

ometimes when we try to look forward and understand where we are going, it helps to look back and understand where we have been. With technologies that have focused on the family office and wealth management industries, the focal point has shifted over time.

In the latter part of the twentieth century, most technologies in our space were focused on the advisor organizations. As a matter of fact, few people knew or understood what the term "family office" meant. Because of this, most technologies and the information they produced were built to help the advisors improve their work. The reports were primarily focused on combining data in a very specific manner and were fairly consistent throughout the industry. There was very little concern from the technologies and their platforms about the wealth owner. And given their client base was in fact the advisor organizations, why would they concern themselves with the needs or desires of their clients' clients?

The first major shift began to take place as the end-client, or wealth owner, began to request – and in some cases demand – information that was easy for them to digest and focused on their needs instead of those of their advisors. Thus began the great race to move toward a new way of combining data. Instead of just providing predetermined reports with very little data management, technology organizations began to find other platforms that contained the newly requested data combinations and access points.

The first decade of the 21st century marked the start of a partnership race between technology firms. You might have seen a company that worked primarily in investment data management and reporting partner with another technology company whose primary focus was trust management. Subsequently, you would suddenly see banks that were until then primarily serving in a trust environment start managing and investing on their clients' behalf. The client portals, document management, communications tools, and so forth were being brought together within the various technologies and platforms. Thus was born the first true integration development between technology companies serving the private wealth clientele.

As technologies advanced, the changes that were introduced have been additive – as transitions occurred to include new use cases and approaches to technology, prior technologies were not abandoned. In the family office and wealth management industry, the newest technology additions have been in the areas of management, reporting, and combining of data in its smallest, most granular units.

In the past, data points were combined in the background as a singular string, such as an activity. For example, to record and report on a new purchase of an equity or a capital call for an alternative investment, the individual data points were combined to create the activity for the platform. This is how data has traditionally been managed. Reporting out of the platforms was focused on combining the activities in ways that would hopefully provide the information the users requested. In this legacy approach, it was the technology builders, not the end-users, who predetermined what data was needed, important, and managed.

To help the integration aspects of each technology and platform, the inclusion of Application Programming Interfaces (APIs) has become standard. An API is a software intermediary that allows two applications to talk to each other. APIs represent a natural evolution for technology organizations, as they facilitate simpler platform integration. A major side benefit of APIs for the platform users was that suddenly there was access to individual, granular data points, allowing users to begin to independently choose which data points they wanted or needed to create individualized views of data.

While APIs greatly enhanced the end user experience, most platforms with APIs or similar data access methods still determined which data points could be included, which is leading to the next major shift in technology. Going forward, we will see a migration to full data access and the ability for users to select any data point that is included in a platform. The technologies will migrate toward an open data management and reporting architecture.

Many in our industry have already begun building their own version of this type of architecture and processes by creating data lakes and overlaying a reporting technology, such as Tableau or Power BI, on top of it. Every single data point is available and can be combined in any way the user sees fit. This technology shift in the family wealth space will result in functionalities that put the power to decide exactly what information, reports, and visualizations are important to the individual users, including the wealth owners or family members, as well as the family office and other advisors.

Perceptual Art and Data Management

To provide a visual representation of this type of data-point management, there is a type of art that fundamentally works in the same way – it is called "Perceptual Art." The concept behind this artform is to take individualized points of a given material and to shape and arrange each piece (or point) to ensure it is the right size, shape, location, color, and so forth. Placing the

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Seemingly random individual pieces – these are akin to the many data points stored in a technology platform.





Stunning visual art that emerges when the required pieces are combined and viewed in just the right way – this is akin to the personalized, meaningful insights users can extract by combining the right data points into customized visual reports.





You can learn more about Michael Murphy and Perceptual Art: www.perceptualart.com individual pieces and combining them in the right way delivers the surprising end result – where before there was just a random collection of objects, a vivid piece of art emerges when the art lover views it from just the right angle. One of the most well-known perceptual artists is Michael Murphy.

