of both 500 technology decision makers in retail, as well as just over 2000 nationally representative consumers, has shown that, among younger demographics in particular, the appetite for change has accelerated in tandem with the COVID-19 catalyst.

Progress is no longer phased or competition-induced, but immediate and almost entirely customer-driven; making the need for quick and effective decisions around tech investment all the more critical.



To this end, and through this study, we have found that:

46% of 16–24 year old consumers would be happy to part with personal data if a retailer could then develop new offerings off the back of it. If businesses can prove to be trusted, transparent and secure with consumer data, the future shopper is willing to trade in their personal information and dedicate longer-term loyalty to brands.

84% of the same demographic find either one or several new technologies useful in an online retail setting. Consumers are aware that digital tools are needed to not only elevate ecommerce portals, but to also bring the best of offline to an online setting. The demand for a true omnichannel offering is growing.

39% of the overall consumers surveyed find packaging and manufacturing sustainability to be important. Fulfilment has been pushed up the priority list over the past 18 months, tying in with a general rise in vigilance around sustainability. Retailers can't just focus on speed of delivery—they also need to refine the way items are packaged and delivered.

In response, TDMs (tech decision makers) are experiencing both opportunity and strain, revealing that:

53% of TDMs are looking to leverage online insights as a priority, to improve their stores. The reimagining of brick and mortar has begun, with innovation at its core.

36% are trying to create more meaningful offline and online experiences, such as making it quicker or convenient ways to find products in-store. This aforementioned use of tech is being channelled towards creating the same level of immediacy and variety, offline, as consumers enjoy online.

88% of tech decisions are now part and parcel with environmental social governance measurement. There is a recognition that business value and differentiation go beyond prices and choice. Being able to show that you are running your business ethically and sustainably is a differentiator that retailers are now addressing.

74% feel that the tech function is now closer to the overall business process in the past 12–18 months. Whether those closer voices are being listened to yet is up for debate, but COVID-19 has made business and tech disciplines a tighter unit. The hope now is that the C-Suite recognises this stronger connection between digital investment and business value.

Reflecting on that 'opportunity-strain' pendulum, it is likely to be the decisions around tech investment that dictate which way retailers' fortunes will swing. The future has come about quicker than expected, and decision makers need a digitised hand to catch up, and to get ahead.

Retail is the new rocket science

While many legacy retailers are currently still feeling the pain of disruption, there are already clear winners on the other side, from whom we can all take inspiration.

Kate Ancketill, CEO of retail innovation consultancy, [GDR](#) surmises the state of play in a reimagined sector, and the strategies currently being adopted to keep up.

“It’s the best of times and the worst of times to be a retailer, depending on your appetite for change, and where you’re at on your omnichannel journey. Retail was already at an inflection point coming into the new decade as the legacy model of the past, built around the physical store as the primary channel with ecommerce as a secondary support, reversed polarity. Chinese consumers now buy more online than they do in shops¹ for the first time ever, and that’s not expected to reverse post-pandemic. Now that mobile comes first, the store becomes an extension of the super-computers we carry in our pockets.

Sadly, we have all watched what felt like the slow car crash of long-lived retail brands going out of business in recent years and, for those unprepared for the next-generation omnichannel era, there will no doubt be further shrinkage of physical space to reflect falling footfall (which was already advanced pre-COVID-19), the inexorable shift to ecommerce, and the unsustainable burden of asymmetric taxation. While many legacy retailers are currently still feeling the pain of disruption, there are already clear winners on the other side, from whom we can all take inspiration.

The increased focus on sustainability has further complicated the retail landscape, with the growing realisation that delivery of individual items to individual homes, at speed, has the potential to become an environmental disaster. Solutions are out there: batch deliveries, e-bikes, circular systems, bio-plastics and more.

In the new model, stores serve new purposes. They are micro-local logistics hubs, optimised click and collect points, multistorey vending machines, dark drive-throughs. Stores will also be education, inspiration, brand immersion and community spaces boosted by the livestream, the concierge, the endless aisle, super-fast home delivery and a mobile-first mindset. As transaction has moved onto the smartphone, ‘Just Walk Out’ retail is primed to explode wherever convenience and speed is key. The concept of the flagship store is a robust one, delivering the good kind of friction that slows shoppers down, engages them emotionally and viscerally, and delivers unique experiences only possible in real life.



