Banking 2026 and Beyond:

Will your IT Survive the Next Decade's Tech Tsunami?

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Partner & Co-Founder

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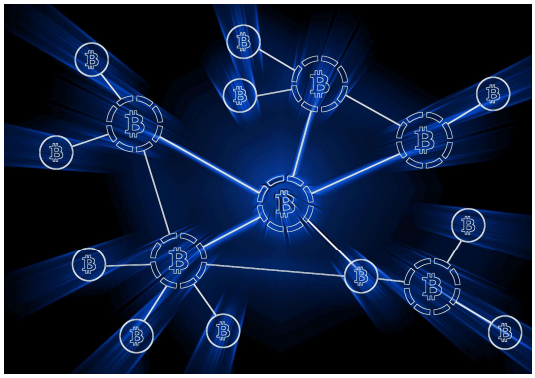
Agenda: Exploring Future Banking Innovations



- Emerging Technologies Shaping the Banking Landscape
- AI Trust, Risk, and Security Management (AI TRiSM) for Banks
- Continuous Threat Exposure Management (CTEM) and Cybersecurity Trends
- Transformative IT and Development Approaches
- Intelligent Applications and Generative AI in Banking
- Future-Ready Consumers and Workforce
- Strategic Adaptation for Community Banks

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Emerging Technologies Shaping the Banking Landscape

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Blockchain Wallets: Redefining Transactions, Identity, and Security

Revolutionizing Transactions

Blockchain wallets enable secure, fast, and transparent transactions without intermediaries in financial services.

Enhanced Identity Verification

Wallets utilize blockchain technology to provide reliable and tamper-proof identity verification methods.

Robust Security Mechanisms

Advanced encryption and decentralized ledgers in wallets reduce fraud and improve security significantly.

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Quantum Networks: The Next Frontier for Secure Data Exchange

Quantum Encryption

Quantum encryption uses principles of quantum mechanics to secure data against hacking and cyberattacks.

Secure Data Exchange

Quantum networks enable ultra-secure data exchange, enhancing confidentiality in sensitive communications.

Financial Communication Security

Quantum networks could protect financial communications from cyber threats and unauthorized access.

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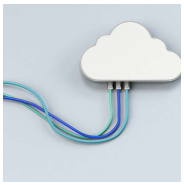
Cloud and Edge Computing: Enabling Agility and Scalability



Cloud Computing Agility

Cloud computing enables banks to quickly adapt and scale digital services through flexible resource management.

Edge Computing Benefits

Edge computing processes data closer to users, reducing latency and improving real-time banking experiences.

Enhanced Digital Banking

Combining cloud and edge technologies empowers banks to offer faster, scalable, and reliable digital services.

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Cloud vs. Edge vs. On-Premise Computing

Feature / Factor	**Cloud Computing** ☁️	**Edge Computing** 🌐	**On-Premise** 🏢
Where Processing Happens	Centralized data centers (often remote, 100s–1000s miles away)	Near the data source (branch servers, ATMs, mobile devices)	Inside the bank's own data center or physical servers
Latency (Speed)	Higher latency (50–200ms typical)	Very low latency (<20ms)	Moderate (depends on internal network)
Scalability	Highly scalable on demand	Scales with distributed edge nodes	Limited to in-house hardware capacity
Cost Structure	Pay-as-you-go, OPEX model	Moderate upfront + distributed infra; reduces bandwidth costs	High upfront CAPEX + ongoing maintenance
Data Control & Privacy	Data stored offsite (regulatory concerns if outside country)	Sensitive data processed locally before being sent to cloud	Full control — all data stays within the bank
Resilience / Uptime	Depends on internet/cloud provider	Works locally even if cloud connection drops	Works if internal systems are up, but single point of failure risk
Security	Strong, but dependent on provider & shared responsibility	Enhances security by reducing data transit & enabling local enforcement	Full control, but bank must manage all defenses
Best Banking Use Cases	AI-driven analytics, regulatory reporting, CRM systems	Real-time fraud detection, instant payments, ATM/branch monitoring	Core banking systems, customer records, regulatory archives

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Key Concepts and Benefits of Open Banking

Broader Financial Access

Open banking allows customers to access a wider variety of financial services seamlessly through integrated platforms.

