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Intellectual Property

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Patent Pending

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LookingGlass: Real-Time Contextual Mapping Tool for Tracking Population Movements and Their Drivers

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Background

Current technology for monitoring social media will track frequencies of matching documents for simple, unorganized, keyword lists containing names of groups, individuals, practices, brands, and places. This has left a gap between what society thinks is understood from monitoring and what is actually understood in the complex systems that make up societies. Decision-making at the macro levels of social, political, cultural, and behavioral levels are left to make assumptions. It is also difficult to match individual followers, influencers, and groups to the macro level issues. This problem has made it very difficult to collect and understand data that may point to potential security threats to national interests from behaviors, attitudes, and identities.

Invention Description

Researchers at Arizona State University have developed a real-time, contextual analysis system that models complex socio-political situations that have a large degree of volatility and uncertainty. This innovation enables decision-makers to analyze cultures, attitudes, events, relationships and project potential outcomes. System users have the ability to understand the driving factors of behaviors in complex and dynamic environments by accounting for beliefs, goals, and intentions of influential state and non-state actors, as well as their leaders and followers. The system mines and organizes data to show the sizes and geographic footprints of social-media active groups, links and interactions between groups, lists, locations, and other demographic information about the group's influential followers, group trends, and provides detailed information about the patterns of any geographic location, group, or individual.

Potential Applications

- Detection of potential terrorist threats
- Model religious and sectarian extremism and trends
- Project anticipatory scenario development and strategic planning for regional instability
- Track enemy combatants
- Detecting financial fraud

Benefits and Advantages

- **Fast** – Analyzes large amounts of data quickly
- **Better Decisions** – Provides leaders with information and scenarios for potential outcomes to aid in decision-making
- **Saves Lives** – Proactive system allows for rapid response and preemptive action