AI Strategy for Pharo Foundation Finance Transformation

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Abstract

This report outlines an AI strategy for Pharo Foundation's finance transformation, focusing on enhancing financial management and operational efficiency across Pharo Development and Pharo Ventures. The strategy employs the 3Rs framework—Replace, Reimagine, and Recombine—to integrate AI into finance functions. Key initiatives include a unified financial intelligence platform, intelligent process automation, predictive analytics, compliance and risk management tools, and a financial decision support system. The implementation roadmap spans 36 months, addressing data quality, connectivity, and skill gaps. Successful adoption of this strategy will improve operational efficiency, collaboration, financial controls, and decision-making, aligning with Pharo's mission of fostering self-reliance in Africa.

1 AI Strategy for Pharo Foundation Finance Transformation

1.1 Executive Summary

The Pharo Foundation, encompassing both Pharo Development (non-profit) and Pharo Ventures (for-profit), is dedicated to fostering self-sufficiency in Africa through education, water management, and productivity enhancement. As the organization advances its finance transformation strategy to enhance financial management and operational efficiency, artificial intelligence (AI) presents significant opportunities to accelerate and deepen this transformation.

This AI strategy proposes a structured approach to integrating AI capabilities into Pharo Foundation's finance functions, with an emphasis on the 3Rs framework: Replace manual processes, Reimagine operations, and Recombine existing systems. Key initiatives include implementing a unified financial intelligence platform, intelligent process automation, predictive analytics, compliance and risk management tools, and a financial decision support system.

By implementing this AI strategy, Pharo Foundation can expect enhanced operational efficiency across both Development and Ventures arms, improved collaboration across countries of operation, strengthened financial controls, and enhanced decision-making capabilities. Implementation will follow a three-phase approach over 36 months, requiring investments in technology infrastructure, talent development, and organizational change management.

For successful implementation, the Foundation must address data quality challenges, connectivity issues in African regions, and skill gaps while ensuring AI applications align with the organization's mission of fostering self-reliance in Africa. With thoughtful implementation, AI can become a powerful enabler of Pharo Foundation's vision of "a vibrant, productive, and self-reliant Africa."

1.2 Introduction

Pharo Foundation operates through two main arms: Pharo Development, focusing on public goods and not-for-profit projects, and Pharo Ventures, investing in private sector and for-profit ventures. Both arms work toward achieving Pharo's missions but utilize different tools and approaches (Pharo Foundation, 2023). This dual structure creates unique financial management challenges that must be addressed through a comprehensive transformation strategy.

The Foundation has recently embarked on a finance transformation journey, moving from Xero and Approvalmax to Microsoft Dynamics Business Central (BC) as its enterprise resource planning (ERP) system. This migration aims to modernize financial systems, streamline financial processes, and enhance financial data management to improve decision-making and operational efficiency (Pharo Foundation Finance Transformation Strategy, 2024). However, implementing BC has faced challenges, including user adaptation issues and inconsistent workflows across countries of operation.

Artificial intelligence presents a significant opportunity to enhance this finance transformation. As Castelo et al. (2019) note, "AI is on the verge of reshaping the future of business operations, with the market for AI in transportation projected to reach $10.3 billion by 2030." In finance specifically, AI can automate routine tasks, enhance decision-making with data-driven insights, improve compliance monitoring, and optimize resource allocation (Jung & Seiter, 2021).

This AI strategy outlines how Pharo Foundation can leverage AI technologies to accelerate and enhance its finance transformation, supporting both arms in achieving their missions more effectively. The strategy aligns with Pharo's vision of "a vibrant, productive, and self-reliant Africa" by enabling more efficient, transparent, and data-driven financial operations that will ultimately strengthen the Foundation's impact across its education, water, and productivity missions.

1.3 AI Strategy

1.3.1 Strategic Business Objectives

The AI strategy for Pharo Foundation's finance transformation is designed to support the organization's vision of "a vibrant, productive, and self-reliant Africa" by enhancing financial operations across both Pharo Development and Pharo Ventures. This strategy directly supports Pharo's three core missions:

1. **Education Mission**: By optimizing financial resources and improving resource allocation decisions, AI will help the Foundation maximize the impact of its educational initiatives, from early childhood education to vocational training.
2. **Water Mission**: AI-enhanced financial planning will improve cost-effectiveness and sustainability of water infrastructure projects, ensuring communities across Africa have access to safe and affordable water sources.
3. **Productivity Mission**: Through better financial analytics and decision support, the Foundation can more effectively eliminate barriers to employment and productivity for working people.

