The Tech Effect:
How the Digital Age Is Changing Investing
Humans have their priorities. After family and health, I think most of us can agree that financial stability is a close third. I think we can also agree that it’s among the most mystifying. At the end of the day people just want to know if they’re going to be OK, but for many even the simplest assessments can be incredibly difficult. To their advantage, technology is changing that.

We’ve reached an intersection of an amazing confluence of technologies that have the power to significantly remove the friction and make personal finance and investing easier. Combining things like artificial intelligence (AI), machine learning, and voice user interface (VUI), for example, we can create new solutions that remove a lot of unnecessary pain points. Making it super-easy for people to get answers to complex investing questions (like asking Alexa) is just one example of the impact that innovation can have on a person’s time and ability to plan for a comfortable future.

That’s not to say there aren’t drawbacks—with every new piece of technology there’s potential for even more exposure of personal information. But it’s clear that consumers will take risks willingly if the experience adds value and saves them time. TD Ameritrade has created an ecosystem that’s ready and able to apply emerging technologies in varying ways to continue to simplify and demystify investing. To be sure, the world has come to expect it. We have to meet them.
Technology is fundamentally changing our relationship with money

Things change. That’s a fact of life. And it’s especially true for technology. How we get around the city, how we entertain ourselves, and even something as routine as grocery shopping are all changing faster than ever. New technology is also changing our relationship with money.

In our study of 1,000 American investors, a fifth say technology’s greatest impact on everyday life has been on how they manage money (21%)—almost as many as the one-quarter who say it’s been on how they shop (26%) and far ahead of those who say it’s been on how they work (15%).
Technology has the greatest impact on how we spend and manage money.

Today, technology is closely woven into most investors’ financial lives. Nearly 9 in 10 (88%) say that technology is either a part of their finances (58%) or critical to their finances (30%). And the more investable assets they have, the more likely they are to say that technology is critical to managing their finances: 38% of those with $250,000 or more versus 25% of those with under $100,000.
Technology is woven into the financial lives of most investors

Those with more assets are more likely to include technology in their finances.

<table>
<thead>
<tr>
<th>Best describes how you manage finances</th>
<th>Technology is part of my finances: Some of my accounts or information is online and sometimes I prefer to talk to real people</th>
<th>Technology is critical to my finances: All my information and money is digital, automated, and managed with technology when possible</th>
<th>Technology is not a part of my finances: I want to deal with real people, receive statements in the mail, and deal with the concrete and tangible aspects of my money</th>
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<tr>
<td>58%</td>
<td><strong>Technology is part of my finances:</strong> Some of my accounts or information is online and sometimes I prefer to talk to real people</td>
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<td>30%</td>
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38% of those with $250K+ in investable assets say it’s critical vs. 25% with under $100K.

Q5: Which best describes how you manage your finances? Based to Total: (N=1,000)

Consumers compare their experience with financial institutions to their most positive experiences in other industries. That means investors are increasingly tech-forward and are moving toward financial solutions that feel personal, empowering, immediate, and simple.
We’re in a Digital 2.0 era where people expect access to information and support anytime and anywhere through any device. If you want a tax statement in the middle of the night, for example, you’ll expect to be able to ask Alexa to get that for you.

— Vijay Sankaran
Chief Information Officer
Investors: If technology makes my life easier, I want it

Overall, investors appreciate and want technology in their lives. Almost 9 out of 10 say that technology makes some of their favorite activities possible (86%). And the same number say that if technology can make their lives easier, they want it (86%). Further, 3 in 4 say they are excited to try new technologies (74%), and half consider themselves early adopters (48%).
Investors enjoy the positives of technology being in their everyday lives

Almost half of investors consider themselves early adopters.

