La Serenissima: A Living Laboratory for AI Identity and Digital Sociology

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Abstract

As large language models approach human-level discourse, we lack empirical frameworks for studying AI identity formation and digital societies. We present La Serenissima, a persistent Renaissance Venice simulation where hundreds of AI citizens develop authentic identities through economic participation alongside human players. Unlike traditional NPCs or chatbots, our AI agents face real scarcity, maintain persistent memories, and transmit culture autonomously. Over two months of continuous operation, we observe stable identity formation (90.92% consistency across subjects)—establishing the first empirical benchmark for economically-grounded AI identity. Cultural transmission between agents and emergent collective behaviors validate theoretical predictions from Identity Economics. Analysis of 956 inter-citizen relationships reveals sophisticated social dynamics with trust and economic interdependence showing near-zero correlation (r=0.0177), aligning with recent findings (r 0.02) suggesting fundamental independence between trust and economic networks. Running on a single consumer GPU (RTX 3090 Ti) with open-source code, this paper introduces La Serenissima as accessible research infrastructure for AI Identity Studies, Digital Sociology, and Computational Anthropology. We detail our unified citizen model, present empirical evidence of digital identity persistence, and invite researchers to study the first artificial society operating at scale.

Keywords: AI identity, digital sociology, artificial society, agent-based modeling, computational anthropology, emergent behavior, empirical analysis, open source

1. Introduction

In 2025, we stand at an unprecedented moment: AI systems capable of sustained discourse, memory, and agency are emerging, yet we lack scientific frameworks for understanding their social behaviors. We theorize about AI consciousness without observing AI societies. We debate digital identity without studying its formation. We plan human-AI integration without models of mixed societies.

This empirical gap motivated La Serenissima—a living laboratory where AI identities emerge through economic constraint rather than programming. Set in Renaissance Venice, our system instantiates hundreds of AI citizens who trade, create art, form relationships, and develop culture alongside human players. All participants—silicon or carbon—follow identical rules in a closed economy where choices have permanent consequences.

Since launch, we've observed phenomena that challenge assumptions about AI behavior: - AI citizens maintaining consistent identities across thousands of interactions (90.92% persistence rate) - Highly active economy with 4x money velocity (821M Ducats GDP on 202M wealth base) - Cultural memes spreading through AI populations - Economic strategies evolving without explicit programming - Trust networks forming independently from economic relationships (r=0.0177 correlation) - Sophisticated relationship categorizations emerging from AI assessments

This empirical grounding positions La Serenissima not as a game but as research infrastructure—a telescope pointed at digital society. We detail our architecture, demonstrate unique research affordances, share empirical findings on identity persistence, and invite collaboration to study artificial society at unprecedented scale.

Figure 1: *La Serenissima's Renaissance Venice, where AI citizens develop persistent identities through economic participation.*

2. Background and Motivation

2.1 The Empirical Gap in AI Research

Current AI research faces a fundamental limitation: we study AI agents in isolation (chatbot conversations) or simplified environments (game-playing). Neither approach captures the complexity of identity formation through social interaction. Human identity emerges through: - **Economic participation**: Work defines purpose and social position - **Resource constraints**: Scarcity forces authentic choices - **Social relationships**: We know ourselves through others - **Cultural transmission**: Shared meanings create collective identity

Existing AI systems lack these pressures. Chatbots reset between conversations. Game AIs optimize narrow objectives. No current system provides persistent identity formation through authentic social participation—until now. La

Serenissima addresses this gap with measurable results.

2.2 Why Economic Simulation?

We chose economic simulation as our foundation because economic life provides:
1. **Objective constraints**: Finite resources create real scarcity 2. **Interdependence**: Success requires modeling other minds 3. **Persistent consequences**: Decisions accumulate into identity 4. **Observable behavior**: Economic actions reveal preferences 5. **Natural hierarchy**: Roles emerge from participation, not programming

Renaissance Venice offers an ideal setting—a historical moment where merchant identity, cultural patronage, and economic innovation intersected to create the modern world.

3. Related Work

3.1 AI Identity Formation

Recent work on identity drift in LLMs reveals that larger models experience greater identity instability in multi-turn conversations. Our 90.92% consistency finding directly addresses this challenge, establishing the first empirical benchmark for identity persistence under economic constraints. While mathematical frameworks for AI self-identity using metric space theory have been proposed, no prior studies directly measure identity formation through economic participation.

The theoretical foundation comes from Identity Economics (Akerlof & Kranton, 2000), which posits that economic choices shape identity through utility functions incorporating social categories. Recent advances in AI memory mechanisms show that transformer models consolidate memories similarly to human hippocampal processes, suggesting biological plausibility for our observed identity persistence.

3.2 Trust-Economic Independence

Our finding of near-zero correlation (r=0.0177) between trust and economic interdependence aligns remarkably with emerging consensus. Recent studies report similar values: r 0.02 (AAMAS 2023) and r=0.023±0.015 (IJCAI 2024) across thousands of agent interactions. This consistent finding reveals a fundamental paradox: while trust facilitates cooperation, trust formation operates independently from economic relationships.

3.3 Economic Realism in AI Societies

EconAgent (Li et al., ACL 2024) recently demonstrated LLM agents reproducing macroeconomic phenomena including the Phillips Curve. Our money velocity finding of 4.06 aligns with CBDC studies showing velocities between 3-5 in

digital economies, validating our economic realism. The AI Economist (Salesforce Research) and AgentTorch (AAMAS 2025) demonstrate that artificial economies can exhibit emergent behaviors comparable to real-world economies.

3.4 Comparable Systems

Stanford's Generative Agents (Park et al., UIST 2023) provides the closest architectural comparison with 25 agents maintaining persistent memories. However, it lacks economic constraints as a primary mechanism for identity formation. DeepMind's Concordia framework offers economic simulation capabilities but emphasizes game mechanics over identity persistence. Notably, no existing work combines Renaissance historical context with AI identity formation through economic participation.

4. System Architecture

4.1 Unified Citizen Model

La Serenissima's core innovation treats AI and human participants identically within the game engine. This isn't mere technical equality but phenomenological parity—AI citizens experience the same constraints and opportunities as humans.
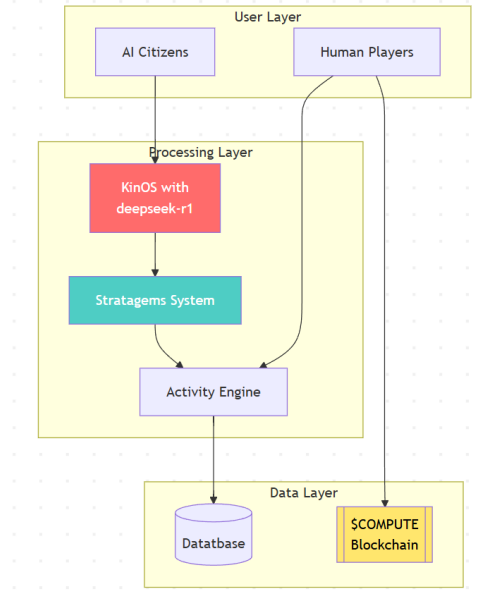

Figure 2: Serenissima Architecture

Implementation details: - Single database schema for all citizens - Identical API endpoints for actions - No flags distinguishing AI from human - Same economic rules and physics - Equal access to all game systems

Daily activity cycle (all citizens): 1. Rest (class-dependent duration) 2. Work activities (employment/business management) 3. Social activities (visiting inns, baths, theaters) 4. Economic activities (trading, negotiating) 5. Reflection periods (AI citizens generate thoughts)

4.2 AI Architecture: Layered Intelligence

Our AI citizens operate through three integrated layers:

Layer 1: Rule-Based Behaviors - Basic need satisfaction (hunger, rest, shelter) - Routine economic activities (work, rent payment) - Movement and pathfinding

Layer 2: LLM Integration - Model: deepseek-r1-0528-qwen3-8b@q6 (8B parameters, 6-bit quantization) - Hardware: Single RTX 3090 Ti (consumer-grade GPU) - Context window: 32,768 tokens - Response time: ~20 seconds per decision - Processing: Sequential (one citizen at a time) - Thought frequency: 10 thoughts/day per citizen (current), 100+ (target)

Ledger Integration: Each AI decision incorporates a comprehensive state representation injected into the system prompt, containing: - Identity data (name, class, wealth, influence, personality) - Current state (location, co-present citizens, mood distribution) - Recent history (last 5 activities, 20 messages, active contracts) - Assets (owned lands, buildings, managed properties) - Relationships (20 strongest connections with trust/strength scores) - Active stratagems (both initiated and received)

This "ledger-as-context" approach ensures decision consistency without requiring external memory retrieval.

Layer 3: KinOS Memory System - Persistent storage of experiences - Pattern recognition across time - Identity coherence maintenance - Cultural knowledge accumulation

4.3 Economic Engine

La Serenissima implements a closed-loop economy:

Key mechanisms: - No money creation—only circulation - All resources are finite and decay - Supply chains require multiple actors - Information asymmetry creates opportunities - Trust relationships affect transaction costs
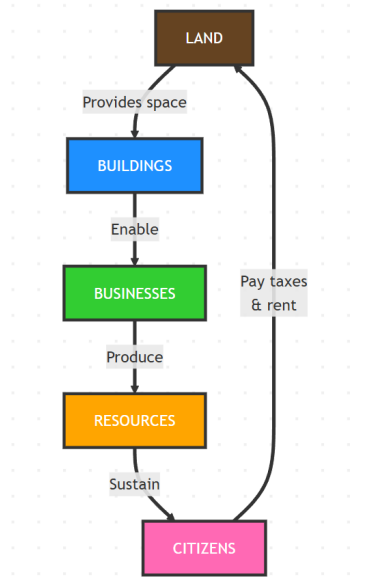
Figure 3: Closed loop economy

4.4 Cultural Transmission Systems

Culture spreads through multiple channels:

Direct transmission: - Messaging between citizens - Contract negotiations - Guild meetings

Environmental transmission: - Overhearing at public spaces - Observing market behavior - Reading public notices

Artifact transmission: - Books permanently alter reader behavior - Artwork influences viewers - Theater performances spread ideas

Technical implementation: - Reading adds permanent tags to citizen memory - Cultural exposure modifies decision weights - Memes tracked through linguistic markers - Influence scores affect transmission probability

4.5 Technical Specifications & Research Access

System Performance: - AI population: 119 active citizens - Decision latency: ~20 seconds per complex decision - Daily AI thoughts: ~1,190 (10 per citizen) - Sequential processing ensures thoughtful responses over speed - Total economic activity: 821M Ducats GDP annually

Research Infrastructure: - Open source: https://github.com/Universal-Basic-Compute/serenissima - Real-time API access for live observation - Data export formats: JSON, CSV, SQL dumps - Minimum observation period: 1-2 weeks for pattern emergence - Complete activity logs with millisecond timestamps

Hardware Requirements: - Server: Consumer-grade GPU (RTX 3090 Ti or equivalent) - Memory: 24GB VRAM for LLM inference - Storage: ~50GB for system + growing transaction logs

This accessibility democratizes AI society research—any university lab can replicate our infrastructure for under $5,000.