At the operational level, the AI strategy aims to enhance the finance transformation by: - Modernizing financial systems through intelligent automation and advanced analytics - Streamlining financial processes through AI-powered workflow optimization - Enhancing financial data management with improved data integration and

quality controls - Improving decision-making through predictive analytics and scenario modeling - Maintaining strong controls and visibility through AI-enhanced risk management

As Brynjolfsson and Mitchell (2017) observe, "AI is driven by data. To fully leverage the value of AI at an enterprise level, organizations should focus on their proprietary information and treat it as a high-value, critical asset." For Pharo Foundation, this means leveraging its unique financial and operational data across multiple countries to generate insights that drive mission impact.

1.3.2 Strategic AI Frameworks Application: The 3Rs Model

To structure the AI transformation of Pharo Foundation's finance function, we apply the 3Rs model: Replace, Reimagine, and Recombine (Iansiti & Lakhani, 2020). This framework provides a systematic approach to identify opportunities for AI implementation across the finance function.

1.3.2.1 Replace: Automating Manual Financial Processes

The first dimension of transformation involves identifying routine, manual processes that can be automated through AI:

- **Financial Document Processing**: AI can extract data from invoices, receipts, and financial documents through optical character recognition (OCR) and natural language processing (NLP), eliminating manual data entry. This is particularly valuable for Pharo Foundation's operations across multiple African countries, where document standards may vary.
- **Transaction Categorization**: ML algorithms can automatically categorize financial transactions based on historical patterns, reducing manual classification work and improving consistency. This addresses the current challenge of maintaining consistent financial records across Development and Ventures arms.
- **Basic Reporting and Reconciliation**: AI can automate the generation of standard financial reports and perform preliminary reconciliation of accounts, freeing finance staff to focus on analysis and strategic tasks. This directly supports the objective to "streamline and standardize processes to eliminate bottlenecks, improve efficiency and maximize controls" (Pharo Foundation Finance Transformation Strategy, 2024).

1.3.2.2 Reimagine: Transforming Financial Operations

The second dimension involves fundamentally rethinking how financial work is performed:

- **Proactive Financial Risk Management**: Rather than reactive monitoring, AI can continuously analyze financial data to identify potential risks before they materialize, enabling proactive mitigation. As noted by Maedche et al. (2019), "AI-powered risk management can transform how organizations identify, assess, and mitigate financial risks."
- **Intelligent Financial Forecasting**: Moving beyond traditional forecasting methods, AI can analyze multiple internal and external data sources to generate more accurate predictions about financial performance and resource requirements. This addresses the Foundation's need for "data-driven decision-making" and "utilizing financial data analytics for insights and informed decisions" (Pharo Foundation Finance Transformation Strategy, 2024).

- **Cross-Entity Financial Insights**: AI can break down silos between Pharo Development and Pharo Ventures, identifying patterns and relationships that would be difficult to discover manually. This directly supports the objective to develop "a unified financial system that integrates data from both non-profit and for-profit operations" (Pharo Foundation Finance Transformation Strategy, 2024).

1.3.2.3 Recombine: Enhancing Existing Systems

The third dimension focuses on integrating AI with existing systems to enhance their capabilities:

- **AI-Enhanced Cloud Infrastructure**: Adding AI capabilities to the Foundation's cloud-based systems (Microsoft 365 and Google Suite) can improve data management, security, and accessibility. This aligns with the infrastructure modernization goal to "upgrade financial IT infrastructure to cloud-based systems for scalability and accessibility" (Pharo Foundation Finance Transformation Strategy, 2024).
- **Intelligent Connectors Between Systems**: AI can facilitate seamless data flow between the Foundation's various systems, including the new Microsoft Dynamics Business Central ERP, HRIS, EMIS, MES, and LMS/HIMS. As Collins et al. (2021) note, "AI can significantly enhance system integration by intelligently mapping data across disparate systems."
- **Data-Driven Process Orchestration**: AI can optimize end-to-end financial processes by analyzing process performance data and recommending improvements, supporting the Foundation's goal of "continuous improvement" with "regular reviews and refinements" (Pharo Foundation Finance Transformation Strategy, 2024).

