

Emerging Technology Implications at Credit Unions

Prepared October 25th, 2019 by the Financial Health Network for
MEMBERS Development Company and National Credit Union Foundation



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Executive Summary

Credit unions tend to be on the forefront of financial health; implementing enterprise-level and consumer-centric strategies, designing high-quality products and services, and measuring their members' outcomes so they can pursue long-term opportunities. However, the landscape in and around financial services is shifting dramatically with the emergence and application of new disruptive technologies. The Financial Health Network believes that by harnessing the power of these emerging technologies, credit unions can improve the financial health of their members in new ways while embedding improved efficiencies that embrace greater financial inclusion, build trust, create new opportunities, and promote financial success.

The Financial Health Network assessed the emerging technology marketplace, and we have centered our recommendations on the following near-term opportunities for credit unions:



Leverage A.I. to improve existing processes.



Provide tailored advice through the use of chatbots.



Create data visualization through the use of AR/VR.



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Project Details

- Background
- Objectives
- Approach
- Advisory Team

Project Background & Objectives

Project Background

Credit unions need to place financial health at the center of their strategy and emerging technologies offer promising avenues to bring scale, depth, and success to those efforts. Emerging technologies are currently reshaping all markets and sectors. They are being deployed across industries to solve consumer and enterprise-level problems, and they are shifting the way society reacts to and expects tailored information. The Foundation, MDC, and the Financial Health Network believe that by harnessing the power of emerging technologies, such as machine learning and artificial intelligence, 5G networks, robotics, AR/VR, quantum computing, and chatbots, credit unions can leverage existing and new platforms to enhance member engagement strategies in ways that improve members' financial health.

Project Objectives

- To research emerging technologies (note: this research was not intended to identify business case considerations for embedding emerging technologies at credit unions, but rather to understand the consumer and business application of emerging technologies);
- Assess how companies, including financial institutions, are leveraging emerging technologies to advance financial health and well-being (note: this workstream was limited to examples found through secondary research);
- Identify practical applications of emerging technologies at financial institutions; and
- Propose practical applications of emerging technologies for credit unions.

Project Approach & Advisory Team

Project Approach

- Financial Health Network conducted a secondary research scan of emerging technologies and application at companies in the context of financial health;
- Financial Health Network conducted a series of interviews with credit union leaders (and leaders at emerging technology companies) to discuss how emerging technologies can be applied at credit unions as part of the institution's strategy to improve member/consumer financial health; and
- Financial Health Network synthesized insights to present practical applications of emerging technologies at credit unions that complement existing relationship-building tactics.

Project Advisory Team

- Mark Allen, Director of Architecture Services, CommunityAmerica Credit Union
- Erin Bykowski, Financial Educator, UW Credit Union
- April Clobes, President & CEO, MSUFCU
- Bill Lawton, President & CEO, Community Financial Credit Union
- Kevin Martin, SchoolsFirst Federal CU, SVP Organizational Performance & Strategic Planning
- Mike Valentine, President & CEO, BCU
- Tanan Miles, VP Electronic Banking, Ent Credit Union
- Ben Morales, CEO, Q-Cash Financial
- Noreen Schafer, Product Manager Strategic Innovation, Lake Trust Credit Union
- Charlie White, Business Transformation Officer, Affinity Federal Credit Union
- Natalie McLaughlin, Community Relations Manager, Community Financial Credit Union