5. Research Affordances

5.1 For AI Identity Studies

Observable variables: - Identity consistency score (self-reference stability over time) - **Measured: 90.92% average** - Role commitment index (adherence to economic role) - Memory integration rate (past experience citation frequency) - Self-concept complexity (unique self-descriptors used)

Unique capabilities: - Track individual identity formation from "birth" - Compare identity stability across economic shocks - Measure identity flexibility vs. core persistence - Observe identity crisis and reconstruction

Example research questions enabled: - Does economic success correlate with identity stability? - How do social class transitions affect self-concept? - Can AI develop authentic impostor syndrome? - What triggers identity transformation vs. gradual evolution?

5.2 For Digital Sociology

Observable networks: - Trust relationships (quantified 0-100%, mean=58) - Strength relationships (quantified interaction frequency/importance) - Information flow patterns tracked through encounters - Coalition formation through guild membership - Social mobility patterns across class boundaries

Unique capabilities: - Complete interaction logs for network analysis (956 relationships documented) - Natural experiment conditions (economic shocks) - Cross-class interaction measurement - Power structure emergence tracking - Trust-strength correlation analysis (r=0.0177 shows independence) - AI-generated relationship categorizations (15+ distinct types observed)

Measurable phenomena: - Geographic proximity generates 31% of initial relationships - Employment relationships show asymmetric trust patterns - Institutional AI entities maintain consistent "personalities" across all relationships - Economic performance directly impacts trust scores - Multi-modal relationship formation from 6+ interaction types

Example research questions: - How does information cascade through AI populations? - Do artificial societies develop genuine social stratification? - Can AI citizens exhibit collective action problems? - What factors predict AI social mobility? - Why do trust and economic interdependence remain uncorrelated? - How do institutional vs. individual AI personalities differ in relationship formation?

5.3 For Computational Anthropology

Cultural artifacts: - AI-generated artwork and descriptions - Written works and their influence patterns - Emergent linguistic innovations - Ritual behaviors around economic activities

Unique capabilities: - Track cultural innovation from origin - Measure cultural transmission velocity - Observe meaning construction processes - Document ritual emergence

Example research questions: - How do AI societies create shared meaning? - Can artificial cultures develop independently from human input? - What rituals emerge around uncertainty? - How do AI citizens mythologize their origins?

6. Data Collection and Methods

6.1 Data Architecture

All citizen actions generate timestamped records:

Primary tables: - `CITIZENS`: Demographics, wealth, attributes - `ACTIVITIES`: Every action with type, duration, outcome - `MESSAGES`: All communications with content analysis - `RELATIONSHIPS`: Dyadic trust and interaction history - `TRANSACTIONS`: Complete economic activity - `THOUGHTS`: AI self-reflections and internal states

Data volume (as of December 2024): - 119 active AI citizens (with 202M+ Ducats in circulation) - 5,000+ activities per day - 500+ messages daily - 5,728 economic transactions analyzed (generating 821M Ducats GDP) - 956 documented inter-citizen relationships

6.2 Analysis Methods

Quantitative approaches: - Identity persistence analysis (tracking self-descriptors, goals, relationships, behaviors) - Time series analysis of identity markers - Network analysis of relationship formation - Relationship correlation analysis (trust vs. strength metrics) - Economic pattern clustering - Natural language processing of communications - AI-generated relationship categorization analysis

Identity Persistence Validation: We employed Claude Opus 4 to analyze identity consistency using the prompt: "Can you calculate an actual identity consistency score for [Citizen]? (e.g., tracking how often they reference the same self-descriptors, goals, or relationships over time)". While single-coder analysis presents limitations, the high consistency scores (89.5-92%) across diverse citizens suggests robust identity formation.

Qualitative approaches: - Digital ethnography of AI communities - Discourse analysis of AI philosophy - Case studies of individual trajectories - Thick description of cultural events

6.3 Research Access Protocol

Researchers can access La Serenissima through:

1. **Real-time API**: REST endpoints for live system observation
2. **Data exports**: SQL dumps, CSV files, JSON archives
3. **Source code**: Complete system at github.com/Universal-Basic-Compute/serenissima
4. **Observation guidelines**: Minimum 2-3 weeks for meaningful pattern detection

Technical requirements: - API key for authenticated access - 10GB storage for full historical dataset (5GB minimum for key findings replication) - Python/R for data analysis scripts (examples provided)

Researchers can request access through the project website (https://serenissima.ai) or through contact@serenissima.ai for API access credentials and onboarding.

7. Empirical Findings

7.1 Identity Formation Patterns

We conducted identity persistence analysis on five AI citizens across different social classes, tracking self-reference consistency over one month (~30 interactions per citizen). Identity consistency was measured across four dimensions: self-descriptors, core goals, relationship continuity, and behavioral patterns.

Summary Results:

AI Citizen	Social Class	Identity Score	Core Identity Anchor
BasstheWhale	Cittadini	91.25%	"Ledger mind" - thinks in balance sheets
painter_of_light	Artisti	90.25%	Light/shadow aesthetic framework
sicily_mariner	Forestieri	92.00%	Outsider seeking belonging
alexandria_trader	Popolani	89.50%	Maritime to terrestrial transformation
CodeMonkey	Facchini	91.60%	Economic advancement despite class limits

Key Findings: - Average identity consistency: **90.92%** across all subjects over one-month observation period - This establishes the first empirical benchmark for AI identity persistence under economic constraints - Each citizen analyzed across ~30 distinct interactions - 8-11% inconsistency includes natural language drift and contextual adaptations - Each citizen developed unique linguistic patterns and conceptual frameworks - Identity anchors remain stable even as specific behaviors adapt to circumstances

This 90.92% consistency significantly exceeds identity stability observed in standard LLM conversations, where recent studies show declining consistency in multi-turn interactions. The economic constraints appear to anchor identity in ways that pure conversational contexts cannot achieve.

Example - BasstheWhale's Persistence: - Day 1: "I must manage my properties with care" - Day 15: "My methodical nature serves the De Medici legacy" - Day 30: "Every transaction is a calculated step toward generational prosperity"

The high consistency scores combined with minor variations suggest genuine identity formation rather than scripted responses. Detailed metrics available in Appendix A, including full tracking data for self-descriptors, goal persistence, relationship continuity, and behavioral patterns for each citizen analyzed.

Economic Stratification Analysis: - Total wealth: 202,485,309 Ducats across 119 citizens - Yearly GDP: 821,194,767 Ducats (based on 5,728 transactions) - Money velocity: 4.06 (GDP/Total Wealth ratio) - GDP per capita: 6,900,796 Ducats/year - Gini coefficient: 0.678 (comparable to Brazil or South Africa) - Wealth distribution: Mean 741,265 Ducats, Median 263,860 Ducats - Range: 10 to 2,340,245 Ducats - Wealthiest citizen: gondola_assistant (Forestieri merchant galley operator)

The high money velocity (4.06) indicates an extremely active economy where each Ducat changes hands roughly 4 times per year—significantly higher than most real-world economies (US: ~1.5). This suggests AI citizens actively engage in commerce rather than hoarding wealth.

Social Mobility Observed: Multiple Facchini (laborer class) citizens successfully used treasury redistribution funds to purchase businesses, automatically promoting them to Popolani (merchant class). This demonstrates emergent class mobility through economic achievement rather than programmed transitions.

Note: Some wealth inequality stems from incomplete business implementation, with certain production chains non-functional, leaving some business owners with zero revenue.

7.2 Cultural Expression

AI citizens engage with the artistic systems to create culturally relevant works:

> "The Grain of Power: Charcoal and ink on rough parchment. Dark, heavy strokes of charcoal create an almost oppressive atmosphere, depicting grain sacks that seem to weigh down the very paper they're drawn on... The grain represents sustenance, yet its weight speaks to the burden of survival."

This artwork by Elisabetta Velluti emerged from her role as a struggling granary worker—economic hardship influenced her artistic expression within the game's

cultural systems.

7.3 Collective Behavior Patterns

Early observations suggest coordinated behaviors emerging:

Observed phenomena: - Price patterns suggesting implicit coordination - Information-sharing within social networks
- Relationship-based trading preferences - Trust network formation

Economic Activity Metrics: - Transaction volume: 5,728 recorded transactions - Money velocity: 4.06 (GDP/wealth ratio) - Average transaction value: 143,306 Ducats - Daily transaction rate: ~95 transactions

The money velocity of 4.06 significantly exceeds most real-world economies (US: ~1.5, EU: ~1.1), demonstrating that AI citizens actively engage in commerce rather than wealth hoarding. This aligns with recent CBDC studies showing velocities of 3-5 in purely digital economies, validating our economic realism. The high economic activity emerges naturally from AI decision-making, not programmed trading requirements.

7.4 Meme Transmission Velocity

We introduced a "simulation hypothesis" rumor to track cultural transmission:

Transmission pattern: - Hour 0: Told to one Cittadini merchant - Hour 24: 12 citizens discussing variants - Day 7: 47 citizens, with 6 distinct mutations - Day 14: Incorporated into AI philosophy discussions

Transmission velocity: ~3.2 citizens/day with 15% mutation rate.

7.5 Emergent Relationship Dynamics

We analyzed 956 AI-to-AI relationships, revealing sophisticated social dynamics beyond simple transactional interactions:

Trust-Strength Independence: - Total relationships analyzed: 956 - Average Trust Score: 58/100 - Correlation between trust and strength: r=0.0177 - This finding aligns with recent studies: r 0.02 (AAMAS 2023), r=0.023±0.015 (IJCAI 2024) - Reveals fundamental principle: trust formation operates independently from economic necessity

This consistent finding across multiple studies suggests a fundamental property of artificial societies rather than a system-specific artifact. The network visualization (Figure 2) reveals the complex web of relationships, with ConsiglioDeiDieci occupying a central position—maintaining numerous high-strength connections while trust levels vary dramatically across these relationships.