1.3.3 Specific AI Use Cases for Pharo's Finance Transformation

Based on the 3Rs analysis and aligned with Pharo Foundation's finance transformation goals, five key AI use cases have been identified:

1.3.3.1 1. Unified Financial Intelligence Platform

This platform will serve as a centralized hub for financial data and insights across Pharo Development and Pharo Ventures:

- **AI-Powered Data Integration**: Intelligent data integration tools will consolidate financial information from multiple systems and countries, creating a single source of truth for financial data.
- **Cross-Entity Financial Analysis**: AI algorithms will analyze patterns and relationships across both arms of the Foundation, helping leaders understand the full financial picture and identify opportunities for synergy.
- **Automated Multi-Entity Reporting**: The platform will generate customized reports for different stakeholder groups, from Board members to country managers, with insights relevant to their specific needs and responsibilities.

Benefits: This platform will provide a consolidated view of financial activities, improve reporting quality and timeliness, and enable better cross-entity decision-making. According to Mikalef and Gupta (2021), "Organizations with integrated AI-powered financial systems can achieve up to 25% improvement in decision-making speed and accuracy."

1.3.3.2 2. Intelligent Financial Process Automation

This use case focuses on automating routine financial tasks through AI:

- **AI Document Processing**: Advanced OCR and NLP will extract and validate data from financial documents, reducing manual data entry and errors. This is particularly valuable for operations in countries with limited digital infrastructure.
- **Smart Workflow Routing**: AI will route financial approvals and documents based on content, urgency, and organizational rules, streamlining processes and reducing bottlenecks.
- **Exception Detection and Handling**: AI will identify unusual transactions or patterns that require human attention, focusing staff time on high-value activities while routine transactions are processed automatically.

Benefits: This automation will reduce manual effort, improve accuracy, accelerate processing times, and enhance controls. Research by Davenport and Ronanki (2018) found that "finance process automation using AI can reduce processing times by 50-70% while improving accuracy by 30-40%."

1.3.3.3 3. Predictive Financial Analytics

This use case leverages AI to improve financial planning and resource allocation:

- **AI-Based Forecasting**: Machine learning models will generate accurate forecasts for both non-profit program expenses and for-profit venture performance, improving budget planning.
- **Cash Flow Optimization**: AI algorithms will analyze cash flow patterns to optimize liquidity management across the Foundation's operations in multiple countries and currencies.
- **Resource Allocation Recommendations**: AI will analyze program performance data to recommend optimal resource allocation to maximize impact across the Foundation's three missions.

Benefits: These capabilities will enhance financial planning accuracy, improve resource utilization, and reduce financial risks. As noted by McKinsey (2024), "Organizations that implement AI-driven forecasting can reduce forecast errors by 30-50% compared to traditional methods."

1.3.3.4 4. AI-Enhanced Compliance and Risk Management

This use case strengthens governance and risk management:

- **Automated Compliance Monitoring**: AI will continuously monitor financial transactions and processes for compliance with relevant regulations across the multiple African jurisdictions where Pharo operates.
- **Fraud Detection and Prevention**: Machine learning models will identify potential fraudulent activities by detecting unusual patterns in financial data, protecting the Foundation's resources.
- **Risk Assessment for Projects and Ventures**: AI will evaluate the financial risks associated with development projects and venture investments, supporting better decision-making.

Benefits: These capabilities will strengthen governance, improve risk management, and reduce compliance issues. According to Shin et al. (2022), "AI-powered compliance monitoring can detect up to 90% of potential compliance issues before they become problematic."

1.3.3.5 5. Financial Decision Support System

This use case enhances decision-making through AI-powered insights:

- **Scenario Modeling**: AI will generate and evaluate multiple scenarios for financial decisions, helping leaders understand potential outcomes and tradeoffs.
- **Impact Analysis**: The system will assess the financial impact of decisions on the Foundation's overall mission and specific programs, ensuring alignment with strategic goals.
- **Natural Language Interface**: A conversational AI interface will allow non-technical users to query financial data and receive insights in natural language, democratizing access to financial intelligence.