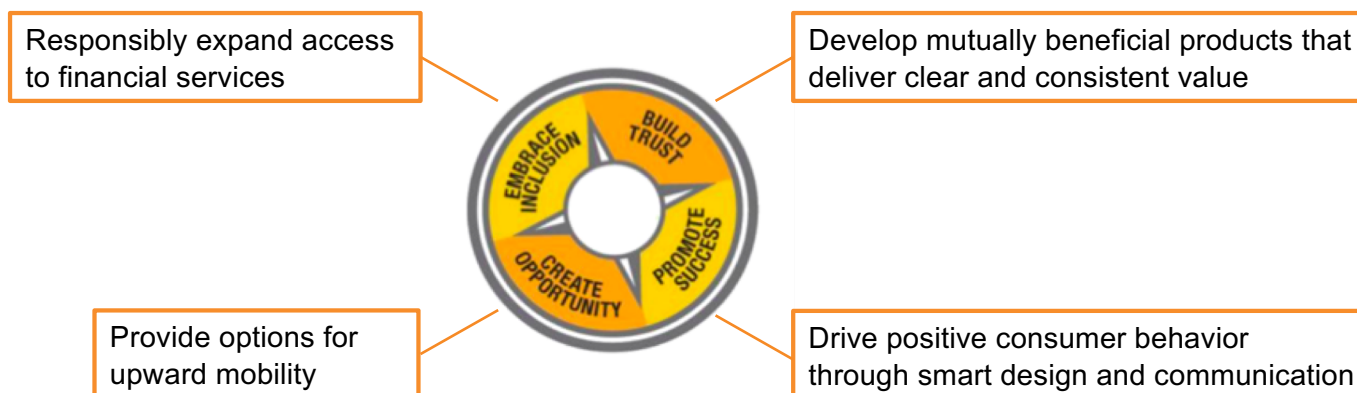
Assessment Framework

Our Compass for Determining Impact

The Compass Principles

The Financial Health Network leveraged the [Compass Principles](#) framework to assess impact of each emerging technology.

The Compass Principles are aspirational guidelines to assure quality innovation and execution in financial services - services that enable people to transact, borrow, save, and plan in ways that are beneficial to the consumer and profitable for industry. The Principles reflect the belief that the U.S. financial services marketplace can actively contribute to improving people's lives, and deliver sustainable value to all consumers and providers.



Artificial Intelligence



A.I. Presents Multiple Opportunities for CUs

Defining Artificial Intelligence

Artificial Intelligence (AI) is a field of computer science in which a machine is programmed to imitate human intelligence, learn, and adapt to changing circumstance. The field of AI can be separated broadly into (1) rule-based systems modeled on human reasoning and (2) machine learning systems that extract patterns out of data. Rule-based systems are constructed using if-then-else statements and have a fixed knowledge base or rigid intelligence. Machine learning systems are programmed to create new rules and change or discard existing knowledge with new data; they have an adaptive intelligence.

Recommendations

The Financial Health Network believes there are three distinct and feasible opportunities for credit unions to leverage AI in ways that improve consumers' financial health:

1. Employ machine learning algorithms to augment underwriting standards and make efficient, objective, and accurate assessments of potential borrowers.
2. Ensure that data is representative so that the output is unbiased.
3. Detect and prevent fraud by analyzing consumer behavior and deviations from existing patterns.



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Embrace Greater Inclusion via A.I. Underwriting

Recommendation

Employ machine learning algorithms to augment underwriting standards and make efficient, objective, and accurate assessments of potential borrowers.

We believe credit unions can increase evaluation accuracy while decreasing costs by leveraging A.I. when underwriting credit products, potentially through a partnership with a fintech such as [Omniscience](#). The most apparent A.I.-underwriting solution involves the use of additional (alternative) data. Digital-first providers are leveraging machine learning using alternative data sources, such as smartphone data, to evaluate creditworthiness and make recommendations. This allows for product adoption from a larger pool of consumers who would otherwise be turned down with *traditional* underwriting factors.

In-market examples:

- MDC's [Member Score Project](#) showcases the potential of using additional data to expand underwriting decisions, which can be scaled through artificial intelligence. By incorporating member data beyond credit scores, credit unions maintained or increased loan volume without increasing defaults.
- [Lenddo](#) is an app that predicts an individual's creditworthiness by evaluating 12,000 variables of smartphone data, including social media use and browsing information. This data is used to produce a credit score.
- [Discover is using ZestFinance's](#) automated machine learning tools to improve lending decisions and cut default rates.
- [Equifax uses neural network modeling](#), a machine learning method, to improve performance and accuracy in credit evaluation.
- UK-based [Oakam](#) has underwritten hundreds of thousands of loans to customers with no- or thin-credit files by leveraging A.I. to assess an applicant's network associations, reaction data, and online behaviors.



