

# AI WILL ALWAYS NEED YOU:

## Financial Services



*Artificial intelligence (AI) has been around since at least the mid-1950s, but in the last few years (and even weeks) the technology has developed at a rapid rate. It seems like the entire world has its eyes on AI. What can it do, who can it help, who can it hurt, and about one million additional questions, concerns, and insights have folks in both the business and policy worlds activated.*

*Enter our blog series: AI Will Always Need You – an AI-drafted, human-supervised blog series highlighting the pros, cons, and everything in between about the world of artificial intelligence. We'll ask ChatGPT questions about how AI can be applied across industries and shared responsibility to create ethical, helpful technology. Our last installment covered privacy and security, but this time around we're diving into how this AI language model addresses financial services.*

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**How can the financial services industry incorporate AI tools in a universally accessible and understandable way to the general public?**

1. User-Centric Design: Intuitive interfaces with user feedback loops.
2. Education & Onboarding: Provide tutorials and financial literacy initiatives.
3. Transparency: Explain AI decisions and have clear data usage policies.
4. Multilingual Support: Cater to diverse languages and cultural nuances.
5. Assistive Technologies: Integrate features for those with disabilities.
6. Simplicity: Ensure user-friendly interactions.
7. Affordability: Offer basic AI guidance at low or no cost.
8. Mobile Optimization: Ensure full functionality on mobile platforms.
9. Data Security: Prioritize robust encryption and cybersecurity.
10. Partnerships: Collaborate with educational and governmental bodies.
11. Continuous Adaptation: Regularly update AI models based on changing needs.
12. Offline Feature: Allow some functionality without constant internet.

The essence is to make AI tools user-focused, transparent, and widely accessible in the financial industry.

**These examples are fine but it doesn't really answer the question how. How will AI help developers provide things like affordability and offline features that it outlines?**

**To what extent can AI-powered solutions predict financial market downturns, and how can we ensure these predictions don't inadvertently trigger them?**

AI tools have become an essential asset in the financial realm, adept at sifting through massive datasets to glean insights into potential market downturns. By processing historical trends, real-time data, and investor sentiment, they offer valuable foresights. However, their accuracy is not without limits. Events that are unprecedented or unpredictable, like global pandemics or geopolitical shifts, can challenge AI's predictive power.

**AI powered prediction tools in the financial services industry could also further empower criminals looking to manipulate, disturb, and crash the market, leading to massive financial harms on a global scale.**

Furthermore, there's a real concern that if AI predictions become too influential, they could inadvertently trigger market panics, effectively creating self-fulfilling prophecies. Thus, while AI serves as a powerful forecasting tool, it's crucial to combine its insights with human judgment, ensure transparent communication of its predictions, and continuously refine its models for better accuracy and responsibility.

Privacy-preserving AI techniques like homomorphic encryption or secure multi-party computation can allow the processing of data without revealing it. These efforts are part of an area known as Privacy-preserving AI or Machine Learning, which focuses on enabling AI to learn from data while maintaining privacy.

### **What mechanisms can be put in place to ensure transparency in AI-driven financial decisions, especially when the underlying algorithms are inherently opaque?**

Ensuring transparency in AI-driven financial decisions, despite the inherent opaqueness of underlying algorithms, is vital. One approach involves using interpretability tools, like LIME or SHAP, to shed light on model decisions. It's also beneficial to have standardized documentation detailing the AI development process.

Third-party audits can provide an unbiased review of AI systems, highlighting biases or irregularities. To enhance user trust, simplified summaries of AI decisions can be shared, clarifying the main influencing factors. Open sourcing some algorithms, while not always feasible, can invite external scrutiny.

**Speaking of regulatory reporting, what agency gets jurisdiction here? The CFBP? The CFTC? Would a new agency around AI be deployed that has a financial services arm? It's hard to imagine how nuanced and complicated regulating AI related financial service tools could be.**

Regulatory reporting, ethical guidelines, and ongoing public engagement also play a role in fostering transparency. Furthermore, continuous education for AI teams and the inclusion of diverse perspectives can further promote ethical and transparent AI practices in finance.

### **How can AI technologies be used to enhance financial inclusion for underserved communities?**

1. Alternative Credit Scoring: By analyzing data like mobile usage or utility payments, AI can help assess creditworthiness for those lacking traditional financial histories.

**This could be incredible if used in the correct context, otherwise it could become eerily similar to the social scoring practices we see in China that are often used to further oppress people.**

2. Virtual Assistants: AI-driven chatbots can offer low-cost financial advice and services, making it viable for banks to cater to areas where traditional banking isn't economical.