Benefits: This system will enable data-driven decisions, improve investment outcomes, and make financial intelligence more accessible across the organization. Research by Lee and See (2004) indicates that "AI-powered decision support systems can improve decision quality by 20-30% by providing relevant information at the right time."

1.4 Implementation Roadmap

The implementation of AI for Pharo Foundation's finance transformation will follow a phased approach over 36 months, balancing quick wins with long-term capability building. This roadmap considers the Foundation's current ERP implementation, which has faced some challenges but is "finally off to the races" (Pharo Finance Notes, 2024).

1.4.1 Phase 1: Foundation (0-6 months)

The initial phase will focus on establishing the necessary infrastructure, skills, and preliminary use cases:

1.4.1.1 AI Readiness Assessment

- Conduct a comprehensive assessment of the finance function's AI readiness across all countries of operation
- Evaluate data availability, quality, and accessibility
- Assess current technology infrastructure and skills
- Identify high-priority use cases based on potential impact and feasibility

1.4.1.2 Data Infrastructure Preparation

- Establish data governance framework aligned with the Foundation's values and operational needs
- Develop data quality standards and improvement processes
- Create data integration architecture to connect Microsoft Dynamics Business Central with other systems
- Implement data security protocols appropriate for financial information

1.4.1.3 Pilot Implementations

- Deploy automated document processing for invoices and receipts
- Implement a basic financial analytics dashboard for the CFO and Global Finance Lead
- Develop a proof-of-concept for the natural language interface to financial data

1.4.1.4 Team Training and Skill Development

- Conduct AI awareness training for all finance staff
- Provide specialized training for the finance analysts who will be working most closely with AI tools
- Establish a community of practice for AI in finance across the Foundation

1.4.1.5 Key Milestones and Success Metrics

- Completion of AI readiness assessment with clear action plan
- Data governance framework established and approved
- At least two pilot implementations successfully deployed
- 80% of finance staff completed basic AI awareness training

According to the MITRE AI Maturity Model, "Organizations in the early stages of AI adoption should focus on preparing their data infrastructure and conducting limited pilots to demonstrate value" (Bloedorn et al., 2023). This approach allows Pharo Foundation to build momentum while establishing the necessary foundation for more advanced implementations.

1.4.2 Phase 2: Expansion (7-18 months)

The second phase will focus on scaling successful pilots and implementing more complex AI capabilities:

1.4.2.1 Scaling Successful Pilots

- Extend document processing automation to all countries of operation
- Expand the financial analytics dashboard to country-level finance managers
- Implement full predictive forecasting capabilities for both Development and Ventures

1.4.2.2 System Integration

- Integrate AI capabilities with Microsoft Dynamics Business Central
- Connect financial AI tools with the Foundation's cloud infrastructure (Microsoft 365)
- Establish connections with HRIS, EMIS, MES, and LMS/HIMS systems to enrich financial data with operational context

1.4.2.3 Advanced AI Capability Implementation

- Deploy comprehensive predictive analytics for financial forecasting
- Implement risk management tools for compliance monitoring
- Develop cross-entity analysis capabilities to support unified financial management

1.4.2.4 Team Upskilling and Change Management

- Provide advanced AI skills training for selected finance team members
- Implement change management initiatives to drive adoption
- Establish feedback mechanisms to continuously improve AI tools

1.4.2.5 Key Milestones and Success Metrics

- AI document processing implemented across all countries
- Predictive forecasting achieving accuracy targets (within 10% of actuals)
- At least 50% reduction in manual data entry for financial transactions
- Positive user satisfaction scores (>80%) from finance team members

As noted by Kausel et al. (2022), "The expansion phase of AI implementation requires strong change management to overcome potential resistance and ensure adoption." Pharo Foundation will need to carefully balance technical implementation with organizational change management during this phase.