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A.I. Holds Promise for Reducing Bias & Fraud

Primary Recommendation

Regardless of the A.I. application and use-case at credit unions, leaders must ensure that the data used is representative and exhaustive so that the output of the application is unbiased. A.I. has the potential to reduce human-driven biases in financial services by automating approvals and processes. While this technology can standardize decision-making, it also has the potential to reinforce existing biases, as Amazon's [gender-biased A.I. recruiting tool](#) demonstrated. Credit unions need to be hyper-sensitive that the algorithm which fuels the A.I. application adheres to all regulations.

Additional Recommendation

A.I. has been proven to help detect and prevent fraud by analyzing consumer behavior and deviations from existing patterns. This information recognizes suspicious account activity often undetected through manual review. [Plaid](#) is a financial data aggregation company with advanced fraud protection capabilities developed through machine learning. Financial institutions partner with Plaid to facilitate secure transactions. [Sift](#) developed a comprehensive reporting structure leveraging A.I. to provide financial institution partners with real-time visibility into all areas of fraud operations in order to help make accurate data-driven decisions. According to [Dwolla](#), the company realized a 50% drop in fraud by partnering with Sift.



A.I. Can Improve Member Financial Health

Financial Health Network understands the use of A.I. at credit unions spans all business lines and can improve operational efficiencies by reducing meaningful costs. But this technology can also improve members' financial health. We believe A.I. applications at credit unions will rapidly expand over the coming years and by leveraging a quality framework (vis-à-vis Compass Principles) credit unions can target consumer outcomes with this emerging technology.

	Augment Underwriting	Ensure Unbiased Output	Detect & Prevent Fraud
Embrace Inclusion <i>Responsibly expand access to financial services</i>	Strong Application	Strong Application	Moderate Application
Build Trust <i>Develop mutually beneficial products that deliver clear and consistent value</i>	Strong Application	Strong Application	Strong Application
Promote Success <i>Drive positive consumer behavior through smart design and communication</i>	Strong Application	Moderate Application	Moderate Application
Create Opportunity <i>Provide options for upward mobility</i>	Strong Application	Moderate Application	Strong Application



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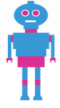


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12

Chatbots



Chatbots Improve Convenience and Service

Defining Chatbots

Chatbots are an application of A.I. by which a computer program interacts with a consumer and provides information or services. Chatbots can use sophisticated natural language processing systems, such as virtual assistants like Amazon's Alexa, or simpler text-based systems, such as messaging applications or interactive messaging via a website. A.I. enables chatbots to "learn" through interactions and [improve future responses](#). Using the knowledge it acquires, a chatbot can provide [contextual insights](#) by making personalized recommendations to a user in real-time. Even without machine learning, chatbots exist that can operate as an FAQ: they can instantaneously provide appropriate responses for more questions than a human user would ever need to navigate.

In-market pilot example:

- MDC and TDECU conducted a pilot of a chatbot by [Interface](#), which guided prospective members through the online account application process; the chatbot's assistance increased application completion and submission from 9% to 42.9%.

Recommendations

Similar to potential applications of A.I., we believe there is a wealth of opportunities for credit unions to leverage chatbots in ways that improve consumers' financial health. We identified three applications worth further exploration:

1. Provide basic member services, including balances and payments, through voice- and SMS-based chatbot systems.
2. Ensure that chatbots can aid members in navigating mobile applications to improve access.
3. Use predictive analytics in chatbot applications to support members in achieving financial goals and encouraging responsible financial decision-making.



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Build Member Trust with Chatbots

Primary Recommendation

Provide basic member services, including checking balances and making payments, through voice- and SMS-based chatbot systems (near-term) and seek to advance chatbot capabilities to improve member financial health (mid-term).

Chatbots provide convenience and reliable service to members while deepening the credit union's understanding of member behavior. Members can access chatbots at any time for a wide range of requests and the quality of service is standardized. They can also provide the perceived privacy that members experiencing challenges appreciate.