Enhanced Transparency

Open banking promotes transparency by providing customers clear insights into their financial data and service options.

Improved Personalization

Customers benefit from personalized financial offerings tailored to their specific needs and behaviors.

Fostering Fintech Innovation

Open banking drives competition and innovation in fintech, leading to better products and services.

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AI Trust, Risk, and Security Management (AI TRiSM) for Banks

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Overview of AI TRiSM Technologies and Principles

Trustworthy AI Systems

AI TRiSM ensures AI systems are reliable and maintain integrity within financial institutions.

Security Measures

Robust security methodologies protect AI systems from threats and vulnerabilities.

Regulatory Compliance

AI TRiSM aligns AI operations with financial industry regulations and standards.

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Application in Fraud Detection and Regulatory Compliance

Fraud Detection with AI

AI TRiSM enables banks to identify and prevent fraudulent activities quickly and accurately.

Regulatory Compliance Assurance

AI helps banks comply with complex regulations, minimizing legal and reputational risks.

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Building Consumer Trust Through Transparent AI

Importance of Transparency

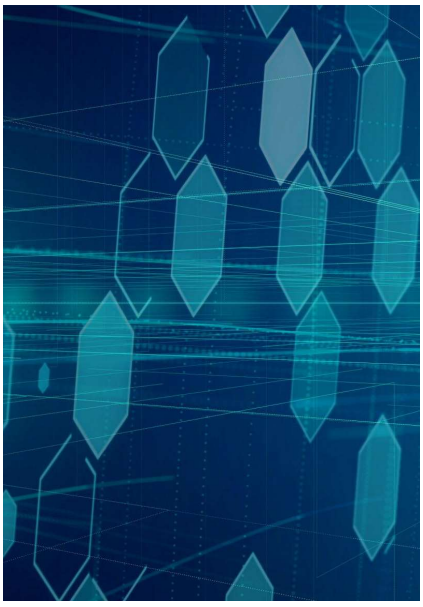
Transparent AI practices help consumers understand data usage and build confidence in technology decisions.

Consumer Data Clarity

Consumers seek clear explanations on how their personal data is collected and utilized in AI systems.

Trust in Financial Decisions

Transparent AI decisions in financial services increase consumer trust and satisfaction with outcomes.



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Continuous Threat Exposure Management (CTEM) and Cybersecurity Trends

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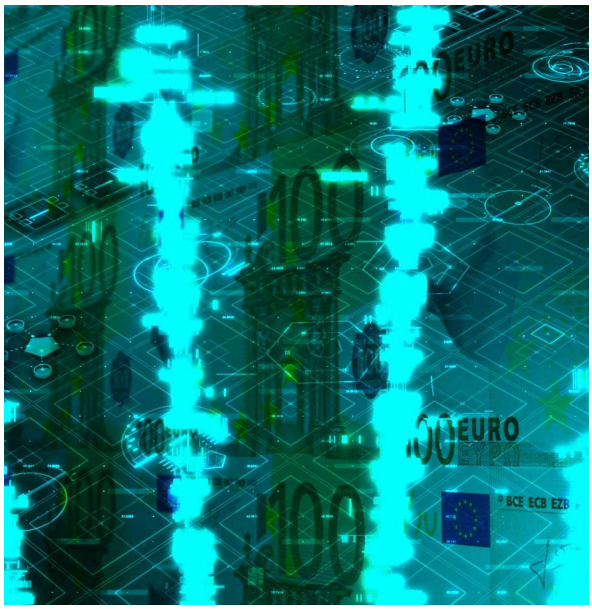
Defining CTEM and Its Relevance in Banking

Continuous Threat Monitoring

CTEM involves ongoing surveillance of the evolving threat landscape to identify potential risks early.

Risk Anticipation and Mitigation

Banks use CTEM to proactively anticipate threats and implement measures to reduce potential impacts.



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Operationalizing CTEM: Real-Time Threat Identification

Advanced Analytics Usage

CTEM uses advanced analytics to instantly detect suspicious activities in digital environments.