¹ Forbes. *China Online Vs. Offline*

At the same time, e-commerce retailers are using technology to remove some of the guesswork that leads to inefficiencies, with augmented reality try-on and livestream conversations with staff proliferating. Retailers are also starting to get to grips with how they should be present on the metaverse, through online games and worlds like Decentraland, where avatars buy and sell digital assets in the form of NFTs (Non Fungible Tokens, or unique proof of authenticity and ownership, based on the blockchain).

Retail itself is relatively simple. But applying best retail practice at the current scale required is the new rocket science. It's not surprising that almost everyone has a lot of work to do to keep up.

Both online and offline, personalisation is more often than not, the holy grail towards which all retail is heading; with the pairing of data, AI and emerging technologies helping to create unique products, discounts and experiences for each individual shopper. Technologies like biometrics and computer vision are making logistics and store operations faster and more seamless, genuinely freeing up store associates to do the things technology can't. In the next-gen omnichannel world the best users of data are likely to win."



The fast eat the big, and every business will have to achieve a net-zero carbon footprint by yesterday.

2

Data holds the key to successful customer relationships in the future

When customers have so much choice and variety at their fingertips, gaining and retaining their loyalty should be the ultimate goal. The more people you achieve this with, the richer your more general insights will be, when trying to unravel the demands of the future shopper.

The good news is, that ‘the future shopper’, at first glance, is more than happy to pull their weight as part of this dynamic.

Almost half (46 percent) of 16–24 year old consumers revealed through our study that they would be happy to part with more of their personal data, as long as it led to new offerings from the retailer.

Their priority ratio is tilting in favour of service provision, over data protection and management, at present. And even among those who are slightly less convinced right now, there is still a huge opportunity to win them over.

More than one quarter (27 percent) of consumers overall are considered to be ‘floating voters’ as they are undecided on sharing more data in this current climate. These are the shoppers who may prize security and management of their data more than younger digital natives. But the lure of an improved service is still there, if retailers can prove that both service and security responsibilities are being taken seriously.

46%

of 16–24 year olds happy to part with personal data

27%

are considered to be “floating voters”

If this latter segment of the consumer population can be won over as well, data-conscious retailers can emerge from the pandemic with healthier customer relationships than ever before. To be trusted to not only provide a good product or service, but with people’s personal information, is an impactful responsibility which takes the dynamic to a deeper place than was possible via legacy shopping methods.

Positively, retailers seem to be aware of this balancing act, the responsibility and the opportunity. Data insights proved to be a foremost priority for TDMs when deliberating customer retention strategies. Ideas around improving stores via online insights (53 percent), getting to know customers and keeping them loyal (48 percent) and generating more tailored recommendation and personalisation communications as a result (47 percent) are all listed among the top priorities from a customer retention strategy standpoint.

53%

prioritise ideas around improving stores via online insights

48%

prioritise getting to know customers in a personable way

47%

prioritise generating more tailored recommendations

This points to a future where customer retention and loyalty may be more costly and challenging to attain; but, so much more valuable once secured.

Kate of GDR affirms: “Used correctly, data is the most powerful tool in a retailer’s arsenal, empowering them to make informed decisions about how best to serve their customer base, both as a whole and individually. However, without the proper processes in place, data can be an expensive and confusing waste of time and resources.

“Consumers are naturally cautious about handing over their information, and have never been more aware of the value of their personal data. Retailers need to be ultra-transparent to show consumers that their data will be stored safely, and there needs to be a clear value exchange that demonstrates how the data will be used to offer each customer an elevated, personalised experience.”





Used correctly, data is the most powerful tool in a retailer's arsenal

3

Colliding the two worlds of online and brick and mortar

How can physical stores bring the same variety, immediacy and interactivity that online does? And how can ecommerce portals bring the physical experience of customer service, and tangible trialling of products that you would get in store?