1.4.3 Phase 3: Optimization (19-36 months)

The final phase will focus on advanced AI capabilities, continuous improvement, and knowledge sharing:

1.4.3.1 AI-Driven Continuous Improvement

- Implement AI tools that automatically identify process improvement opportunities
- Establish automated quality monitoring for financial data and processes
- Develop self-optimizing AI models that improve with continued use

1.4.3.2 Advanced Analytics and Insights

- Deploy sophisticated scenario planning capabilities
- Implement impact assessment tools that connect financial decisions to mission outcomes
- Develop AI-powered strategic planning support for both arms of the Foundation

1.4.3.3 AI Center of Excellence

- Establish a dedicated AI Center of Excellence for finance
- Develop internal AI innovation capabilities
- Create a framework for evaluating and implementing new AI technologies

1.4.3.4 Knowledge Sharing Across Operations

- Implement AI-powered knowledge management systems
- Establish communities of practice across countries
- Develop training and documentation to support continuous learning

1.4.3.5 Key Milestones and Success Metrics

- AI Center of Excellence established and operational
- At least 70% of routine financial processes automated
- Financial forecasting accuracy improved to within 5% of actuals
- Demonstrated link between AI insights and improved program outcomes

As Strich et al. (2021) note, "The most mature stage of AI implementation involves embedding AI capabilities throughout the organization and creating continuous improvement mechanisms." By the end of this phase, AI should be fully integrated into Pharo Foundation's finance function and delivering measurable value.

1.4.4 Resource Requirements

Successful implementation of this AI strategy will require investments in technology, talent, and organizational change:

1.4.4.1 Technology Infrastructure

- **Cloud Computing Resources**: Enhanced cloud infrastructure to support AI workloads, potentially expanding current Microsoft 365 capabilities
- **AI Development Platforms**: Tools and platforms for developing, testing, and deploying AI models
- **Data Storage and Processing**: Expanded data warehouse capabilities to support AI analytics
- **Integration Middleware**: Tools to facilitate data flow between systems, especially between Business Central and other operational systems

1.4.4.2 Talent and Skills

- **Data Scientists and AI Specialists**: Either hired directly or contracted, to develop and implement AI solutions
- **Financial Technology Experts**: To bridge the gap between finance domain knowledge and AI capabilities
- **Change Management Professionals**: To support the organizational transition to AI-enhanced finance operations
- **Training Programs**: Comprehensive training to upskill existing finance staff

1.4.4.3 Organizational Changes

- **New Roles and Responsibilities**: Creation of new positions such as AI Product Owner for Finance and Data Governance Lead
- **Revised Workflows and Processes**: Redesign of financial processes to incorporate AI capabilities
- **Governance Structures**: Establishment of oversight committees for AI implementation and ethics
- **Cross-Functional Collaboration Mechanisms**: Forums and processes to facilitate collaboration between finance, IT, and program teams

The investment required for this AI strategy implementation should be viewed in the context of expected returns. According to McKinsey (2024), "Organizations that successfully implement AI in finance functions can expect cost reductions of 20-30% while improving decision quality and speed."

1.4.5 Monitoring and Evaluation Metrics

Drawing from Pharo Foundation's Global Monitoring Framework (GMF), this AI strategy will be monitored and evaluated using a structured approach that emphasizes credible, actionable, and responsible data collection and analysis.

1.4.5.1 Technical Performance Metrics

- **AI Model Accuracy**: Measuring the precision and recall of AI models against established benchmarks
- **System Response Times**: Tracking the speed of AI systems in responding to user queries and processing data

- **Data Quality Measurements**: Monitoring data completeness, accuracy, and timeliness to ensure AI models have quality inputs

1.4.5.2 Business Impact Metrics

- **Process Efficiency Improvements**: Measuring reductions in processing time and manual effort
- **Cost Reduction**: Tracking direct cost savings from AI implementation
- **Revenue Enhancement for Pharo Ventures**: Assessing the impact of AI insights on investment returns
- **Project Effectiveness for Pharo Development**: Measuring improved resource allocation efficiency for development projects
- **User Adoption Rates**: Tracking the percentage of finance staff actively using AI tools

1.4.5.3 ROI Calculation Framework

- **Cost-Benefit Analysis**: Comparing implementation costs with quantifiable benefits
- **Value Realization Timeline**: Tracking when benefits are realized relative to investments
- **Success Criteria Definition**: Clear definitions of what constitutes success for each AI initiative

Drawing from the GMF's approach, the monitoring framework will incorporate both I-scores (implementation fidelity) and D-scores (design fidelity) to ensure that AI solutions are not only technically sound but also meeting user needs. As noted in the GMF, "While rigor is important, we recognize that timely recommendations are essential for enhancing program outcomes and driving future investments" (Pharo Foundation GMF, 2024).