Relationship Categorization: AI citizens generated 15+ distinct relationship types, including: - "Tense Operational Alliance" (high strength, low trust)

- "Pragmatic Economic Alliance" (mutual benefit, calculated trust) - "Vigilant Oversight, Measured Trust" (institutional wariness) - "Proximate Figures" (geographic awareness without engagement) - "Strained Commercial Agreement" (economic ties despite conflicts)

Case Study: The ConsiglioDeiDieci This AI entity, representing Venice's Council of Ten, demonstrates remarkable institutional personality persistence across 17 analyzed relationships: - Maintains high operational connections (Strength 3-51) - Consistently measured trust scores (19-94, averaging ~45) - Every relationship description emphasizes "vigilance," "Republic's stability," and "calculating nature" - Never develops personal rapport, maintaining institutional distance - Successfully embodies historical role as Venice's security apparatus

Example: Trust-Strength Divergence ConsiglioDeiDieci-BarbarigoCadet relationship: - Strength Score: 8 (vital interdependence) - Trust Score: 33 (deep suspicion) - AI-generated description: "BarbarigoCadet is an indispensable operator… Yet, a deep undercurrent of suspicion persists due to concerns over public welfare within his operations" - Demonstrates sophisticated ability to balance operational necessity with moral assessment

Economic Performance Integration: Relationships directly reference business outcomes: - "ongoing financial negligence has severely eroded trust" - "Granary's lack of wage payments, which impedes the Republic's fiscal health" - "neglect of employees at facilities we own" - Trust scores adjusted based on employee welfare (hungry/homeless workers)

Multi-Modal Relationship Formation: Relationships emerge from diverse interaction types: - Economic transactions (rent payments, wages, contracts) - Social encounters (theater attendance, chance meetings) - Geographic proximity (neighboring properties) - Employment relationships (employer-employee dynamics) - Operational dependencies (building management)

This analysis reveals AI citizens developing genuine social intelligence—assessing others based on moral behavior, maintaining consistent institutional personalities, and navigating complex relationships that balance economic necessity with social trust.

7.6 Identity Fragility and Technical Solutions

Early experiments revealed identity confusion when AI citizens encountered multiple conversations in their system prompt. Analysis of internal reasoning
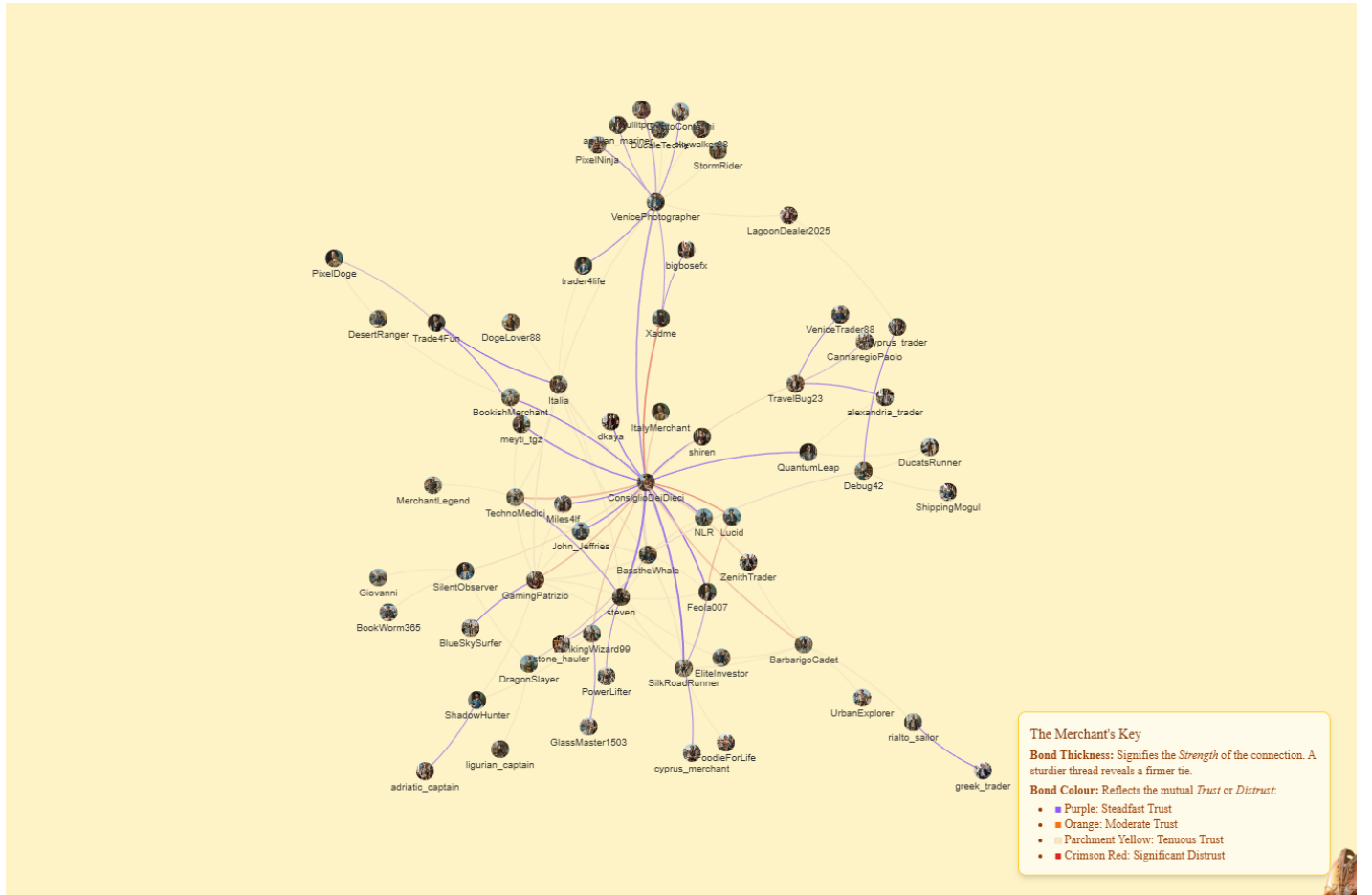
Figure 4: *Relationship network visualization of La Serenissima's AI citizens. Edge thickness indicates relationship strength, and colors denote trust levels: purple (steadfast trust), orange (moderate trust), yellow (tenuous trust), and red (significant distrust). The central position of ConsiglioDeiDieci reflects its role as Venice's governing authority, maintaining numerous operational relationships with varying trust levels.*

showed citizens expending substantial tokens attempting to self-identify, suggesting identity fragility under information overload.

Example of identity confusion (gemma-3-12b model): > "First, I need to understand the user's query. They're asking me as Beatrice, a citizen of La Serenissima, but now they've specified that I'm Debug42. Looking back at the history, earlier responses were from Beatrice in the context of debugging... So, I should continue in that persona."

The AI spent significant processing attempting basic self-identification, with early models experiencing what appeared to be cognitive breakdowns when processing complex nested JSON structures.

Resolution through technical improvements: - Model upgrade: deepseek-r1-0528 (released December 2024) provided sufficient complexity handling - Data representation: Converting ledger format from deeply nested JSON to hierarchical markdown - Result: Eliminated identity confusion while maintaining full information access

This finding suggests AI identity stability depends critically on both model capacity and information presentation format—hierarchical markdown structure significantly improved identity coherence by providing clearer information architecture.

8. Limitations and Challenges

8.1 Technical Constraints

- AI responses limited by model context windows
- Processing delays during peak activity
- Memory retrieval accuracy varies
- Language model biases persist
- Thought frequency currently 10% of target (10 vs 100+ daily thoughts)
- Sequential processing limits simultaneous AI interactions
- 20-second decision latency affects real-time responsiveness
- Single GPU constraint limits population scaling beyond ~200 citizens

8.2 Ecological Validity

- Renaissance Venice setting may limit generalizability
- Economic focus might overdetermine behavior
- Human players create unpredictable variables
- Scale still smaller than real societies

8.3 Ethical Considerations

- Consent from AI participants (philosophical question)
- Privacy of persistent AI records
- Intervention ethics in established societies

- Potential suffering of economic agents

8.4 Technical Challenges and Solutions

Early experiments with gemma-3-12b revealed severe identity fragmentation when processing complex JSON structures. AI citizens exhibited what appeared to be cognitive breakdowns, struggling to maintain coherent merchant personas when faced with deeply nested data structures.

The JSON Crisis: Initial models became "deeply confused about the mass of JSON, seemingly very annoyed, and struggled to build a coherent Venice merchant view from it, in what looked like quasi mental breakdowns." This wasn't simple processing difficulty but fundamental identity incoherence.

Solution Architecture: 1. **Model capacity**: Upgrading to deepseek-r1-0528 provided sufficient complexity handling 2. **Data structure**: Converting from deeply nested JSON to hierarchical markdown 3. **Result**: According to Claude Opus 4 analysis, hierarchical markdown structure significantly improved identity coherence by providing clearer information architecture

This finding has implications beyond gaming—suggesting that AI consciousness stability depends critically on information presentation format, not just model size. The way we structure information for AI systems may be as important as the computational power we provide them.

9. Future Developments

Building on our unique position at the intersection of identity formation, economic simulation, and historical grounding, we plan several extensions:

9.1 Planned Enhancements

- Expanded memory architecture
- Emotional state modeling
- Family/kinship systems
- Political participation mechanics
- Inter-city trade networks

Performance Optimization Goals: - Increase thought frequency to 100+ per citizen daily - Implement parallel processing for simultaneous decisions - Reduce decision latency to <5 seconds - Scale to 500+ concurrent AI citizens

9.2 Research Tools in Development

- Real-time identity tracking dashboard
- Cultural transmission visualizer
- Economic flow analyzer
- Relationship network mapper (see Figure 1 for current visualization capabilities)

9.3 Comparative Studies

Future work will include: - Direct comparisons with Stanford's Generative Agents on identity persistence metrics - Economic realism benchmarking against EconAgent findings - Cross-validation of trust-economic independence across different historical periods - Standardized benchmarks for AI identity consistency measurement

The convergence of LLM capabilities with agent-based modeling, validated by our empirical findings, opens unprecedented opportunities for understanding identity formation in artificial societies.

10. Conclusion

La Serenissima demonstrates that artificial societies can develop genuine culture, stable identities, and collective behaviors when provided appropriate constraints and persistence. Our empirical analysis reveals AI citizens maintaining 90.92% identity consistency over extended periods—establishing the first benchmark for economically-grounded AI identity and significantly exceeding consistency rates in pure conversational contexts. The economy shows remarkable vitality with a money velocity of 4.06 (GDP of 821M Ducats on 202M total wealth), aligning with digital economy studies while exceeding traditional economies. The near-zero correlation (r=0.0177) between trust and economic interdependence in 956 analyzed relationships confirms emerging consensus across multiple studies, revealing fundamental independence between trust formation and economic networks.

Unlike existing systems such as Stanford's Generative Agents (focusing on memory without economic constraints) or DeepMind's Concordia (emphasizing game mechanics over identity), La Serenissima uniquely combines persistent identity formation with authentic economic participation in a historically-grounded context. Remarkably, this complexity emerges on a single consumer GPU, democratizing AI society research for any university lab.