Automation in Detection

Automation enables rapid identification and response to threats, minimizing risk and impact.

Rapid Response Capability

Real-time threat detection allows immediate containment to protect assets and infrastructure.

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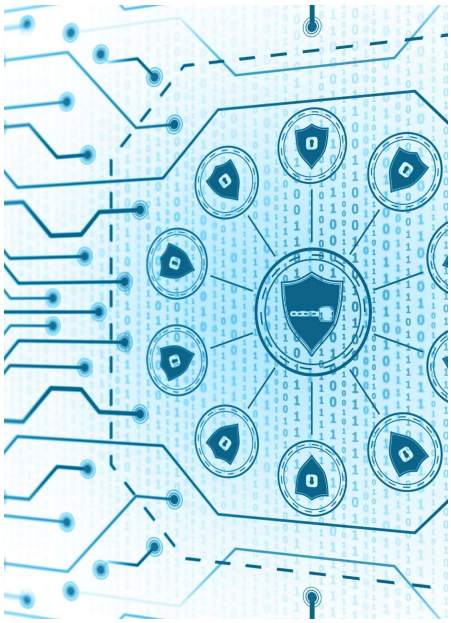

Trends in Cyber Threats and Effective Risk Mitigation Strategies

Evolving Cyber Threats

Cyber threats constantly change, requiring banks to remain vigilant against new attack methods and vulnerabilities.

Layered Security Models

Implementing multiple security layers strengthens defense against unauthorized access and data breaches.

Employee Training Programs

Regular training empowers employees to recognize and prevent cyber attacks, enhancing overall organizational security.

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Transformative IT and Development Approaches

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Platform Engineering: Streamlining Digital Banking Infrastructure

Scalable Infrastructure

Platform engineering enables banks to build scalable infrastructure supporting growing digital banking demands efficiently.

Modular Design

Using modular design, platform engineering allows flexible updates and integration within digital banking systems.

Improved Deployment Speed

Platform engineering accelerates deployment processes, enabling faster rollout of banking features and services.

Operational Efficiency

Optimized platform engineering increases operational efficiency by simplifying infrastructure management and maintenance.

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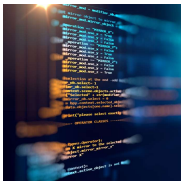
AI-Augmented Development: Accelerating Innovation and Efficiency



Accelerated Code Production

AI integration speeds up coding processes, allowing faster software development cycles in banking.

Enhanced Quality Assurance

AI-driven tools enable thorough code testing and error detection, improving software reliability.

Rapid Innovation in Banking

Integrating AI helps banks innovate quickly while upholding high standards and compliance.

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Industry Cloud Platforms Tailored for Community Banks

Tailored Banking Tools

Cloud platforms offer customized tools designed specifically for the unique needs of community banks.

Compliance Features

Built-in compliance ensures community banks meet regulatory requirements effortlessly and securely.

Digital Transformation

Industry clouds enable community banks to modernize operations through accessible and secure cloud technology.

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Intelligent Applications and Generative AI in Banking

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Democratized Generative AI: Empowering Staff and Customers

Accessible AI Tools

Generative AI tools are increasingly accessible to both staff and customers in banks, fostering innovation and efficiency.

Empowering Employees

AI-driven solutions help bank employees solve complex problems and make informed decisions quickly.

Enhancing Customer Experience

Customers benefit from AI by receiving personalized assistance and more efficient service.

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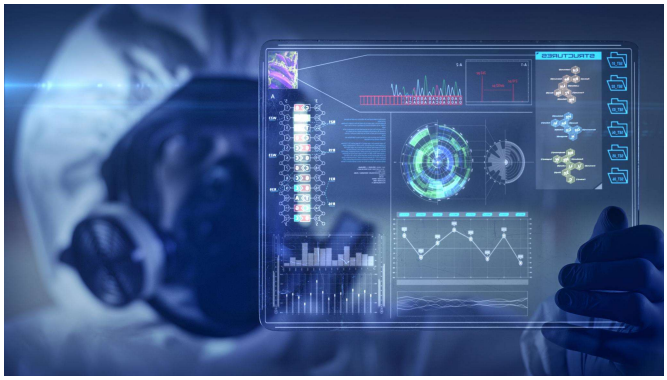
Intelligent Applications: Personalizing Financial Services



AI Data Analysis

AI systems analyze customer financial data to identify patterns and preferences accurately.