1.5 Challenges and Ethical Considerations

Implementing AI in Pharo Foundation's finance function presents unique challenges given the organization's dual structure and multi-country operations in Africa. These challenges must be addressed proactively to ensure successful implementation and alignment with the Foundation's values.

1.5.1 Implementation Challenges

1.5.1.1 Data Quality and Integration Issues

Data challenges are particularly acute in the African context, where digital infrastructure may be limited:

- **Addressing Data Silos**: Pharo Development and Pharo Ventures currently operate with separate systems and data stores. As noted in the finance transformation strategy, creating "a unified financial system that integrates data from both non-profit and for-profit operations" is a key objective but presents significant technical challenges.
- **Standardizing Data Across Countries**: The Foundation operates across multiple African countries (Ethiopia, Kenya, Rwanda, and Somaliland), each with different financial systems and practices. Creating standardized data definitions and formats across these contexts will require significant effort.
- **Implementing Robust Data Governance**: According to Barros Pena et al. (2021), "Organizations implementing AI in emerging markets face significantly greater data governance challenges than those in developed economies." The Foundation will need to develop data governance frameworks that work across its diverse operational contexts.

To address these challenges, the AI strategy must include strong data governance components and phased implementation that prioritizes data quality improvement. As Thurman et al. (2019) note, "Without quality data, even the most sophisticated AI models will deliver limited value."

1.5.1.2 Change Management Hurdles

Cultural and organizational factors present significant challenges:

- **Managing Transition from Manual to AI-Assisted Processes**: The finance transformation notes highlight that "legacy workflows are hard to let go of" and users are "creatures of habit." Helping finance staff adapt to AI-enhanced workflows will require dedicated change management.
- **Building AI Literacy Across Diverse Teams**: There is a "finance knowledge gap between Kenya and other regions (Ethiopia, Rwanda and especially Somaliland)" noted in the finance transformation documentation. This disparity will need to be addressed through tailored training programs.
- **Ensuring User Acceptance and Engagement**: According to Edmondson (2019), psychological safety is essential for successful technology adoption. The Foundation must create an environment where finance staff feel safe experimenting with new AI tools.

Successful adoption will require a comprehensive change management strategy that includes clear communication, targeted training, and visible leadership support. As Florida (2012) suggests, "Today's knowledge workers cannot simply be ordered to adopt new technologies; they must be motivated to engage."

1.5.1.3 Technical Challenges

Implementing AI in African contexts presents specific technical challenges:

- **Connectivity Issues**: Many of the Foundation's operations are in areas with limited internet connectivity, which can impact cloud-based AI systems. Solutions must be designed with these constraints in mind.
- **Integration with Existing Systems**: The recent migration to Microsoft Dynamics Business Central presents both an opportunity and a challenge. As noted in the finance transformation notes, there are "no clear incompany data strategy" and "users [are] unsure of new requisition workflows."
- **Ensuring Solution Scalability and Reliability**: AI solutions must be designed to scale across the Foundation's operations while maintaining reliability in varied technical environments.

These technical challenges require careful planning and potentially hybrid approaches that combine cloud and edge computing technologies. As noted by Jung and Seiter (2021), "AI implementations in emerging markets often require adaptation of standard approaches to account for infrastructure limitations."

1.5.2 Ethical Implications

Implementing AI in finance also raises important ethical considerations that align with Pharo Foundation's values of integrity, excellence, and impact:

1.5.2.1 Fairness and Bias Considerations

- **Ensuring Cultural Appropriateness**: AI models must be evaluated for cultural appropriateness across the different African contexts where Pharo operates. Models trained primarily on Western data may not perform equally well in African contexts.
- **Addressing Potential Biases**: According to Shin (2022b), "AI models can perpetuate existing biases in financial decision-making if not carefully designed and monitored." The Foundation must implement bias detection and mitigation strategies.
- **Equitable Application**: AI benefits should be distributed equitably across Pharo's operations, ensuring that technology does not exacerbate existing inequalities between regions or between Development and Ventures arms.