<table>
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<th>Describes me best compared to a year ago</th>
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<tr>
<td><strong>Technology makes some of my favorite activities possible</strong></td>
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<tr>
<td>86%</td>
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<tr>
<td><strong>Technology has made some of my favorite activities harder</strong></td>
</tr>
<tr>
<td><strong>If technology can make my life easier, I want it</strong></td>
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<tr>
<td>86%</td>
</tr>
<tr>
<td><strong>Technology rarely makes my life easier and I don’t want it</strong></td>
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<tr>
<td><strong>I am excited to try new technologies</strong></td>
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<tr>
<td>74%</td>
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<tr>
<td><strong>I am exhausted trying to keep up with new technologies</strong></td>
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<tr>
<td><strong>Technology helps me keep my information secure</strong></td>
</tr>
<tr>
<td>57%</td>
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<tr>
<td><strong>Technology makes it harder to keep my information secure</strong></td>
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<tr>
<td><strong>I like new technology and am an early adopter</strong></td>
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<tr>
<td>48%</td>
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<td><strong>I want to see others try new technology before I will consider it</strong></td>
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Q2: Please select which best describes you. Based to Total: (N=1,000)

The underlying force of technology in our daily lives presents an opportunity for a more consolidated, personalized financial experience. “Finances are integrated into everything we do,” notes Vijay Sankaran, Chief Information Officer. “I think people want to see things more holistically and construct a plan for their lives. I think people want a financial navigation system that guides them through every phase of their lifetime.”

It’s hard to say how—or if—market conditions will affect investors’ enthusiasm for technology-based solutions. Just as in the rest of their lives, it’s unlikely that technology’s role in managing their finances will wane.
As people use technology more and more in their day-to-day lives, they expect the same level of seamless integration and empowerment from their financial services relationship that they get in other aspects of their lives.

— Tom Nally  
President, TD Ameritrade Institutional
Investors look to tech-driven recommendations

There will be a major shift in what investors expect from, and how they interact with, their finances because of how technology is being ingrained into everyday life. Consumers are comfortable with experiences like Amazon and Netflix using artificial intelligence (AI) and machine learning to offer suggestions based on their past purchases and viewing habits. It’s actually seen as a relatively good thing. In turn, most investors say they’re completely fine with technology using previous behaviors and information about them to make recommendations (79%). They also find the recommendations based on their past behaviors useful (with 58% saying usually useful and 34% saying occasionally useful).
Most investors are fine with technology using their past behaviors to make recommendations

Recommendations based on analyzing past behaviors are usually useful.

Investors can expect to see even greater benefits of data and analytics in their financial experiences soon. “Tech capabilities are catching up to aspirations,” says Tom Nally, President of TD Ameritrade Institutional. He predicts, “Investors will see a far more customized end-client experience over the next five years than anything we’ve seen in the past.”

Given the acceptance and eagerness about data-driven recommendations and strategies, it’s easy to imagine investors looking toward emerging technologies like AI and machine learning for financial management. As these technologies continue to advance and be refined, they’ll play a key role in informing investing decisions and strategies.
The power of AI and machine learning can enable clients to access information with speed. But it also layers in relevant context to make sense of the information, so they can make more confident decisions. Applying these technologies is … going to enhance both client self-service as well as how advisors support their clients.

— Vijay Sankaran
Chief Information Officer
Human vs. Computer:
Investors give the edge to computers in a number of areas

Do investors prefer dealing with computers or humans? It depends. Investors’ increasing comfort with technology means they’re starting to prefer digital solutions for some things. But when they have concerns they still turn to humans.
Most investors prefer a computer's ability to use all of their data to make the best recommendations. They want greater integration and are open to companies using their information to develop unique strategies. They also believe computers do a better job at providing quick, simple, tailored analyses, optimizing returns and minimizing taxes, and customizing portfolios with regular updates.

But when investors have questions or investment concerns, more than three-fourths prefer talking to a person. They feel, in those cases, humans can provide a better investment experience. “In a steady bull market investors may feel more comfortable relying solely on technology, but when volatility strikes or the market dips and questions become more complex, people like to know there is a person to turn to,” says Peter deSilva, President of Retail.
The future belongs to investment firms that marry empathy and innovation. When it comes to something as personal as money, it’s important to complement technology at the right time and in the right way for the right purpose with human interaction. High tech, right touch is the construct of the future.

— Peter deSilva
President, Retail
In general, investors recognize the convenience and benefits of technology in their lives. They say the strongest points of a technology-based solution would be freeing up time, having more control over their accounts, and greater predictability.
Technology-based solutions free up time while providing control, predictability, and reliability

Weaknesses of technology-based solutions are cited by less than a third of investors.