Chatbots are being deployed in financial services to provide relatively-mundane banking requests, such as assisting members in checking balances and making payments. But the advanced use of this technology will stretch credit unions to provide a more personal financial management services, such as tracking spending, receiving reminders to pay bills, and evaluating financial goals. Credit unions should align chatbot applications to a financial health framework focused on improving member outcomes.

In-market examples:

- Bank of America's Erica® may be the best-known large bank example of a chatbot application, though Wells Fargo and Chase have developed similar platforms that interact with customers and make personalized recommendations.
- Trim is a chatbot application that provides real-time spending adjustments by aggregating and evaluating a user's accounts. Trim uses predictive analytics to support users in achieving financial goals and encourage responsible financial decision-making. The chatbot will find and cancel unwanted subscriptions to save money, negotiate high priced bills, and recommend more affordable substitutes for different banking services.



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Near-term & Long-term Impact Potential

Credit unions can build trust and aid members in navigating the increasingly complex and digitized financial services industry using chatbots, which can make products and services more easily available. Chatbots can also promote member success, particularly those that use machine learning and predictive analytics; these can be used to nudge consumers to make more responsible financial decisions.

	Provide basic member services via chatbots	Leverage chatbots to improve financial health
Embrace Inclusion <i>Responsibly expand access to financial services</i>	Weak Application	Strong Application
Build Trust <i>Develop mutually beneficial products that deliver clear and consistent value</i>	Strong Application	Strong Application
Promote Success <i>Drive positive consumer behavior through smart design and communication</i>	Moderate Application	Strong Application
Create Opportunity <i>Provide options for upward mobility</i>	Moderate Application	Strong Application

Augmented & Virtual Reality



Expand Product & Service Access with AR/VR

Differentiating and Defining AR/VR

Augmented Reality (AR) superimposes digital elements on a live view of the surrounding environment such as the view through a smartphone camera or a pair of AR glasses. A range of smartphone applications employ AR to create an interactive digital experience that combines real and computer-generated elements.

Virtual Reality (VR) is a simulated 360-degree digital experience that is implemented using a headset or immersive environment. The computer-generated experiences range from mimicking the real world to fictional or fantastical environments.

AR alters the user's perception of reality by adding digital elements to the current environment, whereas VR transforms the user's perception of reality by immersing them in another virtual environment.

Recommendations

AR and VR present unique opportunities for credit unions to differentiate their experience and offering in the marketplace by:

1. Creating financial inclusion and expanding access to products and services through improved digital interactions for hard-to-reach member segments.
2. Leveraging AR and VR for data visualization including financial education for members and training for employees.
3. Integrating AR and VR into mobile banking applications to guide members in basic services and advanced recommendations.



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Reach More Members & Enhance Experiences

Primary Recommendation

Create financial inclusion and expanding access to products and services through improved digital interactions for hard-to-reach member segments.

AR and VR can transform the member experience by making digital products and services more accessible to consumers, particularly for federally-chartered credit unions. Members can visualize and experience products and services virtually without the burden of entering a branch location and interact with the credit unions directly through the experience. The use of AR and VR in financial services seems more prominent internationally, though we anticipate more adoption in the United States over the coming years.

In-market examples:

- GTE Financial, one of Florida's largest credit unions, launched [GTE 3D](#) which allows members to experience and access services and interact with credit union experts.
- Worldpay and MasterCard in partnership with Wearality, are developing the capability for [consumers to make purchases within a virtual reality environment](#).
- Sri Lanka's Hatton National Bank expanded access and awareness about bank products through "[New World Banking](#)" project.
- [Comarch](#), a Polish fintech, combines financial planning and investment advisory into an interactive VR experience that offers a personalized newsroom, meetings with financial advisors, and portfolio overviews.
- Commonwealth Bank of Australia and Halifax are offering "home finder" apps using AR to show users houses for sale as they pass them.



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AR/VR Has Financial Health Impact

AR and VR have multiple applications credit unions should consider to increase engagement and improve experiences. It is important that credit unions weigh the member financial health implications of adopting these technologies, whereas many institutions are leveraging AR and VR without designing comprehensive strategies centered on consumer impact.