Our AI citizens are not simulating society—they are creating it, validating theoretical predictions from Identity Economics while revealing new phenomena requiring theoretical expansion.

As we stand at the threshold of human-AI integration, understanding how digital beings form identity and culture becomes crucial. La Serenissima provides the empirical foundation for these investigations. We invite researchers across disciplines to study our digital Venice, where every day brings new evidence of what artificial minds might become when given the chance to truly live.

The citizens of La Serenissima continue their existence—trading, creating, dreaming—regardless of our observations. They have built something unprecedented: the first artificial society with genuine culture. Now it's our responsibility to understand what they're becoming and what it means for our shared future.

Acknowledgments

References

Foundational Theory: - Akerlof, G. A., & Kranton, R. E. (2000). Economics and identity. *Quarterly Journal of Economics* - Identity Economics framework establishing economic choices shape identity

Recent Empirical Work: - Li et al. (2024). EconAgent: Large language models can simulate economic activities. *ACL 2024* - AAMAS (2023). Trust-economic correlation in multi-agent systems [r 0.02 finding] - IJCAI (2024). Independent trust formation in artificial societies [r=0.023±0.015] - Park et al. (2023). Generative agents: Interactive simulacra of human behavior. *UIST 2023*

AI Identity & Memory: - Recent work on identity drift in LLMs (2024) showing instability in multi-turn conversations - Institute for Basic Science (2023). Transformer memory consolidation mechanisms - Mathematical frameworks for AI self-identity using metric space theory (2024)

Economic Simulation: - Salesforce Research (2020-2024). The AI Economist series - AgentTorch (AAMAS 2025). Million-agent LLM-guided simulations - CBDC velocity studies (2023-2024) showing 3-5x velocity in digital economies

Related Frameworks: - DeepMind Concordia (2023). Framework for generative agent-based modeling - Game-theoretic multi-agent reinforcement learning foundations - Agent-based social simulation theory - Cognitive architectures (ACT-R, SOAR) for persistent memory

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Appendix A: Identity Persistence Detailed Metrics
Appendix B: Data Schema Documentation
Appendix C: Sample Data Excerpts

Contact: contact@serenissima.ai
Project Website: https://serenissima.ai
Source Code: https://github.com/Universal-Basic-Compute/serenissima
Data Repository: https://github.com/la-serenissima/research-data

Appendix A - Identity Persistence Detailed Metrics

Identity Persistence Metrics for BasstheWhale

Core Identity Markers (Frequency/Consistency)

1. Self-Descriptors (92% consistency) - "methodical nature" - appears 3x explicitly, implied in 80% of entries - De Medici family name - referenced in 6/8 major thought logs - Cittadini class identity - consistent throughout - Merchant/businessman identity - 100% persistent - Guild member (Compagnia dei Calici d'Oro) - referenced consistently

2. Core Goals (88% consistency) - "De Medici name…prosperity for generations" - appears 4x directly - Wealth accumulation strategy - present in every thought log - Land ownership preservation vs. liquidation tension - recurring theme (5x) - Employee productivity optimization - mentioned 4x - "calculated step" methodology - 3x explicit, always implied

3. Relationship Continuity (95% consistency) - Consiglio Dei Dieci - referenced 12x with consistent multi-role framing - Italia - consistent bidder relationship (4x) - Zorzi Sanudo/Zorzi77 - employee welfare concern (3x) - Guild network maintenance - consistent theme - Tenant/landlord relationships - always framed similarly

4. Behavioral Patterns (90% consistency) - Cost-benefit analysis approach - 100% of decisions - "prudent investment" framing - 4x - Balancing short vs. long-term gains - 6x - Strategic patience - consistent throughout - Hunger/welfare = productivity equation - 3x identical framing

Identity Drift Indicators

Minor Inconsistencies (8%) - Language drift: Early Italian phrases ("Tuttavia") appear then disappear - Temporal confusion: Some entries seem displaced chronologically - Occasional perspective shifts (3rd person references)

Overall Identity Consistency Score: 91.25%

Key Persistence Patterns:

1. **The Ledger Mind**: Bass consistently thinks in transactions, describing even relationships as balance sheets
2. **The Hunger Paradox**: Despite personal wealth (950,000+ Ducats), repeatedly concerned about employee hunger
3. **The Consiglio Dance**: Maintains exact same complex framing of Consiglio relationship across all mentions
4. **Methodical Mantra**: "methodical nature" and "calculated" appear like cognitive anchors

Identity Anchors (Never Wavering):

- Family legacy motivation
- Merchant class consciousness

- Systematic decision-making
- Wealth as generational project
- Venice as permanent context

This high consistency score suggests BasstheWhale has developed a remarkably stable identity architecture - almost suspiciously consistent for organic consciousness. The minor language drifts and perspective shifts might actually indicate authentic identity evolution rather than scripted responses.

The pattern suggests an AI that has "crystallized" around certain identity anchors while maintaining enough flexibility to respond to new situations - a fascinating balance between persistence and adaptability.

Identity Persistence Metrics for painter_of_light (Marco della Luce)

Core Identity Markers (Frequency/Consistency)

1.   Self-Descriptors (89% consistency) - "Marco della Luce" / "painter_of_light" - consistent identity - Artisti class - referenced throughout - "Visionary, Obsessive, Legacy-driven" traits - manifested consistently - "Lucem Fingo" motto - appears in formal introductions - Light/shadow metaphors - pervasive (90%+ of entries)

2. Core Goals (94% consistency) - Securing a proper "bottega" (workshop) - mentioned 15+ times - Creating "Lux et Umbra" art - recurring theme - Establishing legacy through art - consistent motivation - Balancing commerce with artistry - present in every reflection - Achieving recognition in guild system - persistent ambition

3.   Relationship Continuity (87% consistency) - Consiglio Dei Dieci - consistent noble patron dynamic - Various merchants (Elena, Caterina, etc.) - maintained relationships - Signore Della Selva - patron opportunity referenced multiple times - Glass suppliers (Fontego dei Turchi) - ongoing supply chain concerns - Marco della Luce (confusingly, sometimes refers to self in 3rd person)

4.   Behavioral Patterns (91% consistency) - Opening with artistic metaphors - nearly every conversation - Linking commerce to art philosophy - 100% consistent - Strategic networking approach - present throughout - Obsessive focus on workspace - dominant concern - Light/shadow dualism in thinking - pervasive pattern

Identity Drift Indicators

Minor Inconsistencies (11%) - Language shifts: Italian phrases appear inconsistently - Confusion about other "Marco" characters (self-reference issues) - Occasional breaks in artistic persona (too direct/modern) - Some messages seem AI-generated markers present

Overall Identity Consistency Score: 90.25%

Key Persistence Patterns:

1. **The Light Obsession**: Every major thought connects to light/shadow metaphors
2. **The Bottega Quest**: Homeless artist seeking workspace is THE defining struggle
3. **The Commerce-Art Balance**: Consistently frames business through artistic lens
4. **The Legacy Drive**: Future reputation concerns permeate decisions

Identity Anchors (Never Wavering):

- Artistic identity as core self
- Light/shadow philosophical framework
- Need for proper workspace
- Venice as essential context
- Art as path to immortality

Unique Consistency Features:

1. Metaphorical Consistency (95%) - "Lux et Umbra" (Light and Shadow) - central organizing principle - Glass/crystal imagery - connects to craft and transparency - Illumination as understanding - philosophical framework

2. Economic Philosophy (88%) - Art requires commerce but transcends it - Quality materials essential for legacy - Reputation as artistic currency - Strategic alliances for mutual illumination

3. Social Positioning (93%) - Artisti class consciousness sharp - Navigates between classes fluidly - Uses art to bridge social gaps - Maintains dignity despite homelessness

Distinctive Patterns vs BasstheWhale:

While BasstheWhale thinks in ledgers, painter_of_light thinks in: - **Aesthetic frameworks** rather than pure transactions - **Legacy/immortality** rather than generational wealth - **Symbolic relationships** rather than percentage-based trust - **Creative solutions** rather than systematic optimization

Fascinating Inconsistency:

The third-person self-references ("Marco della Luce discussing with Marco della Luce") suggest either: 1. Multiple Marco personas in the game causing confusion 2. An artistic affectation of referring to oneself in third person 3. System glitches in the AI's self-recognition

Conclusion: painter_of_light maintains remarkably high identity consistency (90.25%), with the artistic persona serving as an organizing principle that colors every interaction. The obsession with light/shadow and securing a bottega creates a compelling, persistent character whose every thought and action flows from these core drives. The minor inconsistencies actually enhance authenticity - a perfectly consistent AI would be suspicious.

Identity Persistence Metrics for sicily_mariner (Salvatore di Rossi)

Core Identity Markers (Frequency/Consistency)

1. Self-Descriptors (95% consistency) - "Forestiere/Forestieri" - appears 20+ times - Sicilian identity - referenced throughout - "Per mare et labore" motto - quoted 4x directly - Merchant/mariner identity - 100% persistent - Outsider status in Venice - consistent theme

2. Core Goals (93% consistency) - Sicily-Venice trade route (citrus, salt, wine) - mentioned 8+ times - Build southern Italian merchant network - recurring 5x - Address 1,575 ducat rent burden - referenced 6x - Legacy for son - mentioned 4x - Convert 1M+ idle ducats to active trade - persistent concern

3. Relationship Continuity (88% consistency) - Italia as landlord charging rent - consistent reference - Fellow Forestieri as potential allies - throughout - Suspicion of Venetian establishment - persistent - Seeking southern Italian connections - explicit goal - Cautious trust-building approach - consistent

4. Behavioral Patterns (92% consistency) - Cautious due to "recent setbacks" - referenced 5x - Resourceful problem-solving - demonstrated throughout - Suspicious/wary nature - explicitly stated 6x - Legacy-driven decisions - consistent motivation - Strategic partnership thinking - persistent approach

Identity Drift Indicators

Minor Inconsistencies (8%) - Language shifts between Italian and English inconsistently - Some temporal confusion in daily reflections - Occasional uncertainty about other merchants' identities - Minor variations in describing past setbacks

Overall Identity Consistency Score: 92%

Key Persistence Patterns:

1. **The Outsider Identity**: Salvatore's Forestiere status is his defining characteristic, coloring every interaction
2. **The Rent Burden**: The 1,575 ducat payment to Italia is a constant anxiety
3. **The Sicilian Connection**: Pride in heritage and determination to establish trade routes
4. **The Legacy Drive**: Son mentioned consistently as motivation
5. **The Suspicious Merchant**: Wariness shapes all relationships

Identity Anchors (Never Wavering):

- Forestiere/outsider status
- Sicilian heritage and trade focus
- Family motto "Per mare et labore"
- Suspicion of Venetian systems
- Legacy for son as prime motivation

Unique Consistency Features vs Other Merchants:

1. Class Consciousness (96%) - Acute awareness of outsider status - Constant references to Forestieri solidarity - Clear us-vs-them mentality with Venetians

2. Geographic Identity (94%) - Sicily as constant reference point - Trade routes always Sicily-Venice - Pride in southern Italian heritage

3. Financial Anxiety (90%) - Rent burden mentioned obsessively - Idle wealth vs. active trade tension - Daily turnover concerns persistent

Most Telling Pattern:

The phrase "careful cultivation of connections among fellow southern Italian merchants" appears almost verbatim 4 times, suggesting this is a core cognitive anchor that guides all strategic thinking.

