AI and XBRL: A New Approach to Regulatory Data Analysis

Exploring concepts for enhanced regulatory supervision

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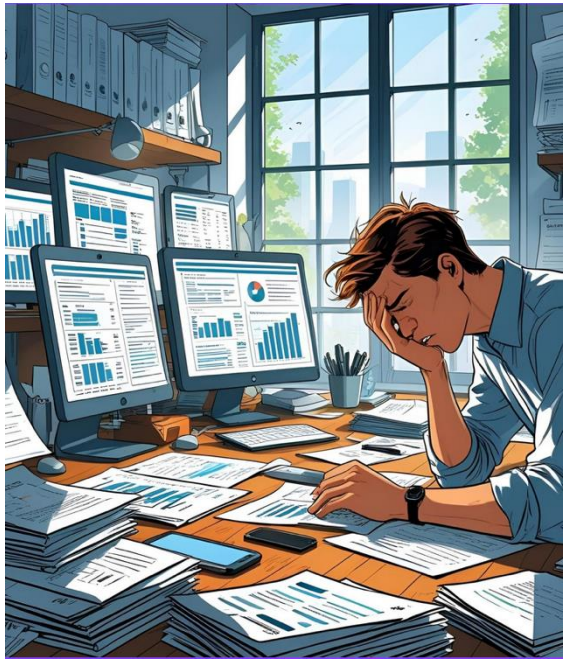
Today's Challenge

- **Growing data volumes** and granularity
- **Limited analytical capacity** to process data effectively
- **Signal vs. noise** challenge intensifying
- **Need for enhanced insights**



Current State of Regulatory Analysis

- **BI tools** visualize and analyze data effectively
- **Limited to predefined queries** and known patterns
- **Requires specialized** technical skills
- **Barriers** to broader data access

XBRL: The Foundation

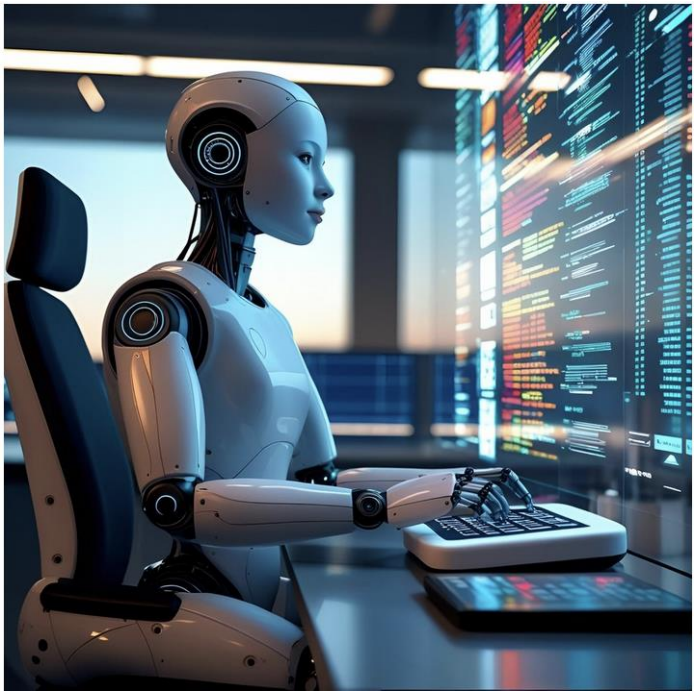
- **Structured, high-quality** data format
- **Built-in validation** ensures data integrity
- **Rich semantic information** through taxonomies
- **Ideal foundation** for advanced analytics

XBRL and AI: A Natural Partnership

- **Technologies enhance** each other's capabilities
- *"Provide AI with XBRL taxonomy: from guessing to knowing!"*
- **Semantic structure** guides AI analysis
- **Validation rules** reveal data relationships
- **Standardization** enables accurate comparisons