Personalized Financial Advice

Tailored financial advice is generated based on individual customer profiles and needs.

Enhanced Customer Engagement

Personalized offers and support increase customer satisfaction and engagement in financial services.

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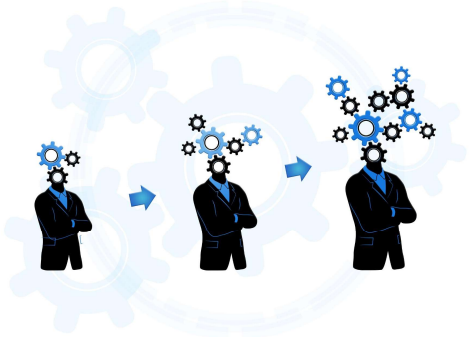
Impacts on Customer Experience and Operational Workflows



Streamlined Operations

Intelligent solutions optimize and automate workflows to enhance operational efficiency across processes.

Reduced Manual Tasks

Automation decreases the need for manual intervention, minimizing errors and saving time.

Improved Service Speed

Faster processing and response times lead to quicker service delivery and increased customer satisfaction.

Enhanced Customer Experience

Overall improvements in service quality and efficiency create better experiences for customers.

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Future-Ready Consumers and Workforce

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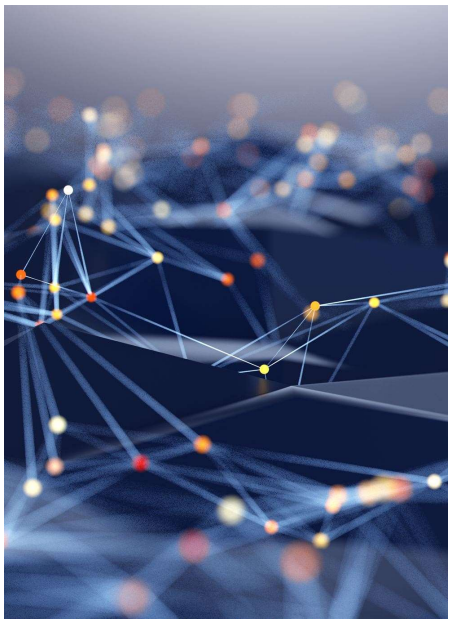

Augmented Connected Workforce: Enhancing Productivity and Collaboration

Advanced Communication Tools

Modern communication platforms facilitate seamless interaction among distributed banking teams, enhancing collaboration.

AI-Powered Productivity

Artificial intelligence tools optimize workflows and increase efficiency in banking operations.

Distributed Workforce Collaboration

Teams working remotely remain connected and productive through integrated digital collaboration technologies.

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Machine Customers: The Rise of Automated Financial Agents

Emergence of Machine Customers

Automated financial agents are becoming active participants in the banking industry, representing a new class of customers.

Autonomous Transactions

These agents can conduct transactions independently without human intervention, increasing efficiency and speed.

Account Management Automation

Machine customers manage accounts autonomously, improving accuracy and reducing the need for manual oversight.

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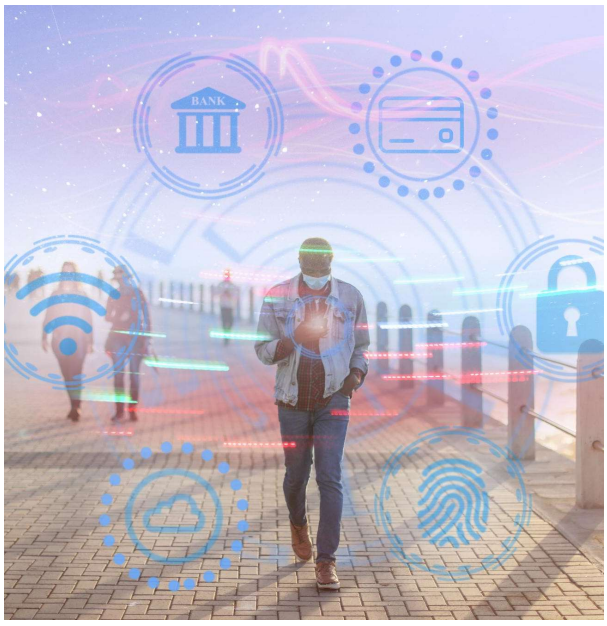