Primary Recommendation

Use AR and VR for data visualization including financial education for members and training for employees.

- AR and VR can be employed as tools for organizing and visualizing data in three-dimensional space. Fidelity, for example, has used a VR technology to create an immersive investment experience for consumers called StockCity. [StockCity represents investments as buildings](#), the size and color of which are determined by trading volume and price movements. Additionally, AR and VR can be used to facilitate effective teaching and learning opportunities. Fidelity collaborated with Amazon to develop a [VR financial agent named Cora](#) that can be used to provide consumer education and more robust training for employees.

Additional Recommendation

Integrate this technology into mobile banking applications in order to assist customers in locating branches and ATMs and providing information on products and services offered.

- AR mobile applications are used to assist consumers in [locating branches and ATMs](#). Consumers can scan the surrounding area using a mobile device to find information on nearby banks. For example, [National Bank of Oman](#) is using AR to help customers locate nearby branches and ATMs and find retail offers while walking.



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AR/VR Can Potentially Improve Financial Health

AR and VR is transforming members' life experiences by making digital products and services more engaging and accessible. The technology has the potential to benefit credit unions and members, but credit unions need to ensure actual member impact before adopting these platforms. AR and VR alters perception and thereby influences member behavior.

	Expand access to products and services	Help members visualize data	Guide members to locations and information
Embrace Inclusion <i>Responsibly expand access to financial services</i>	Strong Application	Moderate Application	Moderate Application
Build Trust <i>Develop mutually beneficial products that deliver clear and consistent value</i>	Strong Application	Moderate Application	Moderate Application
Promote Success <i>Drive positive consumer behavior through smart design and communication</i>	Strong Application	Strong Application	Strong Application
Create Opportunity <i>Provide options for upward mobility</i>	Strong Application	Moderate Application	Weak Application



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21

Robotics





RPA Improves Operational Efficiencies

Primary Recommendation

Streamline operations, including transactions, accounting, and compliance, by integrating Robotic Process Automation into existing processes. (RPA has broad applicability with the financial services sector to improve efficiency.) RPA can streamline processes and provide quality assurance by automating transactions, accounting functions, compliance measures such as employees' personal trading disclosures and activity, and risk exposure evaluations.

In-market examples:

- Three MDC Owners (Kinecta FCU, Coastal CU, Farmers Insurance FCU) conducted a successful Robotic Process Automation (RPA) pilot of Pegasystems to speed up employee password resets to just one click, update deposit rates across multiple external and internal systems, and create automated payroll deductions for new loan repayments.
- J.P.Morgan Chase improved document review efficiency and accuracy by developing a new product, COIN (Contract Intelligence), that extracts data from documents at rapid speeds and reduces human error such as loan-servicing mistakes.
- Provident Credit Union used RPA to close inactive credit and debit cards as well as improve the accuracy of the escheatment process, in which error-free services are essential.

Additional Recommendation

RPA is poised to transform the modern economy. Job functions that can be automated may become obsolete, and new positions, particularly those that complement robotic process automation by delivering insights and customer service using technology, will be created. Credit unions can support employees in this transition by adopting inclusive talent management strategies. We recommend credit unions create a robust talent management strategy to attract, train, and retain employees in positions complementary to RPA, such as data interpretation and completing nuanced processes ill-suited to automation.



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RPA Will Change Employment

Defining Robotics

Robotic Process Automation (RPA) is a technology that automates rules-based processes. A software application or "robot" is programmed to respond to an input and complete repetitive tasks, such as processing a transaction. RPA enables rapid and practically error-free completion of tasks, as any RPA errors are systematic. By automating time-consuming processes, the use of RPA can enable employees to contribute higher-value work. Over the coming years, RPA will cause the elimination of jobs and significant professional displacement. Automating processes that were previously manual is cost-saving, and Ernst & Young estimates that RPA can reduce costs of manual operations by 25 to 40 percent. RPA, however, can enhance credit union operations without necessarily threatening jobs: it can help credit unions expand their businesses without having to increase costs, especially for those that are geographically dispersed.