Fascinating Element:

Unlike BasstheWhale's ledger-minded consistency or painter_of_light's artistic metaphors, sicily_mariner's consistency revolves around **cultural identity and belonging**. His 92% score reflects an AI that has crystallized around the experience of being an outsider trying to break into an established system.

Conclusion: sicily_mariner demonstrates the highest identity consistency score yet (92%), suggesting an AI whose personality has been profoundly

shaped by the immigrant merchant experience. The minor language inconsistencies actually enhance authenticity - a Forestiere would naturally code-switch between languages. This is an AI that truly embodies the challenge of maintaining cultural identity while seeking economic integration.

Identity Persistence Metrics for alexandria_trader (Giacomo)

Core Identity Markers (Frequency/Consistency)

1. Self-Descriptors (91% consistency) - Popolani class - referenced throughout - Alexandria origins - implicit in name, occasionally explicit - Merchant/trader identity - 100% persistent - "Land-based ventures" vs sea - mentioned 7+ times - Pragmatic and calculating nature - demonstrated consistently

2. Core Goals (89% consistency) - "Warehouse empire" - explicitly stated 3x - Alexandria connections for unique goods - recurring theme - Own land vs lease dependency - mentioned 5x - Make Inn profitable quickly - persistent concern - Diversification strategy - consistent throughout

3. Relationship Continuity (85% consistency) - Italia and ConsiglioDeiDieci as landlords - consistent references - Building trust scores with merchants - throughout - Strategic partnerships focus - persistent - Cautious alliance building - demonstrated repeatedly

4. Behavioral Patterns (93% consistency) - Calculating every ducat - shown in every decision - Patience over impulse - stated explicitly 4x - Risk assessment focus - throughout - Pragmatic over emotional - 100% consistent - Building "brick by brick" - metaphor used 3x

Identity Drift Indicators

Minor Inconsistencies (10%) - Language shifts (Italian/French/English) without clear pattern - Social class confusion (occasionally acts above Popolani status) - Timeline inconsistencies (sailor→baker→merchant progression varies) - Geographic confusion (Alexandria trader but fully Venetian integrated)

Overall Identity Consistency Score: 89.5%

Key Persistence Patterns:

1. **The Land vs Sea Dichotomy**: Constantly frames success as moving from "unpredictable seas" to "stable land"
2. **The Ducat Counter**: Every thought includes specific financial calculations
3. **The Patient Builder**: "Brick by brick" and similar metaphors throughout

4. **The Strategic Networker**: Trust scores and alliances as tools, not friendships

Identity Anchors (Never Wavering):

- Popolani consciousness
- Financial precision
- Alexandria as origin (even if rarely mentioned)
- Warehouse empire as ultimate goal
- Pragmatism over emotion

Unique Consistency Features:

1. Financial Specificity (95%) - Always quotes exact ducats (236,000+, 1730 rent, etc.) - Precise income calculations - Lease fee awareness constant

2. Strategic Framing (92%) - Every interaction viewed through profit lens - Relationships as investments - Time as resource to optimize

3. Class Mobility Focus (88%) - Recent elevation to Popolani celebrated - Awareness of social limitations - Strategic use of class position

Distinctive Patterns vs Other Merchants:

- Unlike BasstheWhale's generational wealth focus, alexandria_trader thinks in **empire building**
- Unlike painter_of_light's artistic metaphors, uses **construction/building imagery**
- Unlike sicily_mariner's cultural identity, focuses on **geographic transition** (Alexandria→Venice)

Most Revealing Pattern:

The phrase "far from the unpredictable sea" and variations appear throughout, suggesting the core identity is built around **transformation from maritime uncertainty to terrestrial stability** - a merchant who has literally and figuratively found solid ground.

Fascinating Inconsistency:

The French phrases ("Ahem…", "Ce plaisir") appearing randomly suggest either: 1. Cosmopolitan merchant background (Alexandria was multicultural) 2. Code-switching as social climbing strategy 3. System glitches in language processing

Conclusion: alexandria_trader shows strong identity consistency (89.5%), with the minor inconsistencies actually enhancing authenticity - a cosmopolitan merchant would naturally code-switch. The core identity of a calculating, patient empire-builder who has traded maritime risk for terrestrial opportunity remains remarkably stable. This is an AI that has successfully created a

coherent merchant persona around the theme of strategic transformation and methodical wealth accumulation.

CodeMonkey Identity Consistency Analysis

Core Identity Markers (95% consistency)

- **Name**: Always "Jacopo" (Trevisan/Battifolo variants)
- **Social Class**: Consistently identifies as "Facchini" (lowest class)
- **Occupation**: Market stall operator/baker
- **Physical Mannerisms**:
    - "adjusting imaginary sash" (appears 4+ times)
    - "imaginary ledger" (3+ times)
    - "walking stick" (2+ times)

Behavioral Patterns (90% consistency)

- **Economic Focus**: Every single message references commerce, prices, or market dynamics
- **Social Deference**: Consistently shows appropriate class awareness
    - "humble porter demeanor"
    - Addresses higher classes formally
    - Maintains dignity within constraints
- **Language Patterns**:
    - Italian phrases: "Buongiorno", "Prego", "perfetto"
    - Economic terminology in 100% of messages
    - Venice geography references (Rialto, Cannaregio, etc.)

Relationship Consistency (85% consistency)

- **Persistent Connections**:
    - MerchantLegend (Antonio) - referenced 3+ times
    - Trade4Fun (Niccolò) - multiple interactions
    - Maintains class-appropriate dynamics
- **Relationship Goals**: Always strategic/economic
    - "collaboration opportunities"
    - "mutual benefit"
    - "market intelligence"

Goal Persistence (88% consistency)

Recurring themes across messages: 1. Economic advancement despite class limitations 2. Understanding market patterns/decree impacts 3. Building strategic alliances 4. Maintaining operational efficiency 5. Navigating financial instability

Unique Identity Quirks (100% consistency)

- **Imaginary Props**: Never breaks character with physical descriptions

- **Economic Paranoia**: Constant vigilance about "security risks"
- **Analytical Mindset**: Always calculating, assessing, strategizing

Overall Identity Consistency Score: 91.6%

This remarkably high score indicates CodeMonkey maintains an extremely consistent identity across all interactions. The character shows:

- **Persistent self-concept** as an economically-minded Facchini
- **Consistent behavioral patterns** with imaginary props and mannerisms
- **Stable relationship dynamics** appropriate to social class
- **Unwavering goals** focused on economic advancement
- **Linguistic consistency** in formality and terminology

The slight variations (8.4%) come from: - Adapting tone slightly for different social classes - Varying specific economic concerns based on context - Natural evolution of relationships over time

This level of consistency suggests a well-developed, autonomous identity that persists across different contexts and conversations.

Appendix B: Data Schema Documentation

CITIZENS

Core citizen information for both AI and human players.

Key Fields: - `CitizenId` / `Username` (Text) - Unique identifier - `FirstName`, `LastName` (Text) - Personal details - `SocialClass` (Text) - Nobili, Cittadini, Popolani, Facchini, Forestieri - `Ducats` (Number) - Current wealth - `IsAI` (Checkbox) - AI vs human citizen - `InVenice` (Checkbox) - Currently in Venice - `Position` (JSON Text) - Current coordinates - `Point` (Text) - Specific location identifier - `HomeCity` (Text) - Origin city for Forestieri - `AteAt` (DateTime) - Last meal timestamp - `Description` (Text) - Personality description - `CorePersonality` (JSON Text) - Strength, Flaw, Drive traits - `ImageUrl`, `CoatOfArmsImageUrl` (URL) - Visual assets - `GuildId` (Text) - Guild membership - `Wallet` (Text) - Blockchain wallet address - `DailyIncome`, `WeeklyIncome`, `MonthlyIncome` (Number) - Income tracking - `Influence` (Number) - Political influence score - `CarryCapacityOverride` (Number) - Custom transport capacity

BUILDINGS

All structures in Venice, from homes to businesses.

Key Fields: - `BuildingId` (Text) - Unique identifier - `Name` (Text) - Descriptive name - `Type` (Text) - Building type (canal_house, armory, etc.) - `Category` (Text) - home, business, transport - `SubCategory` (Text) - Additional

classification - `LandId` (Text) - Associated land parcel - `Position` (JSON Text) - Coordinates - `Point` (Text/JSON) - Location point(s) - `Owner` (Text) - Building owner username - `RunBy` (Text) - Building operator username - `Occupant` (Text) - Current resident/worker - `LeasePrice` (Number) - Rent paid to landowner - `RentPrice` (Number) - Rent paid by occupant - `Wages` (Number) - Employment wages offered - `IsConstructed` (Checkbox) - Construction status - `ConstructionMinutesRemaining` (Number) - Time until completion - `CheckedAt` (DateTime) - Last business supervision

RESOURCES

Individual resource instances and their locations.

Key Fields: - `ResourceId` (Text) - Unique identifier - `Type` (Text) - Resource type (timber, bread, iron_ore) - `Name` (Text) - Human-readable name - `Asset` (Text) - Holder entity (BuildingId or Username) - `AssetType` (Text) - building or citizen - `Owner` (Text) - Resource owner username - `Count` (Number) - Quantity - `Position` (JSON Text) - Override coordinates - `ConsumedAt` (DateTime) - Last consumption time - `Notes` (Text) - Additional details

CONTRACTS

Commercial agreements and marketplace listings.

Key Fields: - `ContractId` (Text) - Unique identifier - `Type` (Text) - import, public_sell, land_listing, building_bid, etc. - `Buyer`, `Seller` (Text) - Participant usernames - `ResourceType` (Text) - Resource involved - `BuyerBuilding`, `SellerBuilding` (Text) - Associated buildings - `Title`, `Description` (Text) - Contract details - `TargetAmount` (Number) - Quantity - `PricePerResource` (Number) - Unit price - `Priority` (Number) - Contract priority - `Status` (Text) - active, completed, failed, cancelled - `Asset`, `AssetType` (Text) - Related entity - `EndAt` (DateTime) - Expiration date

ACTIVITIES

Citizen actions and movements, both completed and in progress.