Q&A with Fintech Technology Expert Ankit Agarwal

Hopefully this visual representation of how data can be managed independently and then pulled together for any kind of visual or report helps to make sense of how current technologies are starting to utilize data. To further understand where data management in the private wealth space is going and how technologies are utilizing data, we invited Ankit Agarwal, Co-Founder and Chief Technology Officer for Hexaview Technologies, to share his insights on the technology and data changes that we see coming in the near future.

Q: Why do you believe that data is becoming more and more crucial to new technologies and leading existing technologies to change?

Agarwal: Businesses now have unrestricted access to immeasurable amounts of customer data as the little devices in our pockets have become an indispensable part of our daily life. Data has proven its power to revolutionize the world economy and lives. The use of cutting-edge analytical methods on very large, heterogeneous datasets, including structured, semi-structured, and unstructured data, from many sources, and in sizes ranging from terabytes to zettabytes, is known as big data analytics. Businesses can gain insights from the vast amounts of data available today, thanks to data analytics. Massive volumes of data are now produced by individuals, businesses, and machines. Examples include social media, cloud applications, and data from machine sensors.

Fintech is the most discussed topic in the world of finance where large volumes of data are being used. As the Internet of Things (IoT), mobile technologies, and better authentication techniques become more accessible, the value of data will rise. Fintech companies will continue to make significant investments in their data science teams so they can concentrate on data collecting and processing.

Data gives companies the ability to optimize their operations in real time and offer their clients the best services based on verifiable information. Reduced operating costs enable businesses to focus more on marketing and lowering customer prices, keeping them ahead of the competition. As a result, data insights can help fintech companies automate their operations to save money. The size of the world market for fintech technologies, estimated at \$110.5 billion in 2020, is expected to increase to \$698.5 billion by 2030, rising at a CAGR of 20.3% from 2021 to 2030.

The more information fintech companies have on their clients, the better they can service them. You can better focus your marketing and services

by segmenting your potential clients in addition to looking at credit ratings and other hard credit factors. By categorizing clients, segmentation can provide information about which items best suit their needs. With the help of this wealth of data, fintech companies can better understand the needs of their clients.

Personalized deals draw more attention from customers. According to research, clients are more than twice as likely to value customized offerings. Trust is essential in any business relationship. The credibility and dependability of an organization are determined by the standard of its user experience. That experience is becoming more mobile. If your program does not function as promised or is difficult to use, it will ruin the customer experience. Financial services now have more customizable alternatives. Fintech disruptors have driven established firms to change their strategies. Modern technology platforms on which fintech organizations are built enable them to be nimbler and swiftly respond to changing market conditions. Customer expectations have changed drastically as a result.

Data will become the lifeblood of innumerable enterprises as data-centric business models continue to gain traction among fintech firms and begin to play a bigger role in the sector. Due to the insights supplied by data, fintech will be better able to offer seamless service to its customers across all channels. As a result, the fintech industry is poised to gain an advantage and aid businesses in raising adoption rates by upgrading their services and providing more individualized goods and services. Data is the ideal ally to support fintech companies' user-oriented strategy because, unlike traditional banks, they concentrate on developing individualized financial services.

Although collecting all these terabytes of data is good, what adds value is the right analysis based on clean and accurate data. Predicting the accurate financial and behavioral moves of your customers can be a game changer for financial services firms. For example, if your financial advisor can predict future spending patterns based on the earlier purchasing habits of their clients, then they can better educate and alert clients and ensure discipline and model portfolio adherence.

Q: What trends do you see among the technology vendors and how have recent events changed their paths?

Agarwal: While COVID-19 severely affected the lives of everyone in the most brutal ways, it simultaneously gave every technology business the jolt of a lifetime. Technology vendors rushed to make sure their products and services continued to run even as everyone was locked up in their homes. That's when the dramatic shift to the cloud happened. Even the most traditional, conventional technology providers moved their systems to the cloud to make them accessible from anywhere in the world. New partnerships were formed and collaborations initiated to make this historic transition.

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Ankit AgarwalFintech technology expert

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Ankit Agarwal
Fintech technology expert

Today, cloud is becoming the defacto standard and even the biggest of enterprises – e.g., banks and financial institutions – are transitioning or have near-term plans to transition to the cloud. Data, which used to reside deep inside the software products, are now being securely stored in data lakes and data warehouses using cloud-native services.