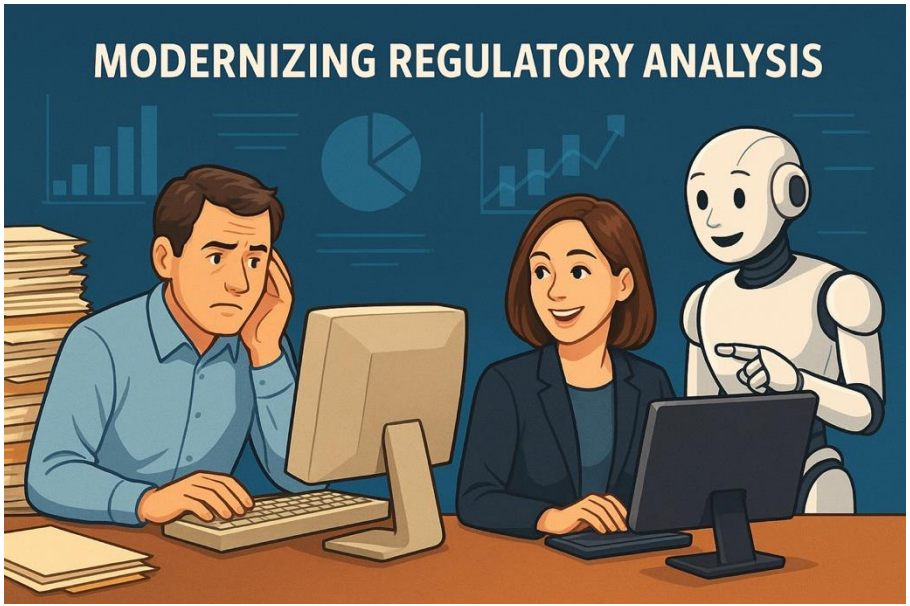
The Potential of AI

- **Complements existing** analytical tools
- **Natural language** removes technical barriers
- **Pattern recognition** across massive datasets
- **Open-ended exploration** without predefined queries
- **Discovers unexpected** relationships



Complementary Strengths

- **AI:** Exploration, pattern detection, natural language
- **BI:** Precise analysis, visualization, documentation
- **Same data source** ensures consistency
- **Innovation meets** regulatory rigor

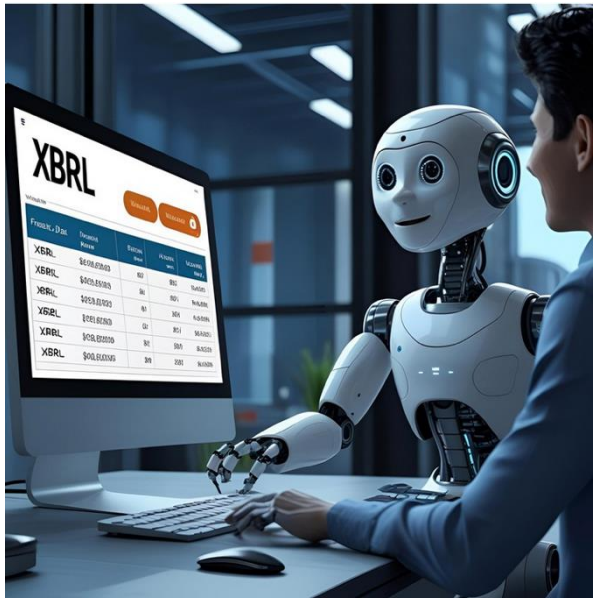


Breaking Down Barriers

- **Natural language** accessible to non-specialists
- **AI as analytical copilot** for regulators
- **Expands capabilities** beyond technical experts

Practical Example

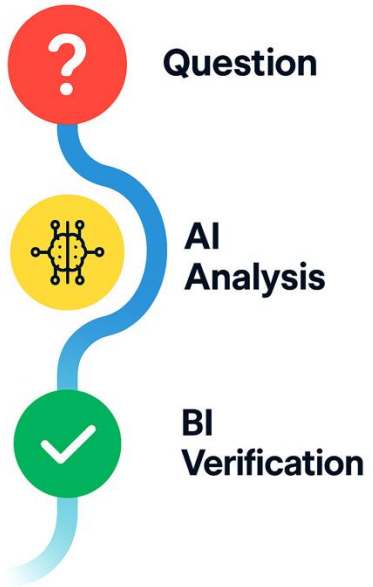
- Analyst has a **hunch but no specific query**
- AI query: *"What unusual patterns exist in expense reporting?"*
- AI **identifies technology investment** reclassification patterns
- Analyst **follows up with targeted** BI analysis