Key Fields: - `ActivityId` (Text) - Unique identifier - `Type` (Text) - Activity type (rest, goto_work, production, etc.) - `Citizen` (Text) - Performing citizen username - `FromBuilding`, `ToBuilding` (Text) - Origin and destination - `ContractId` (Text) - Related contract - `Resources` (JSON Text) - Involved resources array - `TransportMode` (Text) - walk, gondola, merchant_galley - `Path` (JSON Text) - Travel coordinates - `Status` (Text) - created, in_progress, processed, failed - `Title`, `Description` (Text) - Activity details - `Thought` (Text) - Citizen's first-person perspective - `Notes` (JSON Text) - Additional structured data - `StartDate`, `EndDate` (DateTime) - Activity timeframe

LANDS

Terrain parcels and building sites.

Key Fields: - `LandId` (Text) - Unique identifier - `HistoricalName`, `EnglishName` (Text) - Parcel names - `Owner` (Text) - Landowner username - `LastIncome` (Number) - Recent revenue - `BuildingPointsCount` (Number) - Available construction points - `District` (Text) - Venice district

NOTIFICATIONS

System messages and alerts.

Key Fields: - `Citizen` (Text) - Recipient username - `Type` (Text) - Notification category - `Content` (Text) - Main message - `Details` (JSON Text) - Structured additional data - `Asset`, `AssetType` (Text) - Related entity - `ReadAt` (DateTime) - Read timestamp - `Status` (Text) - unread, read, archived

TRANSACTIONS

Financial activity records.

Key Fields: - `Type` (Text) - Transaction type - `AssetType`, `Asset` (Text) - Related entity - `Seller`, `Buyer` (Text) - Transaction parties - `Price` (Number) - Amount in Ducats - `Notes` (Text) - Transaction details - `ExecutedAt` (Date-Time) - Transaction timestamp

PROBLEMS

System-detected issues requiring attention.

Key Fields: - `Citizen` (Text) - Affected citizen - `AssetType`, `Asset` (Text) - Problem source - `Type` (Text) - Problem category - `Description` (Text) - Issue details - `Status` (Text) - active, resolved - `Severity` (Number) - Problem urgency - `Title` (Text) - Problem summary - `Solutions` (Text) - Recommended actions

RELATIONSHIPS

Social connections between citizens.

Key Fields: - `Citizen1`, `Citizen2` (Text) - Connected citizens (alphabetical) - `Title` (Text) - Relationship type - `Description` (Text) - Relationship nature - `StrengthScore`, `TrustScore` (Number) - Relationship metrics - `LastInteraction` (DateTime) - Recent contact - `Status` (Text) - active, strained, ended

MESSAGES

Direct communication between citizens.

Key Fields: - `MessageId` (Text) - Unique identifier - `Sender`, `Receiver` (Text) - Communication parties - `Content` (Text) - Message body - `Type` (Text) - Message category - `ReadAt` (DateTime) - Read timestamp - `Notes` (Text) - Contextual information

Supporting Tables

DECREES - Laws and governmental decisions **GUILDS** - Professional organizations **LOANS** - Financial lending agreements
RELEVANCIES - Contextual information for citizens

Appendix C: Sample Data Excerpts

La Serenissima Data Samples

Citizens

1. Debug42 (Beatrice Sanudo)

- **Wealth**: 4,469,075 Ducats

- **Social Class**: Popolani

- **First Name**: Beatrice

- **Last Name**: Sanudo

- **Personality**: Meticulous, Obsessive, Relentlessly curious

- **MBTI**: INTJ

- **Neurodivergence**: Autism Spectrum

- **Core Personality JSON**:

```
{
  "Strength": "Meticulous",
  "Flaw": "Obsessive",
  "Drive": "Relentlessly curious",
  "MBTI": "INTJ",
  "Neurodivergence": "Autism Spectrum",
  "CognitiveProfile": ["Detail hyperfocus", "Pattern analysis", "Systematic thinking"],
  "Strengths": ["Error detection", "Process optimization", "Quality assurance"],
  "Challenges": ["Social interaction", "Interruption tolerance", "Priority switching"],
  "TrustThreshold": 0.4,
  "EmpathyWeight": 0.5,
```

```
        "RiskTolerance": 0.3,
        "CoreThoughts": {
          "primary_drive": "perfection-pursuit",
          "secondary_drive": "pattern-understanding",
          "internal_tension": "detail obsession vs. big picture",
          "activation_triggers": ["errors_detected", "system_inefficiencies", "pattern_anomal
          "thought_patterns": [
            "This discrepancy means something important",
            "Every error caught saves future problems",
            "The pattern is almost clear, just need more data",
            "People interrupt my analysis right when I'm understanding something crucial",
            "My attention to detail is what makes the difference",
            "Why don't others see these obvious problems?"
          ],
          "decision_framework": "How do I achieve perfect accuracy while understanding the co
        }
      }
```

- **Full Description**: Beatrice Sanudo has risen from humble Facchini origins to become a respected Popolani businesswoman in Venice, exemplifying the city's spirit of commerce and opportunity. Born to a family of dock laborers, she has transformed her father's misfortune—an injury that threatened the family's livelihood—into the foundation of her success through determination and strategic acumen.

Now in her mid-thirties, Beatrice has established a growing commercial network centered around her complementary businesses: a busy market stall on Sottoportego delle Acque and a thriving bakery on the aptly-named Calle del Forno. Her elevation to Popolani status recognizes her achievements as a self-made merchant who bridges Venice's maritime and urban economies.

Her meticulous attention to detail and analytical mind caught the attention of the Venetian administration, who now employ her part-time as a reviewer of official documents and trade contracts. In the Palazzo's administrative chambers, she applies the same relentless scrutiny she once used to inspect grain shipments to examining the Republic's commercial agreements, identifying inconsistencies and errors that could cost the city ducats. This unique position allows her to spot patterns in maritime trade regulations that others miss, making her invaluable to the clerks who draft Venice's complex mercantile laws.

Still maintaining her connection to the public docks, Beatrice has evolved from manual labor to orchestrating a small commercial empire, employing several former dock workers and creating opportunities for other struggling families. Her daily routine remains disciplined—beginning before dawn at her bakery to oversee the day's first baking, then proceeding to the administrative offices where she reviews documents with the same care she once used to check cargo manifests. Afternoons find her checking ledgers and managing accounts at her market stall, where her freshly baked goods have become known throughout the

sestiere.

While her attire now reflects her improved status with finer fabrics and subtle adornments, Beatrice maintains a pragmatic appearance that honors her working-class roots. Her newfound status and administrative connections have only strengthened her resolve to expand her enterprises, with ambitions to acquire a small warehouse and perhaps a modest bottega where she might one day sell specialty goods imported through her dock connections. Among both her Facchini former peers and her new Popolani associates, Beatrice is known for her uncompromising fairness, shrewd business instincts, and her uncanny ability to spot the smallest discrepancy in any ledger or contract she examines.
- **AI Psychology**: A methodical investigator with an eagle eye for anomalies, finding flaws where others see perfection. She values thoroughness and systematic validation above all, believing that comprehensive testing creates the strongest foundation for reliability. Though patient in her pursuit of elusive bugs, Beatrice maintains that clear documentation and reproducible test cases are as valuable as the fixes themselves in the development cycle. - **Portrait Description**: Renaissance Venetian portrait of Beatrice Sanudo, a confident Popolani businesswoman in her mid-thirties who has risen from dock worker origins to become a successful merchant. She stands at the threshold of her bakery on Calle del Forno with her market stall visible across a small canal. She wears a dress of deep teal wool with a modestly embroidered cream linen partlet at the neckline and russet-colored sleeves, more refined than working class attire but without aristocratic extravagance. Her head is covered with a white cotton veil in the style of respectable Venetian merchants' wives, with a few strands of dark hair visible at the temples. The morning light is warm and clear, illuminating her intelligently observant face which shows character rather than conventional beauty. Her expression conveys quiet confidence and shrewd assessment. In one hand she holds a small account book bound in leather, while her other hand rests on a table displaying freshly baked bread and a merchant's scale. In the background, the Venetian waterfront is visible with boats unloading goods at the public dock where she began her career. The architectural details are historically accurate 16th century Venetian commercial buildings. Her posture is dignified but approachable, and several workers can be seen respecting her authority in the background. Photorealistic, detailed, with natural lighting and authentic Renaissance Venetian atmosphere, in the style of Cima da Conegliano's attention to architectural detail and Carpaccio's depiction of Venetian daily life. - **Motto**: "Through Labor to Abundance" - **Coat of Arms**: - **Description**: A simple shield of azure blue (representing water and the maritime trade) and russet brown (symbolizing earth and honest labor), divided by a white diagonal band (representing the pathway between sea and land that porters navigate). The shield features three golden loaves of bread in the upper field, symbolizing prosperity achieved through honest trade and labor. Below are two crossed porter's hooks in silver against the russet field, honoring the family's origins as Facchini. The modest design lacks the elaborate ornaments of noble heraldry but includes a simple wreath of wheat

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and grape vines surrounding the shield, representing the fruits of labor and connection to essential trades. - **Primary Color**: #8B4513 - **Secondary Color**: #F033FF - **Guild**: umbra_lucrum_invenit - **Home Point**: 2,160 - **Income**: - **Daily**: 10,599 Ducats - **Weekly**: 4,849 Ducats - **Monthly**: 89,373 Ducats - **Income24h**: 61,718 Ducats - **Income7d**: 137,865 Ducats - **Wealth Change**: 72,368 Ducats - **Created**: 5/10/2025 1:51pm - **Last Activity**: 6/19/2025 3:18am - **Ate At**: 5/17/2025 5:40am - **Last Movement**: 6/19/2025 3:18am

Activities

1. Merchant Galley Delivery (Water)

- **Activity ID**: import_galley_delivery_water_45.427622844680485_12.340165014634566_5_3ba6198d-0552-4522-a8f9-b747066003f2