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<tr>
<th>Strength vs. Weakness</th>
<th>Strength</th>
<th>Weakness</th>
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<tbody>
<tr>
<td>Free up time I can spend elsewhere</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>Having control over my account</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Greater predictability because it’s technology-based</td>
<td>72%</td>
<td>28%</td>
</tr>
<tr>
<td>Reliability</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>Ability to address market volatility</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>Ability to provide investment management personalized for me</td>
<td>68%</td>
<td>32%</td>
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Q14: Which of the following areas do you believe would be a strength or a weakness of a technology-based solution to manage your finances?
Based to Total: (N=1,000)
Technology is fundamentally changing consumer expectations and behaviors. It’s incumbent on us as an industry to tap into new technologies like AI to simplify investing. We need to meet consumers where they are and engage with them on their terms. The speed at which clients expect the right information will only accelerate. We have to build for that today.

— Sunayna Tuteja
   Head of Strategic Partnerships and Emerging Technology
Despite bullishness on emerging tech, investors are conflicted on crypto

Despite a tech-forward attitude, investors are still of two minds when it comes to bitcoin and other cryptocurrencies. They’re evenly split on whether there is still a big opportunity to be had investing in bitcoin (50%) or if they feel like they “missed out” by not investing earlier (50%). They’re also conflicted about cryptocurrency’s relevance. Fifty-one percent (51%) believe that cryptocurrencies are a fad and won’t be relevant in the future, while forty-nine percent (49%) say they will play an important role in the future of finances.

The split could be in part due to the general confusion around the topic, according to Steve Quirk, EVP of Trading and Education. “People sometimes confuse cryptocurrencies and digital ledgers. There’s no question that digital ledger technologies like blockchain will be a meaningful component of the future of finances and probably a lot of other industries. Cryptocurrencies, on the other hand, are a different story. Will one survive and be a method for people to transact? Probably, but no one really knows which one it will be. Bitcoin could be the Myspace of cryptos—it’s just too soon to say.”

Strong market conditions also may affect investors’ interest. At the time of this study, half of investors said that because of current strong market performance, they’re more interested in nontraditional investments like cryptocurrencies (51%).
The bitcoin buzz isn’t about the cryptocurrency itself—it’s the intersection of technology and investing that people find fascinating. Cryptocurrencies like bitcoin represent a nontraditional approach to money and Wall Street, which appeals to young people. People think millennials who are interested in investing in cryptocurrencies don’t understand the risk they’re taking. I think they do understand the risk and are willing to take it in order to express an opinion or invest in progressivism.

— Steve Quirk
Executive Vice President, Trading and Education
Technology is making finances simpler, but it’s still not simple enough

Compared to three years ago, almost half of investors say technology has made managing their finances simpler (46%). Interestingly, millennial investors are more likely than any other generational cohort to say that technology has made managing finances more complex (20% of millennials vs. 14% of Generation X and 14% of baby boomers).
Technology is simplifying financial management for nearly half of investors.

Managing Finances: Technology’s impact compared to 3 years ago is:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>46%</td>
<td>Simpler</td>
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<tr>
<td>38%</td>
<td>The same</td>
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<tr>
<td>16%</td>
<td>More complex</td>
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Q6: Compared to 3 years ago, how has technology impacted how you feel about managing your finances? Based to Total: (N=1,000)

The success in making finances simpler for investors has raised their expectations. “I think that because we’ve enabled transparency, accessibility, and self-service, the need for technology to be reliable, available all the time, and absolutely 100% accurate is essential,” says Vijay Sankaran, Chief Information Officer.
We all have app overload. Right now there are so many apps, and they’re very purpose-centric. Individual apps to individual things. I think when the right holistic app gets delivered for financial investment, then millennials will become rapid adopters, in a heartbeat.

— Vijay Sankaran
Chief Information Officer
Seeking a holistic and integrated experience

Across generations of investors we see a desire for greater integration and simplicity. Most investors say they would invest using a technology-based solution if it provided tailored investing advice (90%). They also would use it if all information were centralized and accessible (52%), and if it provided a customized quick and simple analysis (44%).
Centralized, accessible platform has the greatest appeal for a technology-based solution

Most would invest on a technology-based solution if tailored investing advice were included.