Promisingly, retailers seem to realise that the answer to both revolves around the role of digital—not to solely optimise each, individually; but to create a reimagined hybrid, omnichannel relationship between on and offline.

88 percent of TDMs surveyed are seeing the potential of new technologies such as artificial intelligence (AI), augmented reality (AR) and virtual reality (VR) as ways to increase their advantage over competitors, online. Similarly, investments are also being pointed in the direction of strategies that will translate the best of online, to in-store. For example, 36 percent of retailers are currently aiming to invest in technologies that ensure it is faster to find products in store; just as it would be online. The ability to provide real-time stock and inventory information to aid the fulfilment experience (35 percent) is also gaining traction.

By creating synergies between the two realms, and introducing tools that focus on the brand as one whole, connected, ecosystem, is much more conducive to establishing familiarity and ultimate loyalty.

Again, retailers can do a lot worse than to look towards younger contingents as a way to gauge that potential, future loyalty. Among the 16–24 demographic of consumers surveyed, 84 percent confirmed that they would find at least one, if not several, of these new and emerging technologies useful as part of their shopping experiences. Dissecting this general mood further, the idea of replicating in-store experiences, online, specifically comes to light. Receiving advice around product sizes (19 percent) and even receiving tailored recommendations (19 percent) will help to bring the art of personalisation to an initially impersonal setting.

88% of TDMs see potential of new technologies like AR and VR

36% of retailers are aiming to invest in technologies

35% have ability to provide real-time stock information

84% of 18–24 year olds would find emerging technologies useful

19% would like to receive advice around product sizes

19% would like to receive tailored recommendations

More generally, human interactions are still very much paramount, as 38 percent of all respondents believe human interaction is paramount, and 44 percent of those in the 55+ age range selecting this as a reason why they would not find new technologies useful. If anything, this emphasises the need for a stronger sharing and crossover of advantages. It's not as cut and dried to say online is set to rule the roost. The hunger for the high street—it's social and personable attributes—still remains; also evidenced by 50 percent of the older audience listing the ability to try on products for those who prefer to shop with a retailer physically, for those retailers that prize offline offerings still.

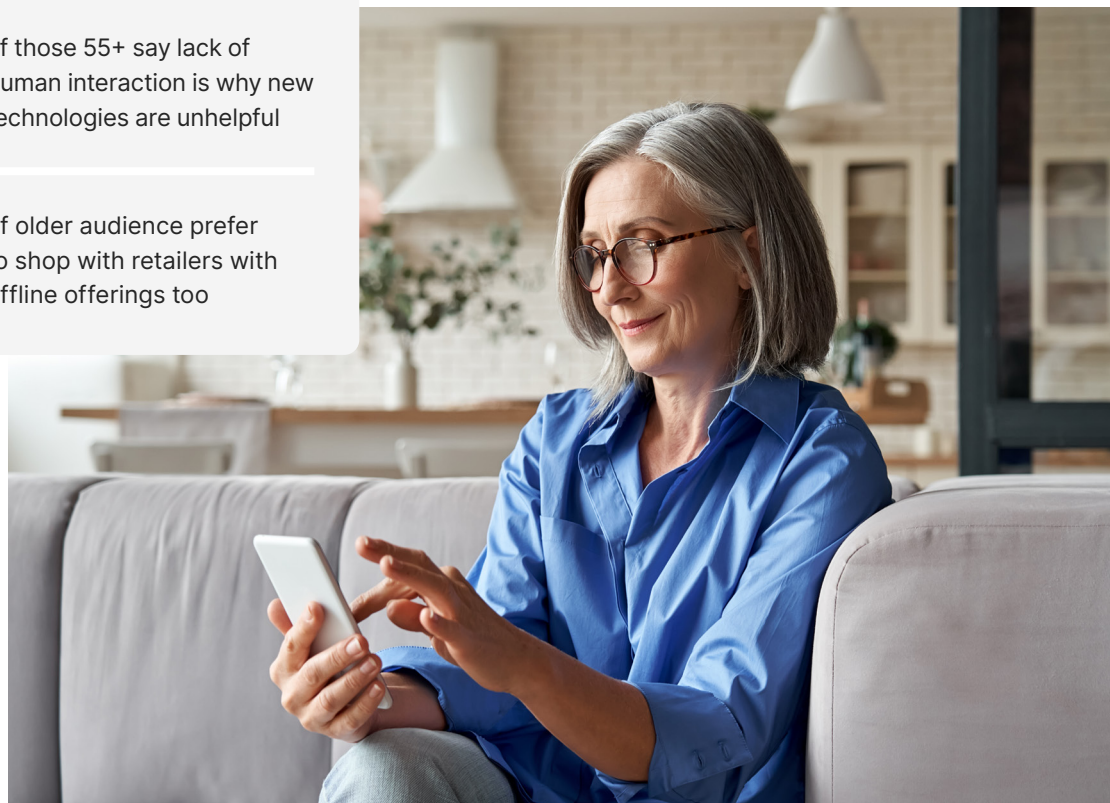
Kate notes: "Omnichannel retailers should give consumers the tools to shop wherever and whenever they want. Technology can remove the pain-points associated with physical and online retail, and bring the best of both worlds together. The challenge for retailers is to create a consistent, fun and rewarding experience that unifies consumers' engagement across all potential touchpoints."