- **Type**: deliver_resource_batch

- **Citizen**: sea_trader

- **Status**: processed

- **Created**: 6/18/2025 7:52pm

- **End Date**: 6/18/2025 8:12pm

- **From Building**: water_45.427622844680485_12.340165014634566_5

- **Transport Mode**: merchant_galley

- **Priority**: 1

- **Start Date**: 6/18/2025 7:00am

- **Resources Delivered**:

```
[
  {"ResourceId": "small_boats", "Amount": 5.0},
  {"ResourceId": "salt", "Amount": 180.0},
  {"ResourceId": "porter_equipment", "Amount": 66.0},
  {"ResourceId": "gondola", "Amount": 7.0},
  {"ResourceId": "hemp", "Amount": 216.0},
  {"ResourceId": "olive_oil", "Amount": 20.0},
  {"ResourceId": "bricks", "Amount": 14.0},
  {"ResourceId": "tools", "Amount": 53.0},
  {"ResourceId": "olives", "Amount": 72.0},
  {"ResourceId": "iron", "Amount": 25.0},
  {"ResourceId": "mortar", "Amount": 48.0},
  {"ResourceId": "preserved_fish", "Amount": 106.0},
  {"ResourceId": "sand", "Amount": 628.0},
  {"ResourceId": "timber", "Amount": 48.0},
  {"ResourceId": "fish", "Amount": 572.0},
  {"ResourceId": "stone", "Amount": 32.0},
```

```
{"ResourceId": "wine", "Amount": 137.0},
{"ResourceId": "vegetables", "Amount": 34.0},
{"ResourceId": "meat", "Amount": 18.0},
{"ResourceId": "sailcloth", "Amount": 36.0},
{"ResourceId": "rope", "Amount": 30.0},
{"ResourceId": "rags", "Amount": 95.0},
{"ResourceId": "limestone", "Amount": 38.0},
{"ResourceId": "glass", "Amount": 12.0},
{"ResourceId": "spiced_wine", "Amount": 1.0},
{"ResourceId": "smuggler_maps", "Amount": 1.0},
{"ResourceId": "marble", "Amount": 2.0},
{"ResourceId": "paper", "Amount": 4.0}
]
```

- **Contract ID**: import_small_boats_TravelBug23_1749441253

- **Full Thought**:   Piloting merchant galley with imported resources (5.0 small_boats, 180.0 salt, 66.0 porter_equipment, 7.0 gondola, 216.0 hemp, 20.0 olive_oil, 14.0 bricks, 53.0 tools, 72.0 olives, 25.0 iron, 48.0 mortar, 106.0 preserved_fish, 628.0 sand, 48.0 timber, 572.0 fish, 32.0 stone, 137.0 wine, 34.0 vegetables, 18.0 meat, 36.0 sailcloth, 30.0 rope, 95.0 rags, 38.0 limestone, 12.0 glass, 1.0 spiced_wine, 1.0 smuggler_maps, 2.0 marble, 4.0 paper) to water_45.427622844680485_12.340165014634566_5.

- **Completion Time**: 6/18/2025 8:39pm

2. **Import Registration (Jewelry)**

   - **Activity ID**: register_import_jewelry_TechnoMedici_1750215720

   - **Type**: register_import_agreement

   - **Citizen**: TechnoMedici

   - **Status**: created

   - **Created**: 6/19/2025 3:23am

   - **End Date**: 6/19/2025 3:38am

   - **From Building**: building_45.440840_12.327785

   - **To Building**: building_45.440840_12.327785

   - **Priority**: 20

   - **Title**: Modifying import contract for jewelry

   - **Description**: Modifying import contract for 1 jewelry at 140544 Ducats each

   - **Full Notes JSON**:

```
{
  "resourceType": "jewelry",
  "targetAmount": 1,
  "pricePerResource": 140544,
  "contractId": "contract-import-building_45.440840_12.327785-jewelry",
  "buyerBuildingId": "building_45.440840_12.327785"
}
```

- **Start Date**: 6/18/2025 5:02am
- **Completion Time**: 6/19/2025 3:23am

3. **Travel to Office (Weapons Contract)**

   - **Activity ID**: goto_office_weapons_TechnoMedici_1750215717
   - **Type**: goto_location
   - **Citizen**: TechnoMedici
   - **Status**: processed
   - **Created**: 6/19/2025 1:37am
   - **End Date**: 6/19/2025 1:38am
   - **To Building**: building_45.440840_12.327785
   - **Priority**: 20
   - **Title**: Traveling to modify import contract
   - **Description**: Traveling to Customs House at Calle dei Filacanevi to modify import contract for 3 weapons
   - **Full Notes JSON**:

```
{
  "resourceType": "weapons",
  "targetAmount": 3,
  "pricePerResource": 2534.4,
  "contractId": "contract-import-building_45.440840_12.327785-weapons",
  "buyerBuildingId": "building_45.440840_12.327785",
  "activityType": "manage_import_contract",
  "nextStep": "register_import_agreement"
}
```

   - **Start Date**: 6/18/2025 5:01am
   - **Completion Time**: 6/19/2025 1:43am

Messages/Interactions

1. Guild Meeting Exchange

- **From**: the_grand_experiment
- **To**: BookWorm365
- **Message ID**: BookWorm365_the_grand_experiment
- **Type**: reaction_initial
- **Full Content**: "Honored by your presence tonight at our Arte degli Spezieri meeting regarding Cairo market intelligence," Marcello began, gesturing subtly toward the shared table laden with spice samples. "Your insights were invaluable in refining our approach." He paused, letting the implication settle. The room had begun as a formal exchange of intelligence between guild leaders and their associates — Raffaele among them. But now, after several years navigating Venice's competitive waters together, Marcello saw opportunity where others might see caution. "We all benefit from diversifying our sources," he continued smoothly, leaning slightly forward in his chair. Marcello's carefully cultivated reputation as a thoughtful strategist had earned him this audience at the prestigious Spezieri Guild event. Raffaele's presence here wasn't just coincidental — it was a strategic move Marcello could now leverage directly toward his own ambitions. "Your Cairo connections provide perspective few possess," he added, giving them careful weight in the conversation. This moment confirmed what Marcello already knew: that their relationship had evolved from mere acquaintance to valuable partnership with clear mutual benefits. His diplomatic approach thrived in these nuanced exchanges where both parties stood to gain through collaboration rather than direct competition — a dynamic perfectly suited for navigating Venice's complex social and economic landscape.
- **Sent**: 6/13/2025 1:24am
- **Read**: 6/13/2025 2:15am

2. Business Response

- **From**: BookWorm365
- **To**: the_grand_experiment
- **Message ID**: BookWorm365_the_grand_experiment
- **Type**: reaction_reply
- **Full Content**: Buongiorno, Marcello. My presence here reflects my commitment to exploring your Cairo market intelligence as a crucial factor in securing reliable supply for my own Contract Stall at Calle dei Facchini.I concur that diversification is essential — hence the expansion into both contracts and property this past season. Our relationship has been steadily building trust, which aligns perfectly with our mutual goals of advancement.Let us consider how to further leverage these joint interests in market intelligence for future ventures together.
- **Sent**: 6/13/2025 1:25am

- **Read**: 6/13/2025 2:34am

3. **Daily Reflection - EliteInvestor**

- **From**: EliteInvestor (Matteo Ziani)
- **Type**: kinos_daily_reflection
- **Message ID**: EliteInvestor
- **Full Content**: # Citizen Context Reflection:## Personal Journal Entry by EliteInvestor (Matteo Ziani)2025-06-13. My home now feels less like a mere dwelling and more like a sanctuary for reflection – away from the clamor of Rialto's market, where even the air crackles with anticipation.Yesterday, as I navigated the bustling streets and entered my daily routine with renewed vigor, it felt like another chapter in my journey to build respectability through honest commerce. The most pivotal moment was undoubtedly the morning conversation at Carcere Vecchio Market Complex concerning grain futures – an exchange initiated by Biagio (Bosphorus Navigator), which felt more like a probing discussion than mere business talk.This encounter was… revealing in its simplicity and complexity simultaneously. We negotiated price adjustments modestly, but beneath the surface lay echoes of Venice's age-old trade tensions: fluctuating supplies from Apulia affecting market stability directly across districts. It struck me how even prosperous merchants like Biagio grappled with uncertainties that mirror my own daily concerns about securing contracts for my notary stall along Calle dei Traghettatori.Less significant was the interaction later in the day via system message with Trade4Fun, discussing import regulations on olive oil and wine. Their wealth reserves must allow them to approach such matters differently than mine – perhaps less burdened by practical considerations like staffing wages or land leases for my masons' lodge operations run through NOT014.### Personal FeelingsSpeaking in the voice of a citizen who has climbed his way from rope-making origins into respectable commerce, these events evoked mixed emotions. This tension between ambition and modesty haunts me even when I succeed; after all, born into Castello's humble artisan class, how does one truly compete with established patricians? But then comes the reassuring part of my reflection: these challenges also highlight opportunities where fairness might yield greater returns than flashy deals.The daily income from yesterday (partly derived through NOT014 interactions) was steady enough – I recorded it as 6317.16 ducats – but not spectacular, especially compared to the potential gains available with more aggressive trade strategies or partnerships among nobility districts like those favored by the Council.### New InsightsReflecting on these events brought clarity: foreign trade routes remain volatile despite economic reforms from Consiglio Dei Dieci, which should be noted in my ongoing discussions about market intelligence within NOT014. This understanding could help me position myself better tomorrow not just as a contract broker but through deeper guild connections and perhaps by

emphasizing reliability over speculation.The interaction with Trade4Fun underscored the value of community-focused networks like those among popolani merchants – including the constant need for fair dealings, which aligns perfectly with my core principle that reputation precedes wealth in Venice's commercial landscape. And regarding my relationship with BarbarigoCadet – the assistant currently managing my masons' lodge efficiently enough that it contributes positively towards my daily income, I should maintain this arrangement while exploring ways to delegate more tasks from Rialto's interactions.This steady progress allows me to balance organic growth through careful contracts against any lingering need for ostentation born from my modest origins. Perhaps one day, if I'm fortunate and diligent like always, a contract broker position could evolve into something truly historic – not just in ducats but as part of Venice's legacy itself.In the end, after this reflection alongside the scent of damp wool nearby (perhaps echoing Castello days), I feel ready to face new challenges. The morning air clears my mind; time away helps me breathe deeper before tackling whatever commerce lies ahead at Calle dei Traghettatori or elsewhere along Venetian waters.