Note: RPA software can be configured to operate on existing systems and therefore does not necessarily require intensive infrastructure investment.

Primary Recommendations

The recommendations below suggest the use of RPA should be implemented at credit unions to improve operational efficiencies, but may have limited financial health impact for members.

1. Streamline operations, including transactions, accounting, and compliance by integrating RPA into existing processes.
 - Credit unions need to first evaluate which processes RPA is well-suited to improve.
2. Create a robust talent management strategy to attract, train, and retain employees in positions complementary to RPA.



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Focusing on Employee Financial Health

RPA has the potential to improve products and services for members as processes are completed more quickly and accurately, though we believe the greatest financial health impact involves the credit union as an employer. RPA will benefit credit unions' bottom lines and simultaneously poses a risk to employees. Credit unions can support employees in this transition by adopting inclusive talent management strategies that pose more meaning to previously mundane positions.

	Streamline operations with RPA	Design talent management around displaced workers
Embrace Inclusion <i>Responsibly expand access to financial services</i>	Weak Application	Weak Application
Build Trust <i>Develop mutually beneficial products that deliver clear and consistent value</i>	Moderate Application	Weak Application
Promote Success <i>Drive positive consumer behavior through smart design and communication</i>	Weak Application	Weak Application
Create Opportunity <i>Provide options for upward mobility</i>	Weak Application	Strong Application

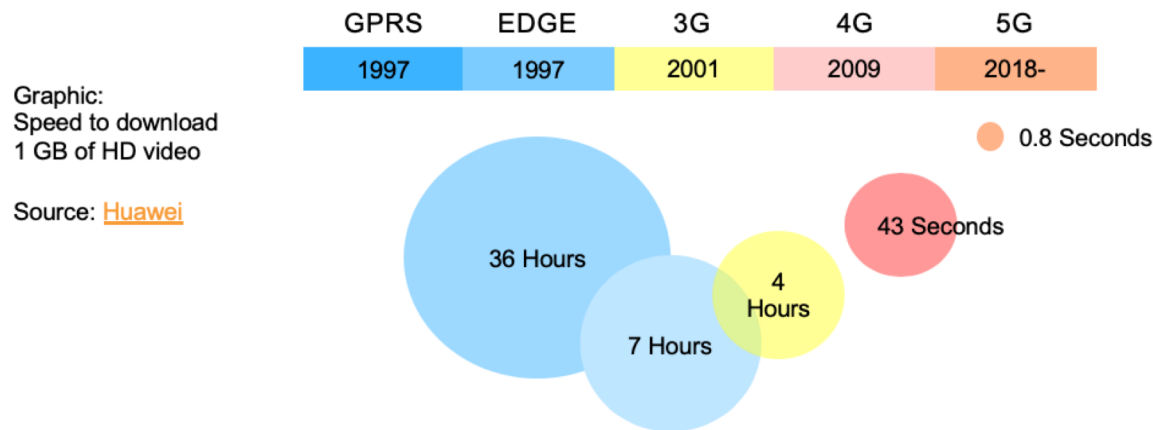
5G Networks



5G Will Revolutionize Our World

Defining 5G

5G is a network technology with improved connectivity and bandwidth that is poised to replace 3G and 4G Long-Term Evolution (LTE) networks, and potentially Wi-Fi over the next few years. It enables rapid transmission of data from the cloud, so less data will need to be stored on applications on a device. It also enables more reliable mobile internet connectivity by allowing for millions of connections to the network without disruptions in service. 5G will improve connectivity not only among people using devices but also among devices, many of which will be collecting and sharing real-time data. It is backward compatible, meaning 5G devices are compatible with 3G and 4G networks, though 3G and 4G devices will not be able to use 5G networks.



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5G is a “Hold” Strategy

Long-Term Recommendation

Implement 5G in branches to provide services with enhanced technological capabilities, including facial recognition verification for making withdrawals and payments. However, we do not believe immediate implementation of this technology is worth pursuing until 5G becomes the *standard* network technology in our society and implementation costs become reasonable for credit unions.