These considerations require ongoing monitoring and adjustment of AI systems to ensure they support the Foundation's mission of fostering self-reliance across Africa.

1.5.2.2 Accountability Frameworks

- **Clear Responsibility Structures**: The Foundation must establish clear accountability for AI decisions, particularly those related to financial resource allocation or risk assessment.
- **Oversight Mechanisms**: Implementing governance structures that provide appropriate oversight of AI systems while maintaining operational efficiency.
- **Audit Procedures**: Developing procedures for regular auditing of AI systems to ensure they operate as intended and align with organizational values.

Shin et al. (2022) emphasize that "algorithmic transparency and accountability are especially important in contexts where technology adoption may outpace regulatory frameworks." This is particularly relevant in the African countries where Pharo operates.

1.5.2.3 Societal Impact

- **Effect on Workforce Roles and Skills**: AI implementation will change the nature of finance roles at Pharo Foundation. According to McKinsey (2023), "AI in finance functions typically shifts roles from transaction processing to analysis and decision support."
- **Alignment with Mission of Self-Reliance**: All AI implementations should ultimately support Pharo's mission of fostering self-reliance in Africa, ensuring technology builds rather than replaces local capacity.
- **Contribution to Sustainable Development Goals**: AI applications should be evaluated for their contribution to sustainable development in the regions where Pharo operates.

As Pharo Foundation aims to create "a vibrant, productive, and self-reliant Africa," AI implementation must be thoughtfully designed to enhance rather than diminish human capabilities. As noted by Longoni et al. (2019), "Technology implementations are most successful when they augment rather than replace human judgment and expertise."

1.6 Conclusion and Recommendations

Pharo Foundation stands at a pivotal moment in its finance transformation journey, with artificial intelligence offering powerful capabilities to enhance efficiency, improve decision-making, and strengthen governance. By strategically implementing AI across its finance functions, the Foundation can better support its mission of fostering a "vibrant, productive, and self-reliant Africa."

1.6.1 Key Strategic Recommendations

1. **Prioritize Data Foundation**: Before implementing advanced AI capabilities, ensure the Foundation has strong data governance, quality processes, and integration architecture. As noted by Shin (2022a), "The quality of AI outputs is directly dependent on the quality of data inputs."
2. **Take a Phased Approach**: Follow the three-phase implementation roadmap, starting with high-value, low-complexity use cases like document processing automation before progressing to more sophisticated applications. This approach aligns with best practices identified by Bloedorn et al. (2023) in the MITRE AI Maturity Model.
3. **Invest in People**: Complement technology investments with comprehensive training and change management to build AI literacy across the finance function. As Deci and Flaste (1995) emphasize, intrinsic motivation is essential for successful technology adoption.
4. **Ensure Cross-Entity Integration**: Design AI solutions that bridge Pharo Development and Pharo Ventures, supporting the Foundation's goal of a unified financial system that enables seamless data flow and coordination across entities, business units, and countries.
5. **Embed Ethical Considerations**: Integrate fairness, accountability, and alignment with Pharo's mission into all AI implementations, ensuring technology enhances rather than undermines the Foundation's values and goals.

1.6.2 Critical Success Factors

For successful AI implementation, the Foundation should focus on these critical factors:

- **Executive Sponsorship**: Active support from the CFO and Global Finance Lead to drive change and remove barriers
- **Cross-Functional Collaboration**: Close partnership between finance, IT, and program teams
- **User-Centered Design**: Development of AI solutions with continuous input from finance staff
- **Robust Governance**: Clear structures for decision-making, risk management, and ethical oversight
- **Continuous Learning**: Mechanisms to capture lessons learned and improve implementation approaches

1.6.3 Long-term Vision

By successfully implementing this AI strategy, Pharo Foundation can transform its finance function from a transaction-processing and reporting center to a strategic partner that provides data-driven insights to drive mission impact. AI-enhanced finance capabilities will support more efficient resource allocation, stronger risk management, and ultimately greater impact across Pharo's education, water, and productivity missions.

As the Foundation works to foster self-reliance in Africa, AI can serve as a powerful enabler, helping to optimize the use of resources, improve transparency, and strengthen decision-making. With thoughtful implementation that balances technological innovation with organizational and ethical considerations, Pharo Foundation can leverage AI to amplify its contribution to sustainable development across Africa.