3. Personalized Financial Education: AI can deliver tailored financial literacy content, helping communities better navigate financial services.

**Financial literacy is something with which underserved groups notoriously struggle. This is further compounded by the fact that most public schools in America do not offer financial literacy courses or programs. The use of AI in this context could provide tremendous opportunities for equity.**

4. Fraud Prevention: AI can swiftly identify unusual transaction patterns, safeguarding both institutions and clients.

5. Tailored Banking Products: By understanding unique financial behaviors, AI can help design products specifically for underserved communities.

6. Mobile Solutions: AI-enhanced mobile apps can provide a spectrum of financial services, leveraging high mobile phone usage in many underserved regions.

7. Optimized Remittances: AI can streamline remittances, vital for many in underserved areas, making them faster and less costly.

Incorporating these AI functionalities can drive financial institutions to more effectively serve and empower previously marginalized communities.

#### **Are there potential biases in AI-driven financial systems, and how can policy and technology address these systematically?**

AI-driven financial systems can manifest biases originating from skewed training data, the inherent complexities of algorithms, reinforcing feedback loops, and unintentional human biases during development. To combat these, a combination of technological solutions and policy measures is essential.

Regular fairness audits, especially by external entities, can help pinpoint and rectify biases. Transparent, explainable AI models make it easier to inspect and adjust decision-making processes. Ensuring diverse development teams and representative training data can proactively reduce biases. Technological tools designed specifically to detect and correct biases in AI models are invaluable.

**This is probably the surest way for AI to be an unbiased tool for "good." Investing in a diverse workforce is crucial if the United States wants to continue to lead in innovation.**

From a regulatory standpoint, governments can set fairness benchmarks, while public reporting on model performance can boost transparency. Engaging with stakeholders can provide broader insights into potential issues, and a foundation in strong ethical guidelines ensures AI development remains centered on fairness.

#### **How can policy and technology strike a balance between leveraging data for AI advancements in finance and ensuring users' privacy?**

Balancing the tremendous potential of AI advancements in finance with the imperative of user privacy is a nuanced endeavor that requires the symbiotic interplay of policy and technology. From a policy standpoint, robust data protection regulations are vital.

**You can once again consider this a call for a national data privacy law.**

These regulations should emphasize data minimization, ensuring that only essential data is collected. Additionally, a clear framework for informed consent ensures that users are not only aware of but also have control over how their data is utilized. Moreover, policies should champion the principle of data portability, allowing users to move, transfer, or delete their personal information upon request.

On the technological front, advancements such as differential privacy provide means to use large datasets without revealing individual identities. Encryption techniques, especially homomorphic encryption, can allow data to be processed without ever being decrypted, thus preserving user privacy. Furthermore, federated learning is emerging as a transformative approach where AI models are trained at the data source itself, ensuring raw data never leaves its original location.

In essence, while the finance sector stands to gain immensely from AI's data-driven insights, it's paramount that these innovations are underpinned by stringent privacy safeguards. This equilibrium not only fortifies user trust but also ensures the sustainable and ethical growth of AI in finance.

**How can countries collaborate to set global standards for the intersection of AI, finance, and public policy? If challenges arise when AI-driven financial systems cross borders, how might collaborative policy address these complexities?**

Navigating the intersection of AI, finance, and public policy on a global scale necessitates unprecedented collaboration between nations. To set global standards, countries can embark on joint initiatives via international forums or bodies dedicated to financial regulation and AI ethics. These platforms can foster dialogue, facilitate the exchange of best practices, and provide opportunities for the co-creation of universally accepted guidelines. Standardizing definitions—for instance, what constitutes 'ethical AI' in finance—would be a foundational step, ensuring all stakeholders operate with mutual understanding.

Challenges inevitably arise when AI-driven financial systems cross borders due to differences in data protection standards, financial regulations, and technology adoption rates. To navigate this, collaborative policy could focus on establishing interoperability standards that respect individual nation's sovereignties while facilitating smooth cross-border operations.

**The EU-U.S. Data Privacy Framework could be a great starting point for policymakers to reference and build upon as they begin to regulate in this space.**

Mutual recognition agreements, where countries acknowledge and respect the regulatory decisions of their peers, could be another avenue to explore. Furthermore, setting up international task forces or working groups dedicated to monitoring and addressing the real-time challenges of cross-border AI in finance would ensure agility in response. In essence, while the intricacies of integrating AI, finance, and public policy on a global stage are multifaceted, they can be addressed effectively through genuine collaborative efforts, continuous dialogue, and a shared vision of ethical and robust financial systems.