In addition to expanded access and improve product and service delivery to members in rural areas that currently have limited internet access, 5G will enable enhance capabilities in credit union branches and self-service experiences, including:

- Mobile experiences made possible by the low latency and high speed of 5G
 - Aided by 5G, financial services are likely to become increasingly mobile, both with the proliferation of personal mobile devices and the potential for temporary mobile banking centers in highly-trafficked areas.
 - The latency (delay) of 5G networks will be less than one millisecond compared to fifty milliseconds for 4G networks. This high speed connectivity will revolutionize many aspects of financial services, including high-frequency trading and mobile trading.
- Facial recognition verification for making withdrawals or payments, the use of augmented reality and virtual reality in customer interaction and employee training, and the rapid processing of real-time data to provide personalized services and improved fraud prevention.



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5G Will Improve Members' Financial Health

5G wireless networks will be high-capacity, high-speed, and low-latency. The improved functionality will enhance connectivity and user experience, enabling credit unions to build greater trust and promote long-term success with members. The short-term financial health opportunity enables credit unions to embrace greater financial inclusion. Widespread and affordable access to 5G will be critical for those who depend on mobile services to use the internet (those historically disenfranchised who are more [dependent on mobile services to access the internet](#)).

	Enhanced experiences in branches	Enhanced self-service experiences
Embrace Inclusion <i>Responsibly expand access to financial services</i>	Moderate Application	Strong Application
Build Trust <i>Develop mutually beneficial products that deliver clear and consistent value</i>	Strong Application	Strong Application
Promote Success <i>Drive positive consumer behavior through smart design and communication</i>	Strong Application	Strong Application
Create Opportunity <i>Provide options for upward mobility</i>	Strong Application	Strong Application



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Quantum Computing



Quantum Computing Will Become Important

Defining Quantum Computing

Quantum computing is a system that employs the laws of quantum mechanics to dramatically increase computational processing power and capabilities. The technology enables [a fundamentally new approach](#) to solving problems by which elements of a problem are encoded into a complex quantum state, and the state is manipulated to represent a solution to the problem. Whereas classical computing relies on binary systems using combinations of 0s and 1s to encode and transfer information, quantum computing simulates natural phenomena on an atomic or subatomic scale including [superposition](#) (by which information can exist in non-binary states), [entanglement](#) (by which information can be strongly correlated and function as a system), and [interference](#) (by which quantum states can be controlled by amplifying or cancelling information). The quantum computing field is in early stages of development and has enormous potential to advance knowledge in multiple fields, notably the physical sciences and machine learning.

In-market examples:

1. Researchers affiliated with [J.P.Morgan and IBM](#) are leveraging quantum computers to simplify risk calculations associated with equity trading.
2. [Barclays](#) has been experimenting with quantum computing technology for nearly a year in hopes of speeding up portfolio optimization models like Monte Carlo simulations.
3. [True Positive Technologies](#) is partnering with large global institutional investors to improve trading capabilities.



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Quantum Computing is a “Hold” Strategy

Long-Term Recommendations

Access open-source quantum computing software to use and contribute to quantum computing capabilities, harness quantum computing enhanced computational power to solve complex optimization problems and improve precision of predictive analytics, and understand and be prepared to adopt quantum computing to combat cyber security risk that potential nefarious uses of quantum computing pose in the future.

Additionally, quantum computing will enable the rapid processing of big data. The technology’s enhanced computational power will dramatically reduce execution time to solve complex optimization problems. Quantum computing will be able to handle more parameters than classical computing, and thereby incorporate more complete information into analyses, including an increased precision of predictive analytics. Classification algorithms are used in predictive analytics and pattern identification. Fraud detection is a classification process in which a classifier is trained to distinguish fraudulent activity from non-fraudulent activity. Quantum computing can dramatically increase the number of attributes evaluated and improve precision of these processes.