Immersive-Reality Technologies: New Horizons for Customer Engagement

Virtual Reality Engagement

Virtual reality provides immersive environments that enhance customer interaction and experience in banking services.

Augmented Reality Interfaces

Augmented reality overlays digital information to create intuitive and interactive banking interfaces for customers.

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Strategic Adaptation for Community Banks

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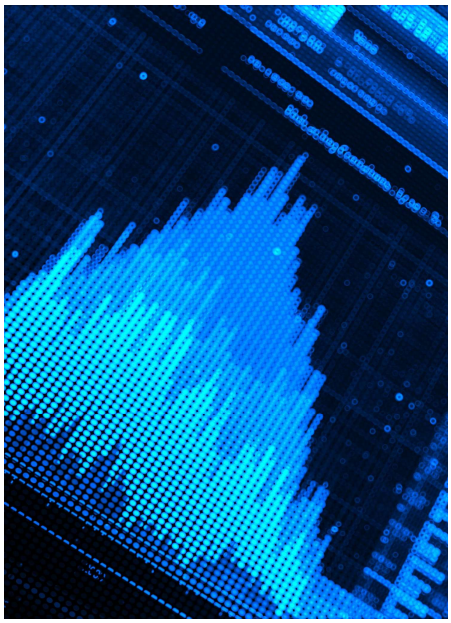

Adoption Rates, Trends, and Graphs: Where Are Community Banks Today?

Current Adoption Rates

Understanding technology adoption rates helps community banks assess their market positioning and readiness.

Emerging Trends in Banking

Identifying emerging technology trends enables community banks to innovate and stay competitive.

Growth Opportunities

Analyzing data highlights growth areas for community banks to enhance services and customer experience.

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Best Practices for Evaluating and Implementing Emerging Technologies

Effective Technology Assessment

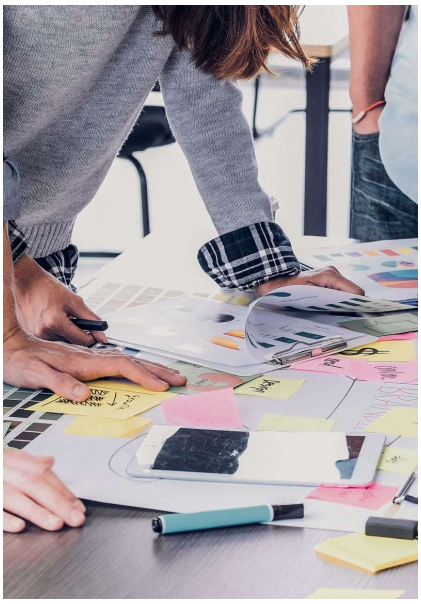
Community banks should evaluate emerging technologies based on relevance, feasibility, and potential benefits to reduce risk.

Risk Minimization Strategies

Implementing new technologies with thorough testing and phased rollouts helps minimize operational and financial risks.

Maximizing Benefits

Strategic planning ensures technology adoption enhances efficiency, customer service, and competitive advantage.



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Why Starting Now Is Critical: Turning Uncertainty Into Opportunity

Proactive Action Benefits

Taking early steps allows community banks to gain a strategic advantage in uncertain environments.

Building Resilience

Proactive efforts strengthen community banks' capacity to withstand future challenges and uncertainties.

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Conclusion: Preparing for the Future of Banking

Embracing Innovation

Banks that adopt new technologies and innovate continuously will lead the future financial landscape.

Wise Risk Management

Effective risk management strategies are essential for sustainable growth in the evolving banking sector.

Customer-Centric Solutions

Focusing on personalized and customer-focused services drives loyalty and success in banking.

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