WalsoftAI-Genealogy: Post-MVP Expansion Plan

Document Type: Strategic Feature Roadmap
Related Docs: MVP Implementation Blueprint, Env Setup Appendix
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Version: v1.0
Date: June 2025

🔭 Purpose

This document outlines a clear and realistic set of features that can be added to WalsoftAI-Genealogy after successful deployment and testing of the MVP. It excludes features already implemented and instead focuses on scalable, culturally aware, and AI-augmented expansions that build on the solid foundation now in place.

🚀 Phase 2: Functional Enhancements

1. Multi-Family & Household Support

- Add `FamilyGroup` or `Household` model to scope `Person` entries
- Enables organization of clans, polygamous homes, and blended families
- Useful for permissions, data separation, and family-specific views

2. Polygamy Visualization

- Add UI tools to group children under correct mother(s)
- Use timeline or family grid views to enhance clarity

3. Editable Tree Builder (Drag and Drop)

- Integrate a JS-based lineage UI (e.g., React + D3 or Cytoscape)
- Allow manual linking or correction of relationships via admin UI

4. PDF Export and Print Layouts

- Generate A4-ready family reports or storybooks
- Use `xhtml2pdf` or `WeasyPrint` with custom Luhya-styled templates

📖 Phase 3: AI Narrative Expansion

5. Local AI Q&A Engine

- Allow users to ask: "Who was my maternal grandfather?" or "Who migrated to Busia?"
- Extend current AI prompt engine with a search + Jinja + answer module

6. Oral Story Ingestion (Audio to Text)

- Upload oral narratives (.mp3/.wav)
- Use `whisper.cpp` or `faster-whisper` to transcribe
- Integrate with existing `Person.story`

7. Cultural Enrichment AI

- Use `idioms.json`, `clans.json`, `totems.json` to enhance narratives
- AI can insert proverbs, rituals, or clan-specific language markers

8. Curation & Community Voting

- Let elders or contributors upvote, flag, or annotate stories
- Moderation workflow using `admin_tools/`

🔐 Phase 4: Access & Collaboration

9. Role-Specific Dashboards

- Custom dashboards for:
    - Admin: full access
    - Contributor: data entry, edits
    - Elder: cultural oversight and verification
    - Researcher: read-only with tagging ability

10. User Attribution + History Trail

- Store which user added or edited which record
- Display edit logs in admin (leveraging `django-simple-history`)

11. Invite-Based Access

- Allow family heads or researchers to invite members via token/email

- Auto-link them to a `FamilyGroup`

📊 Phase 5: Analytics, Insights & Maps

12. Migration Maps

- Use place_of_origin + historical event tracking to create interactive maps
- Show movements from Western Kenya to cities or across clans

13. Lineage Insights Panel

- Number of descendants
- Most common names, birth trends, cultural patterns
- Helpful for legacy documentation or reports

📦 Phase 6: Ecosystem & Outreach

14. Offline Desktop Version (Electron + Django)

- Build installable genealogy tool for areas without reliable internet

15. Mobile-First Story Collector

- Lightweight app for contributors to upload photos or stories
- Possibly built with Flutter or React Native

16. Open API for Academic Use

- Allow universities and cultural researchers to request data securely

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✅ Summary

All post-MVP features listed here are designed to plug directly into the current WalsoftAI-Genealogy structure without refactoring. They expand the platform into:

- A culturally intelligent heritage system
- A collaborative family knowledge base
- A private, AI-augmented lineage archive

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