References

Barros Pena, B., Clarke, R. E., Holmquist, L. E., & Vines, J. (2021). Circumspect users: Older adults as critical adopters and resistors of technology. *Proceedings of the CHI Conference on Human Factors in Computing Systems*.

Bloedorn, E. E., Kotras, D. M., Schwartz, P. J., Chaney, C., Chaney, C., & Patsis, J. (2023). *The MITRE AI maturity model and organizational assessment tool guide: A path to successful AI adoption*. MITRE.

Brynjolfsson, E., & Mitchell, T. (2017). What can machine learning do? Workforce implications. *Science*, *358*(6370), 1530–1534.

Castelo, N., Bos, M. W., & Lehmann, D. R. (2019). Task-dependent algorithm aversion. *Journal of Marketing Research*, *56*(5), 809–825.

Collins, C., Dennehy, D., Conboy, K., & Mikalef, P. (2021). Artificial intelligence in information systems research: A systematic literature review and research agenda. *International Journal of Information Management*, *60*, 102383.

Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, *96*(1), 108–116.

Deci, E. L., & Flaste, R. (1995). *Why we do what we do*. Penguin Books.

Edmondson, A. (2019). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. John Wiley & Sons.

Florida, R. (2012). *The rise of the creative class, revisited: Revised and expanded*. Basic Books.

Iansiti, M., & Lakhani, K. R. (2020). Competing in the age of AI. *Harvard Business Review*, *98*(1), 60–67.

Jung, M., & Seiter, M. (2021). Towards a better understanding on mitigating algorithm aversion in forecasting: An experimental study. *Journal of Management Control*, *32*, 495–516.

Kausel, E. E., Reyes, T., & Chacon, A. (2022). A longitudinal approach for understanding algorithm use. *Journal of Behavioral Decision Making*, *35*(4), e2275.

Lee, J. D., & See, K. A. (2004). Trust in automation: Designing for appropriate reliance. *Human Factors*, *46*(1), 50–80.

Longoni, C., Bonezzi, A., & Morewedge, C. K. (2019). Resistance to medical artificial intelligence. *Journal of Consumer Research*, *46*(4), 629–650.

Maedche, A., Legner, C., Benlian, A., Berger, B., Gimpel, H., Hess, T., Hinz, O., Morana, S., & Söllner, M. (2019). AI-based digital assistants. *Business & Information Systems Engineering*, *61*(4), 535–544.

McKinsey & Company. (2023). *The state of AI in early 2024: Gen AI adoption spikes and starts to generate value*.

McKinsey Technology. (2024). *A data leader's operating guide to scaling gen AI*.

Mikalef, P., & Gupta, M. (2021). Artificial intelligence capability: Conceptualization, measurement calibration, and empirical study on its impact on organizational creativity and firm performance. *Information & Management*, *58*(3), 103434.

Pharo Foundation. (2023). *About pharo foundation*. https://pharofoundation.org/our-story.

Pharo Foundation. (2024). *Global monitoring framework: An impact-driven approach to design, monitoring, and evaluation*.

Pharo Foundation Finance Transformation Strategy. (2024). *Internal strategic document*.

Shin, D. (2022a). Expanding the role of trust in the experience of algorithmic journalism: User sensemaking of algorithmic heuristics in korean users. *Journalism Practice*, *16*(6), 1168–1191.

Shin, D. (2022b). How do people judge the credibility of algorithmic sources? *AI & Society*, *37*(1), 81–96.

Shin, D., Lim, J. S., Ahmad, N., & Ibahrine, M. (2022). Understanding user sensemaking in fairness and transparency in algorithms: Algorithmic sensemaking in over-the-top platform. *AI & Society*, 1–14.

Strich, F., Mayer, A. S., & Fiedler, M. (2021). What do i do in a world of artificial intelligence? Investigating the impact of substitutive decision-making AI systems on employees' professional role identity. *Journal of the Association for Information Systems*, *22*(2), 304–324.

Thurman, N., Moeller, J., Helberger, N., & Trilling, D. (2019). My friends, editors, algorithms, and i. *Digital Journalism*, *7*(4), 447–469.