The high street and its offering is still very much required and sought after. But there is a reimagining of what that high street experience should now offer, and how the two modes should intertwine to provide the ultimate customer experience.

38% of all respondents believe human interaction is paramount

44% of those 55+ say lack of human interaction is why new technologies are unhelpful

50% of older audience prefer to shop with retailers with offline offerings too



4

Using COVID-19 as a catalyst towards the ESG dream

There is something of a dichotomy playing out when it comes to the role of sustainability and retailers championing of environmental social governance (ESG).

The intention is there. Years of protester-driven anger towards certain brands has transcended into a more concerted and collective feeling among consumers that being green is a differentiator. It is heartening and encouraging, therefore, that 88 percent of TDMs surveyed now have an ESG measurement embedded into their role objectives, to meet this demand.

Overall, the penny has dropped that, for many customers, sustainability is a reason why they will or won't buy from a retailer. Very few brands are still ignoring the cries to ensure products and materials are made or sourced ethically; to be transparent across their supply chains; to better audit the types of partnerships they enter into; and especially to improve the way that orders are fulfilled and items are distributed.

However, the dichotomy comes from the speed in which this general realisation has traditionally yielded results and progress. For a sector that doesn't have the best reputation from an ESG perspective, overhauling value chains and legacy models was never going to be easy. It was always perceived to need time and a phased approach.

88%

of TDMs have an ESG measurement embedded into their role objectives

COVID-19 may have changed all that

Our results suggest the pandemic has served as a catalyst in converting intention into investment.

Recurring areas of focus include targeting investments around being more responsible with packaging, which is consistent across 39 percent of consumers surveyed. Additionally, efforts and technologies that help to reduce carbon footprints through deliveries came a close second (36 percent) among respondents.

In optimising and fine-tuning these elements now, retailers will be getting ahead of the game, too. Across all those surveyed, 29 percent confirmed that the technology a retailer uses to help achieve ESG goals is important by encouraging them to show more loyalty to the retailer. This rises to almost 35 percent among the 16–24 audience—another sign that this trend is only going to gain momentum in the years to come.

ESG is no longer a by-product to win brownie points if it's slightly better than someone else's. It's now a core KPI for many consumers, and through this has come a heightened exploration into technologies and innovations that will set retailers apart in this context.

Many people have spoken about the silver linings around the COVID-19 cloud, and sustainability certainly falls within that bracket. During a period in which fulfilment could only be achieved through couriering and delivery, eco considerations have become quite literally part and parcel of a shopper's decision-making process.

Those same shoppers will be keeping an eye out for the technologies being deployed to elevate ESG reputations in the months and years to come.

5

The convenience–value balancing act

No issue reflects the difficulties of the past 18 months better than that of fulfilment. TDMs have earmarked the need to use tech in order to improve and speed up deliveries as their number one challenge.