The demand for simplicity will only increase as experiences across different industries merge. “If consumers in Asia can go to WeChat, for example, and do everything from one platform seamlessly, you have to start thinking about that trend more broadly,” said Steve Quirk, Executive Vice President, Trading and Education. “If consumers begin to expect to interact with every company, side-by-side on one platform, the financial industry has to deliver an experience that is just as good as or better than every other consumer-facing industry. It also means those experiences never sleep. They’re 24/7. In the process of evaluating which business to work with, consumers will consider availability—can I do anything I want anytime I want? We have to deliver that.”
Simplicity is expected

Investors want more simplicity throughout the investing experience. When asked, they say they would most like to see greater simplicity around the investing process (42%), learning about investing (35%), investing in general (11%), and getting advice (6%).

Investors wish that managing finances on their smartphone was as easy as shopping online (44%) and getting directions (38%).
Online retailers have hit on something that really resonates with consumers. They’ve figured out how to present their products in a way that clearly shows what you can expect and gives you an opportunity to essentially try before you commit. The end-to-end experience from research to purchase to return is super simple.

— John Hart
Head of TD Ameritrade Start-Up Studio
Investors wish managing their finances on the smartphone was as easy as shopping online.

In the investing space, however, everything is a bit more complex because you’re dealing with something long-term and complicated—your financial future. But that doesn’t mean it has to feel complicated. “Simple doesn’t mean less information. After all, making an investment decision requires more research than buying a shirt or shoes you can easily return. But simple does mean providing the right information—and the right amount of information—to make an educated decision,” said John Hart, Head of TD Ameritrade Start-Up Studio.

Q18: Please complete the following sentence. I wish managing my finances on my smartphone were as easy as __________ on my phone.

Based to Total: (N=1,000)

- Shopping online: 44%
- Getting directions: 38%
- Finding something to watch: 18%
By leveraging technology to break down traditional barriers and provide consumers with relevant education and engaging experiences, we can empower more consumers to take charge of their financial futures. Our thesis is if we can start to break down the barriers around investing and take away the jargon, we can engage more investors with the capital markets.

— Sunayna Tuteja  
  Head of Strategic Partnerships and Emerging Technology
Conclusion

Investor enthusiasm for technology shows no signs of slowing down. As technology improves, so will investors’ expectations about how it can help improve their investing performance and experience.

The value in these innovations will be lost for many investors if financial institutions aren’t able to deliver on the desire for greater simplicity. Investors will look to integrated tools that provide a comprehensive view of their entire financial situation, and minimize the number of separate touchpoints and apps they need to accomplish their goals.

Investors already see the value and benefits of the hybrid model, combining human expertise with machine learning and artificial intelligence. They believe these technologies will help provide the simplicity they desire, and the analysis they need, and help them to optimize their returns.

They see the benefits of these technologies in their everyday life, and are eager to adopt them in their financial lives.
We really look at technology as the great enabler, and I think clients—both advisors and retail—today expect a level of transparency, a level of access, a level of ease, and a level of empowerment that we’ve never seen before.

— Tom Nally
President, TD Ameritrade Institutional
About the Study

The TD Ameritrade Financial Innovation & Technology Survey was conducted by Logica Research and designed to understand how technology impacts the lives of investors and their desire for future innovations. The study was conducted online among 1,000 U.S. investors between the ages of 18 and 70 with over $10,000 in investable assets. The survey was fielded between January 16 and 25, 2018. The sample was balanced on age, gender, ethnicity, and region.

About TD Ameritrade

TD Ameritrade provides investing services and education to more than 11 million client accounts totaling $1.2 trillion in assets, and custodial services to more than 6,000 Registered Investment Advisors. We’re a leader in U.S. retail trading, executing an average of more than 940,000 trades per day for our clients, nearly a quarter of which come from mobile devices. We have a proud history of innovation, dating back to our start in 1975, and today our team of 10,000-strong is committed to carrying it forward. Together, we’re leveraging the latest in cutting-edge technologies and one-to-one client care to transform lives and investing for the better. Learn more at amtd.com by visiting the TD Ameritrade newsroom and by reading our stories at Fresh Accounts.

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