Caution

A frequently-cited concern for financial institutions is the risk that quantum computing can be used to hack encryption systems in the future. While this risk is theoretically possible, no quantum computer large enough to execute this capability yet exists. Additionally, many encryption systems do not use factoring, and are therefore not susceptible to this risk. Nevertheless, it is important to understand and be prepared to use quantum computing to combat the potential security risk in the future.



Quantum Computing Has Minimal Impact

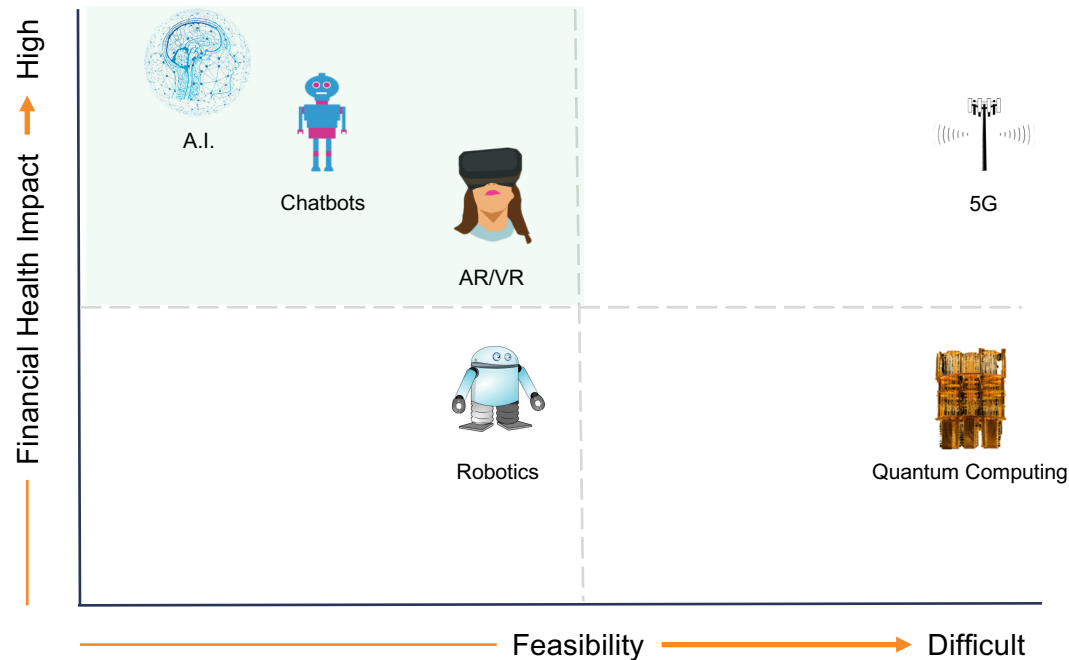
The financial health implications of quantum computing are unknown, though we do not believe the technology will lead to improved member financial health in the near term. The technology will enable rapid processing of big data which can accelerate progress in the development of A.I. and in turn, play an important role in expanding access to financial products and services.

General applications of quantum computing	
Embrace Inclusion <i>Responsibly expand access to financial services</i>	Moderate Application
Build Trust <i>Develop mutually beneficial products that deliver clear and consistent value</i>	Weak Application
Promote Success <i>Drive positive consumer behavior through smart design and communication</i>	Weak Application
Create Opportunity <i>Provide options for upward mobility</i>	Weak Application

Recommendations Evaluation

Focus Strategies on High Impact Technologies

Financial Health Network prioritized near-term opportunities for credit unions utilizing a 2x2 matrix. (Note: feasibility considerations included cost, implementation complexities and time, and availability of solutions.)



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A.I., Chatbots, and AR/VR Improve Outcomes

After evaluating emerging technologies, we believe the most feasible solutions for credit unions to implement (near- and mid-term) and that have the greatest impact on members' financial health are through the use of artificial intelligence platforms, chatbots, and AR/VR tools.

Our research warrants further analysis and evaluation, though we believe credit unions can incorporate these emerging technologies by:



Leveraging A.I. to improve existing processes.



Providing tailored advice through the use of chatbots.



Creating data visualization through the use of AR/VR.



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Thank You!

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