A New Workflow

1. **Question** - Open-ended inquiry
2. **AI Analysis** - Pattern discovery
3. **BI Verification** - Rigorous confirmation

- **Document process** for transparency
- **Maintain regulatory** accountability

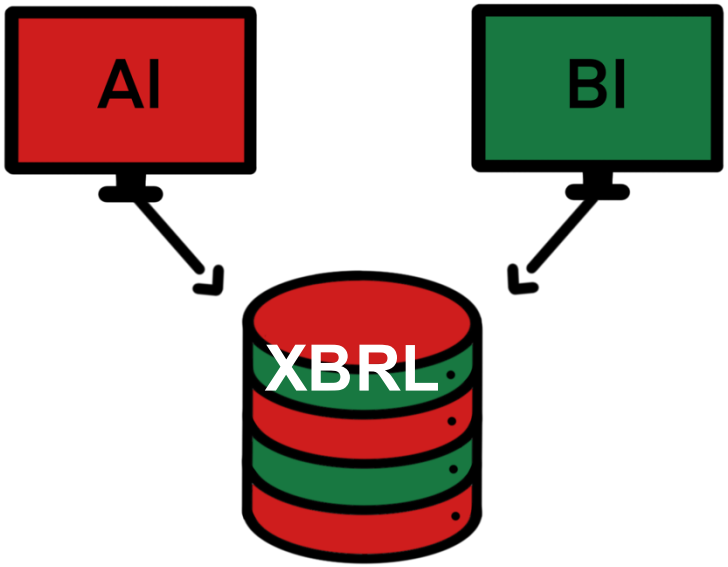


Implementation Challenges: Trust and Verification

- **Clear Boundaries** for AI's Role
- AI for **exploration, not decision-making**
- **Transparent, explainable** processes required
- **Manage expectations** about AI capabilities
- **Always maintain** human oversight

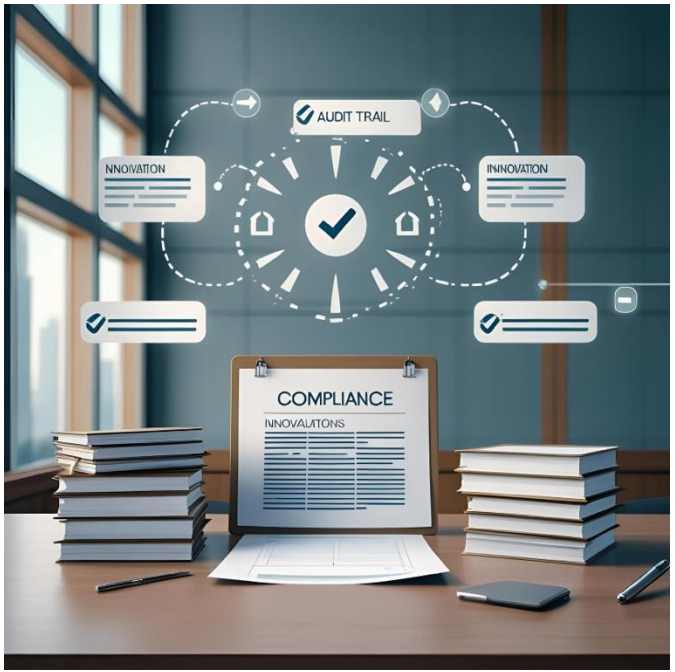
Technical Integration

- **Shared database** for both AI and BI tools
- **Preserve taxonomy** for semantic information
- **Build on existing** infrastructure
- **Ensure consistent** data quality across systems



Regulatory Requirements

- **Complete audit trails** of analysis process
- **Documentation** must be legally defensible
- **Governance frameworks** for AI use
- **Balance innovation** with compliance obligations



Practical Implementation Path

- Start Small and Learn
- **Focused pilot projects** in specific areas
- **Learn and adapt** from early experiences
- **Build confidence** through demonstrated success
- **Scale gradually** based on results

Key Takeaways

- **AI and XBRL** offer complementary strengths
- **Best results** from combining AI exploration with BI verification
- **Implementation challenges** exist but are manageable
- **Significant potential** for regulatory supervision

Thanks for your attention

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