Digitization of financial processes, such as "know your customer" (KYC), app-based money transfers, and digital signatures, changed the game and continue to accelerate. Single sovereign identity (SSI) digital currency wallets will become the new reality. Traditional banks working together with neo-banks to offer new and faster app-based digital services combined with the trust of the century-old banks will become the backbone of our financial operations. Again, accessibility of data through APIs made all this possible. This resulted in long-lasting partnerships between the old monks and the new cyber gurus, made possible only due to strong data collaboration.

Integrating alternative assets in the mainstream is becoming the cornerstone to offer all-inclusive services. Every technology provider is moving toward incorporating newer asset classes, e.g. cryptocurrency, and aggregating data to provide a panoramic picture across the entire spectrum of assets on a mobile-first approach. This is made possible by supporting a variety of data formats, templates (both structured and unstructured) and openly embracing the changes in data storage and retrieval.

Q: Do you believe there will be a central way to manage and share data in the wealth management and family office industries?

Agarwal: Democratizing data will lead to greater collaboration and result in more tailored services to each high-net-worth individual. Data extraction, transformation, and aggregation are becoming increasingly fast and enabling firms to offer better services in real time.

Until now, wealth management firms have used categorization and segmentation of their clients to cater to their needs. High-net-worth individuals, ultra-high-net-worth, ultra-ultra-high-net-worth, etc. This is how firms used to differentiate their services. With all the data in one place and building analytics on top of it, financial institutions or banks can now provide highly customized and tailor-made services to each individual and do so without involving any additional human cost or intervention. Imagine treating each client as a preferred customer, every piece of advice as unique and customized, every communication as personal – this can do wonders for the business.

It's not wrong to say that "Data is the new oil." In the new digital age, companies and people alike should be extremely cautious about how their data is collected, stored, utilized, and destroyed. An individual's data is their new digital identity and they should be very conscious of its availability and usage across the digital universe.

Facing Forward

As family offices and wealth advisors seek to provide more individualized services, the requirements of each individual user become of paramount importance. Technology firms realize that to be successful they must provide individualized data delivered in an environment that enables greater involvement from the end clients. In the past, the word that represented this attitude was "configurable." The more configurable something was, the more direct input was required from the individuals who ultimately needed and used the information.

With the new "Data is King" mentality, technology firms will focus less on gathering requirements on the front-end to produce the desired outcomes. Instead, they will deliver user environments where individuals will be able to select and combine data points, as well as create and modify the data views as they access and utilize the information. As long as the data management architecture and processes are in place to access each data piece, then the platforms will be able to provide the flexibility, usefulness, and superior client experience their clients expect, and do so in a single, highly configurable front-end interface. We look eagerly and patiently to the near future when this new era will become a reality.

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Kent Lawson Director Chief Technology Officer, Technology Integration Services

Kent Lawson is Director of Technology Integration Services at Family Office Exchange (FOX). With 25 years of experience as a leader in the wealth management industry, and a deep focus in technology for the family office, Kent's expertise in consulting, project management, analysis, and diligence around technology drives the FOX Technology Marketplace.

Prior to joining FOX, Kent had an established relationship with FOX as a market leader and as a member. Through his previous role with an enterprise family office and as a contributor to FOX forums, Kent brings over a decade of experience serving at the executive level within a single family office. His expertise in wealth management spans a variety of disciplines, including investment operations, technology, and compliance via working with RIAs, the SEC, and Global Investment Performance Standards (GIPS). He also served as a business analyst and consultant for Advent Software, as COO of a trust company, and other technology solution vendors. Kent also founded an outsource COO firm in the wealth management industry providing strategic leadership as a trusted advisor.

With a degree in Music Performance from Ball State University, Kent spent his early years performing as a jazz saxophonist and married another musician, which led him to his "day job" within the wealth industry as a part-time file clerk with an RIA. His background in creativity and thinking outside the box provided the foundation needed for designing innovative solutions in business process and technology making him perfectly suited for the family office industry.