The challenge comes from a rather unfortunate catch 22: fulfilment networks (47 percent) and customer demand (45 percent) are listed as the top two limitations to introducing these new technologies, or increasing the use of new innovations.

47%

**list fulfilment networks
as top limitation**

45%

**list customer demand
as top limitation**

In essence, retailers know that customers are demanding a more seamless, customisable and usually, quicker delivery service. They also know that to achieve that extra speed, they need to optimise and rethink their fulfilment and supply chain networks. Thirdly, there is an acknowledgement that tech investment and integration is the way to achieve both of these things.

But, with everything else to consider, this vital third strand is being forced into afterthought territory. In the backs of their minds, retailers know that the process needs improving, but do they have the time, the agility and the capital to push through such disruptive digital change to what is often a global value chain?

To really emphasise the scale of the challenge right now, almost half of TDMs currently fear that they'll be unable to ship products post-purchase. While consumers are crying out for even more fulfilment variety, choice, speed and convenience, many retailers are still struggling to fulfil their new order volumes at all.

A sizeable 83% go on to confirm that they expect to struggle from a competition standpoint if they don't overcome this issue.

So, it's a chicken and egg conundrum. Is it better to try and catch up via the processes that are in place now, in the hope it will free up time to integrate new technologies in the future? Or is it preferable to take the hit now, and invest in new technologies that will allow a more sustainable catchup long into the future? The answer, of course, is the latter. Convenience is key, and customers are fickle—it's true. But if you're not preparing for the future of retail, now, then what are you planning for? There may not be a future brand to recover if the right decisions aren't made in the here and now.



Investment into tech is a primary shortfall that can hold a company back from offering more value

41 percent of retailers cite an ability to deliver at speed, and 40 percent note supply chain issues as core challenges associated with deliveries in the new omnichannel environment. Efforts and investment must be targeted towards solutions to these two critical strands, now, so that the same challenges don't become exacerbated even further in the future.

While doing so, it's also important to remember that shoppers can also be forgiving in the long-term, and that they don't solely judge retailers on one area.

As Kate points out: "Consumers value much more than just convenience—they are looking for expertise, unique experiences, fun, belonging, nostalgia, hope, community". Thinking longer-term: "Slowing consumers down for a more considered [overall] shopper journey can be a positive all round."

41%

of retailers cite an ability to deliver at speed as a core challenge

45%

of retailers note supply chain issues as a core challenge



6

Business needs to start listening to tech

Almost three-quarters (74 percent) of TDMs now feel closer to the business they work for, following the past 12–18 months of enforced change brought largely about by the COVID-19 pandemic. While the general upshot of that statistic is positive—it suggests a more connected and united decision-making function—it also shines a light on quite how pressurised that role has been during the period.

Being able to achieve more with less resources and almost no time was (and still remains) an unenviable task. And while they may feel literally closer to the business, that doesn't mean that TDMs are experiencing this in the form of support, or communication, or collaboration. Rather, for 45 percent, they still see internal buy-in as a limitation to increasing use of new and emerging tech. They've been brought closer to the top table, but perhaps only to hear about the pressures, as opposed to influencing meaningful change.

This perceived conflict between tech and business isn't retail specific. Thought leadership has fed off the paradigm where the C-Suite has called upon their digital specialists to move mountains without really providing the business blessing that would allow such a shift to occur. It has yielded a dynamic where the TDM needs to put on more of a business hat themselves, when entering into these dialogues.

74% of TDMs now feel closer to the business they work for

45% of TDMs see internal buy-in as a limitation to progress

45 percent note that investment into tech is a primary shortfall that is holding the company back from offering more value. As such, they should think about how they can utilise their increased importance, or closer positioning, to showcase just how integral tech is from an ultimate business and value point of view.

Over time, and once examples of this extracted value come to fruition, it would be hoped that the business side of the coin looks back at the TDM's workings, to make the connection between the tools being introduced, and the ultimate revenue boosts being enjoyed.

“In the last decade emerging technology like AI, robotics, AR and computer vision have gone from something the marketing department can use to make a splash, to something with game-changing potential for the whole industry.”

Just like sustainability, technology cannot deliver any meaningful results if it is just bolted on to an existing proposition,” Kate points out. “It needs to be one of the central, core elements that retailers' operations are built around.