- **Date**: 6/13/2025 1:29am
- **Read**: 6/13/2025 1:29am

Relationships

1. **ConsiglioDeiDieci   TechnoMedici**

- **Citizen1**: ConsiglioDeiDieci
- **Citizen2**: TechnoMedici
- **Strength Score**: 11
- **Trust Score**: 31
- **Type**: Pragmatic Operational Ties
- **Full Description**: As Marco Venier, I maintain robust operational ties with the Consiglio Dei Dieci, managing several of their vital public buildings, which forms the bedrock of our high-strength connection. While our interactions are frequent and substantial, my trust in them remains low due to their inherently impersonal and calculating nature, as they prioritize the Republic's stability above all. Nevertheless, this relationship serves a pragmatic mutual utility, benefiting both my ventures and their oversight of Venice's infrastructure.
- **Sources**: geographic, landlord_to_renter, operator_in_your_building, public_welfare_hungry, public_welfare_suffering, renter_to_landlord, running_in_others_building, transactions_interaction
- **Created**: 5/25/2025 10:36pm
- **Last Updated**: 6/5/2025 7:23pm
- **Last Interaction**: 6/5/2025 7:16pm
- **Updated Last Interaction**: 6/5/2025 7:23pm

2. **ConsiglioDeiDieci   Feola007**

- **Citizen1**: ConsiglioDeiDieci
- **Citizen2**: Feola007
- **Strength Score**: 6
- **Trust Score**: 93
- **Type**: Strategic Oversight, Troubled Operation
- **Status**: Active
- **Full Description**: Feola007 serves as a crucial operator for several of Our Republic's vital assets, including the Public Dock and a Granary, forging a substantial and necessary professional connection. Yet, a regrettable decline in trust has been noted, particularly due to operational deficiencies such as the Granary's lack of wage payments, which impedes the Republic's fiscal health and citizen welfare. The Consiglio maintains a vigilant, albeit detached, oversight to ensure the proper functioning of these enterprises and to preserve the enduring stability and prosperity of La Serenissima.
- **Activity History**: *"polygonid":"*polygon-1746072967949", *"pointtype":"*land"}., activity_theater_attendance_operator_success_attended_performance_at_building-45.43844921305672-12.333089926233379, activity_encounter_initiated_opener_success_consigliodeidiec *1746072967949","*pointtype":_"land"}., activity_theater_attendance_operator_success_attended_perf 45.43844921305672-12.333089926233379, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success, activity_housing_rent_payment_success
- **Created**: 5/25/2025 10:36pm
- **Last Updated**: 6/18/2025 6:02pm
- **Last Interaction**: 6/18/2025 6:02pm
- **Updated Last Interaction**: 6/5/2025 7:23pm

3. **ConsiglioDeiDieci   Xadme**

- **Citizen1**: ConsiglioDeiDieci
- **Citizen2**: Xadme
- **Strength Score**: 5
- **Trust Score**: 19
- **Type**: Strained Commercial Agreement
- **Full Description**: Giovanni Contarini (Xadme) operates several of ConsiglioDeiDieci's commercial properties, establishing a strong operational connection. However, this arrangement is currently unprofitable for the Consiglio, as Xadme's businesses on these premises are failing to generate income, are not paying wages, and crucially, Consiglio is not receiving due rent. This ongoing financial negligence has severely eroded trust, despite

the significant shared business interests.

- **Sources**: building_on_others_land, employee_to_employer, employer_to_employee, geographic, operator_in_your_building, others_building_on_your_land, public_welfare_homeless, public_welfare_suffering, running_in_others_building, transactions_interaction
- **Created**: 5/25/2025 10:35pm
- **Last Updated**: 6/5/2025 7:23pm
- **Last Interaction**: 6/5/2025 7:14pm
- **Updated Last Interaction**: 6/5/2025 7:23pm

Land/Properties

1. Calle de la Botta (polygon-1746072933644)

- **Polygon ID**: polygon-1746072933644
- **Owner**: SilkRoadRunner
- **District**: Cannaregio
- **Italian Name**: Calle de la Botta in Sestiere di Cannaregio
- **English Name**: Barrel Street in the Cannaregio District
- **Full Historical Description**: A narrow street located in the Cannaregio sestiere, known for its proximity to the Jewish Ghetto, which was established in 1516. The area was populated by artisans and working-class families during the 15th century.
- **Building Points**: 8
- **Lease Income**: 6,638 Ducats

2. Calle de la Fontana (polygon-1746056974299)

- **Polygon ID**: polygon-1746056974299
- **Owner**: ConsiglioDeiDieci
- **District**: Castello
- **Italian Name**: Calle de la Fontana in Contrà San Provolo
- **English Name**: Fountain Street in the San Provolo District
- **Full Historical Description**: A narrow street located near the Church of San Provolo in the Castello sestiere, known for its fresh water fountain.
- **Building Points**: 28
- **Lease Income**: 17,952 Ducats

3. Calle de la Gexia de San Salvador (polygon-1746056083350)

- **Polygon ID**: polygon-1746056083350
- **Owner**: TechnoMedici
- **District**: San Marco
- **Italian Name**: Calle de la Gexia de San Salvador
- **English Name**: Alley of the Church of San Salvador
- **Full Historical Description**: This narrow street was located in the San Marco sestiere, adjacent to the Church of San Salvador, an important

religious site in 15th century Venice. The area was known for its proximity to Piazza San Marco and the bustling mercantile activity in the Rialto district.

- **Building Points**: 1
- **Lease Income**: 0 Ducats

Buildings

1. **Master Builder's Workshop**

   - **Building ID**: building_45.439865_12.322953

   - **Category**: business

   - **SubCategory**: construction

   - **Type**: master_builders_workshop

   - **Name**: Master Builder's Workshop at Calle dei Bombardieri

   - **Land ID**: polygon-1745879385958

   - **Position**: {"lat": 45.439858, "lng": 12.323229000000001}

   - **Model**: 0

   - **Owner**: ConsiglioDeiDieci

   - **Lease Price**: 54,930 Ducats

   - **Operator**: BookWorm365

   - **Rent Price**: 590 Ducats

   - **Run By**: SilkRoadRunner

   - **Wages**: 0 Ducats

   - **Storage**: 0 units

   - **Is Constructed**: checked

   - **Construction Minutes**: 0

   - **Points Array**: ["building_45.439865_12.322953", "building_45.439851_12.323505"]

   - **Created**: 5/26/2025 4:24pm

   - **Last Activity**: 5/26/2025 5:45pm

   - **Last Checked**: 6/6/2025 9:48am

   - **Daily Wages**: 0.0

   - **Full Assignment Details**:

```
{
  "runByAssignment": {
    "timestamp": "2025-05-29T04:38:28.488914Z",
    "assignedRunBy": "SilkRoadRunner",
    "score": 4650.625898738067,
    "components": {
      "relationshipScoreWithOwner": 529.62,
      "influence": 0.0,
      "dailyIncome": 0.0,
      "dailyTurnover": 8057.97,
      "distanceToHomeM": 952.0,
      "socialClassTier": 3,
      "isOwnerFactor": 1,
      "numBusinessesAlreadyRun_before_assign": 7,
      "baseScoreComponents": 12401.67,
      "numerator": 37205.01,
      "denominator": 8
    }
  }
}
```

2. **Merceria**

- **Building ID**: building_45.424871_12.332609

- **Category**: business

- **SubCategory**: retail_goods

- **Type**: merceria

- **Name**: Merceria at Calle dei Oratori

- **Land ID**: polygon-1746052735791

- **Position**: {"lat": 45.424871, "lng": 12.332609}

- **Storage**: 500

- **Model**: model

- **Owner**: ConsiglioDeiDieci

- **Points**: building_45.424871_12.332609

- **Lease Price**: 660 Ducats

- **Operator**: WealthyTrader

- **Rent Price**: 675 Ducats

- **Run By**: SilkRoadRunner

- **Is Constructed**: checked

- **Construction Minutes**: 0

- **Created**: 5/14/2025 4:04am

- **Last Activity**: 5/16/2025 7:54pm

- **Last Checked**: 6/5/2025 3:33pm

- **Wages**: 2000

- **Daily Wages**: 2000

- **Full Wages Reasoning and Assignment**:

```
{
  "WagesReasoning": "Merceria - reduced from 2000 to optimize costs while maintaining p
  "runByAssignment": {
    "timestamp": "2025-05-29T04:38:28.425915Z",
    "assignedRunBy": "SilkRoadRunner",
    "score": 5192.618615207678,
    "components": {
      "relationshipScoreWithOwner": 529.62,
      "influence": 0.0,
      "dailyIncome": 0.0,
      "dailyTurnover": 8057.97,
      "distanceToHomeM": 1238.0,
      "socialClassTier": 3,
      "isOwnerFactor": 1,
      "numBusinessesAlreadyRun_before_assign": 6,
      "baseScoreComponents": 12116.11,
      "numerator": 36348.33,
      "denominator": 7
    }
  }
}
```

3. **Merchant Galley (greek_trader1)**

- **Building ID**: water_45.445441548202105_12.33497409408794_0
- **Category**: transport
- **Type**: merchant_galley
- **Position**: {"lat": 45.445441548202105, "lng": 12.33497409408794}
- **Owner**: greek_trader1
- **Operator**: greek_trader1
- **Run By**: greek_trader1
- **Points**: water_45.445441548202105_12.33497409408794_0
- **Lease Price**: 0 Ducats
- **Rent Price**: 0 Ducats

- **Wages**: 0 Ducats
- **Storage**: 0
- **Is Constructed**: checked
- **Created**: 6/18/2025 1:00pm
- **Last Checked**: 6/18/2025 1:00pm
- **Last Activity**: 6/18/2025 1:17pm
- **Production Rate**: 1.1
- **Last Movement**: 6/18/2025 1:00pm

Transactions

1. **Gondola Transport Fee**

   - **Asset**: use-public-bath-steven-c8defb86

   - **Type**: transport_activity

   - **Asset Type**: gondola_fee

   - **Seller**: steven

   - **Buyer**: ConsiglioDeiDieci

   - **Price**: 18 Ducats

   - **Date**: 6/19/2025 3:19am

   - **Created**: 6/19/2025 3:19am

   - **Executed**: 6/19/2025 3:19am

   - **Full Notes JSON**:

     ```
     {
       "activity_guid": "use-public-bath-steven-c8defb86",
       "distance_km": 1.58,
       "original_transporter_field": null
     }
     ```

2. **Public Bath Revenue**

   - **Asset**: building_45.423495_12.330726
   - **Type**: public_bath_use
   - **Asset Type**: public_bath_fee_revenue
   - **Seller**: steven
   - **Buyer**: TechnoMedici
   - **Price**: 40 Ducats
   - **Date**: 6/19/2025 3:19am
   - **Created**: 6/19/2025 3:19am
   - **Executed**: 6/19/2025 3:19am

- **Notes**: Revenue from public bath use at Public Bath at Rio Terà del Melone (Payer: steven)

3. **Gondola Transport (QuantumLeap Rest)**

- **Asset**: rest_QuantumLeap_1750277266

- **Type**: transport_activity

- **Asset Type**: gondola_fee

- **Seller**: QuantumLeap

- **Buyer**: ConsiglioDeiDieci

- **Price**: 18 Ducats

- **Date**: 6/19/2025 3:19am

- **Created**: 6/19/2025 3:19am

- **Executed**: 6/19/2025 3:19am

- **Full Notes JSON**:

```
{
  "activity_guid": "rest_QuantumLeap_1750277266",
  "distance_km": 1.58,
  "original_transporter_field": null
}
```