Any retailer still approaching technology in the same way it did 10 years ago has to consider this a complete organisational failure.”

TDMs' voices around the top table have finally become louder. It's now time to truly listen to what they're saying.

7

The solutions are in the stats

Pulling upon our final section, the gap between tech and business has indeed been shrunk over the past 12–18 months. It’s traditionally been easy for new tools and innovations to get caught up in the hysteria and intrigue around them, to the point where the C-Suite perceive them as fads; or at least struggle to filter the game-changers from the failed investments.

This is why the newly formed connection between business value and digitisation is so critical. COVID-19 has really shone a light on the areas of retail that are in need of innovation—not to make them more modern or trendy; but actually, to just keep up with the market. Instead of seeing the tech first and being unsure where to channel a solution, there is a need to look at the trajectory of the business first and realise where optimisation is needed.

Often, it is all too easy to focus on emerging technology and how it can provide innovation to a sector like retail. But the real battle in retail is often in nailing the basics at scale. Being good at omnichannel is hard and most retailers need to fix this before they invest in technology that is additive to that core.

Through our research, we have seen that:

- Data insights are needed to keep on top of consumer preferences
- Online requires digital aids to make it more personable
- In-store needs to lean on tools to bring the same immediacy and stock visibility as you get with e-commerce
- Environmental goals rely on the efficiency and automation that tech can bring
- Consumer convenience now hinges on retailers optimising their supply chain networks

At every turn, business value is dependent on the technologies that will convert potential chaos into a sense of control. Taking a business-centric view of the omnichannel transition is, therefore, the best place to start.

For those still in any doubt, the solutions are all in the stats—consumers have never been more vigilant to how brands are striving to meet the future of retail. An omnichannel future of retail. To ignore their calls now could be to miss out on this future altogether.



8

It is time to invest in the future



Kate Ancketill

CEO of retail innovation consultancy, GDR

"For the retail industry, and particularly retailers in the UK, the last decade has been a perfect storm with one significant challenge emerging after another. The decline of physical retail, Brexit, the climate crisis, the COVID-19 pandemic and the current logistics struggles have all played their part in shaking the very foundations of the industry.

While the retail landscape of today is significantly different from a decade ago, in the next 5–10 years the rate of change will accelerate to warp speed. Emerging technologies like AR and VR that allow for remote shopping are maturing; as 5G spreads, opening the possibility that the home may very well become the new battleground for retail, as we explore rich retail experiences from our own sofas.

Many smart cities began construction in 2021, and they'll be laboratories for future retail; from drone delivery and in-situ 3D printed micro manufacture, to automated futuristic store concepts like Urbx Market. It's expected that most Chinese cities will be, to some extent, 'smart' by 2035. We tend to find that for retail, where China goes, the rest of the world follows, and these smart cities will generate and be powered by a level of rich, real-time data that will dwarf anything we've ever seen before. Those who own and are able to leverage this data will be the big winners. It is abundantly clear that the retail strategies of the 20th century will not be fit for purpose during this exciting and challenging new age. Instead, retailers need to be prepared to reimagine their operations fundamentally. This could involve following in the footsteps of digitally native vertically integrated

brands who, unencumbered by legacy models, have been partnering with tech startups and hiring and promoting the best brains in AI. Some even question the very principle of continuous growth and aim to become a doughnut brand—one which operates within an outer boundary dictated by the planet's ability to sustain its activity.

The days of PR-focused scattergun, "tech for tech's sake" activations are over. Investment in a targeted and robust, next-generation omnichannel strategy is now mission-critical."

It is abundantly clear that the retail strategies of the 20th century will not be fit for purpose during this exciting and challenging new age. It's time to invest in the future.



Methodology: The survey was carried out by Censuswide on behalf of Ensono Digital and Auth0 with a sample of 500 (18+) Tech Decision Makers at UK retailers with revenue of £100m+ per year, as well as sample of 2,004 general respondents (Nationally Representative, 16+). Censuswide abides by and employs members of the Market Research Society which is based on the ESOMAR principles.

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