

LiveSpot: A Real-Time Location-Based Social Platform

Mohammad Hamdan, Momen Anani

Supervisor: Dr. Anas Toma

2025

Table of contents

01

**Introduction,
Motivation**

02

Key Features

03

Methodology

04

Results, UI

05

**Conclusion,
Future Work**





01

Introduction, Motivation





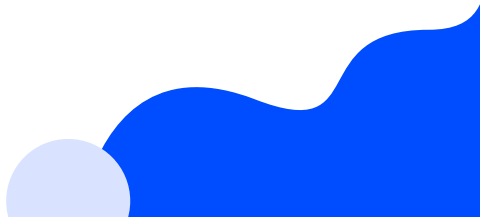
What is LiveSpot?

- A real-time location-based news tracking and verification platform.
- Combines community reporting with news aggregation to combat misinformation and rapid escalations .

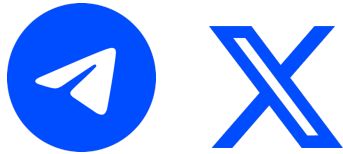


Why Implement LiveSpot?

The Problem:

- **Misinformation Spread :**
During crises, false or misleading information spreads quickly, while platforms struggle to verify accuracy in real time.
 - **Information Overload:**
In fast-escalating situations, people get overwhelmed and miss important or potentially life-saving updates.
 - **Fragmented Coverage:**
Everyone shares parts of the same event across different platforms — scattered insights, no unified view.
- 

Gaps in other Applications



Hard to Discover Critical Updates

Platforms rely on unstructured feeds where critical information is easily lost.



No Community Participation

Users can't participate in reporting or verifying information — platforms depend solely on admin or institutional input.



Top-Down, Delayed News Delivery

News flows from centralized sources, often slowly, with no real-time input from people on the ground.

Our Solution!

- **Unified Platform:** real-time, location-tagged reports from users on the ground.
- **Verified Updates:** GPS authentication + community voting ensures accuracy.
- **Instant Awareness:** Never miss critical news — everything is grouped by topic, time, and place for fast, clear updates.

Main Objective

Bridge the gap between speed and reliability in news reporting by delivering real-time, location-verified news from eyewitnesses, eliminating delays and misinformation.



02

Key Features



Core Differentiators

What Makes LiveSpot Unique



Location Verification

Are you there? Prove it! GPS locks posts to exact coordinates.

Honesty Scoring

Crowdsourced upvotes/downvotes flag unreliable reports.

Smart Alerts

Get real-time alerts about trending crises near you prioritized by urgency and location.

Threaded Updates

Reports about the same event are automatically grouped by time, topic, and location — no more fragmented info.

Social & Communication Features

Real-Time Messaging

Chat directly with other users in the app.



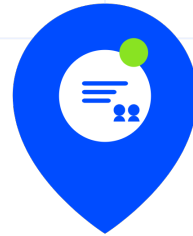
Location-based Discovery

Find posts near you using the map and discover local content



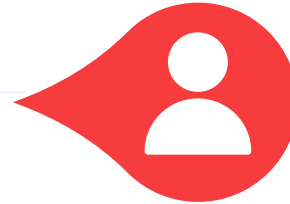
Community Interaction

Upvote/downvote posts, save content, and view stories from users you follow



User Profiles

View user activity, follow other users, and access their stories



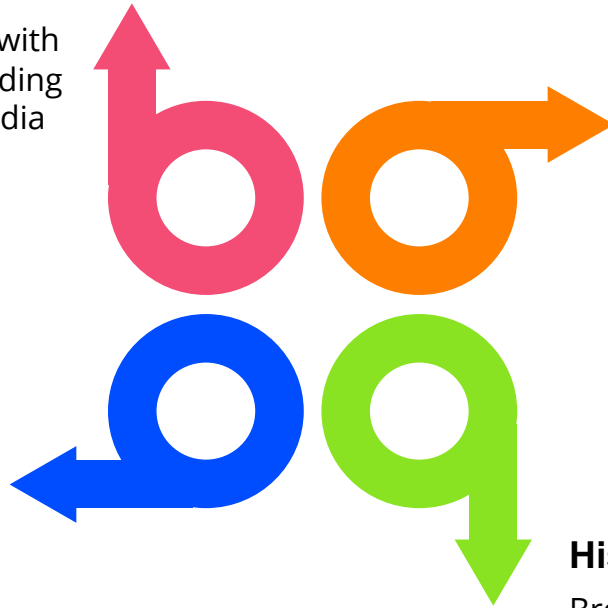
Content & Media Management

Content Creation

Many different categories available with easy-to-use interface for posts including location, category selection, and media attachments.

Media Uploads

Share photos and videos with your posts, quick media preview without reading full posts.



Anonymous Posting

Post sensitive content without revealing your identity.

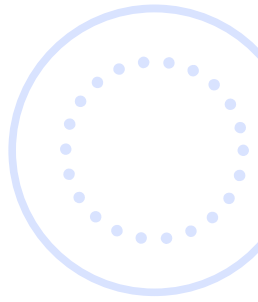
Historical Content View

Browse posts by specific dates to see what happened on any given day.



03

Methodology



Technology Stack

Frontend

Flutter (cross-platform)
with Provider for lightweight
state management.



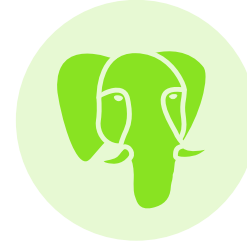
Backend & Auth

Django REST API with JWT
and social login support.



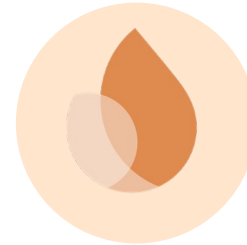
Database & Storage

PostgreSQL and Django
media server.



Real-Time & Integrations

Firebase for notifications
and sync. OSM and
Gemini for location and AI.



Development Approach



Cross-Platform

Single Flutter codebase for iOS, Android, Web



State Management

Provider pattern for UI updates



Modular Services

Separate auth, location, posts, AI services

Key Systems

Location Services

GPS with fallback strategies and coordinate storage.

Real-Time Communication

Firebase messaging and notifications.

Content Management

Smart recommendations and community voting based on user behavior.

Authentication System

Google OAuth + JWT token management.

AI Integration

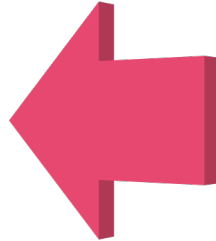
Gemini chatbot assistance.



Testing Approach

Backend Testing

API endpoint validation



User Testing

Authentication and notification flows

Platform Testing

Cross-platform compatibility

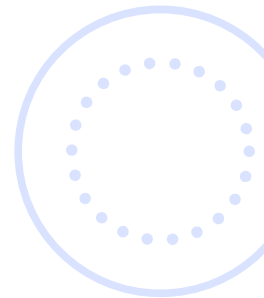
Location Testing

GPS accuracy and fallbacks



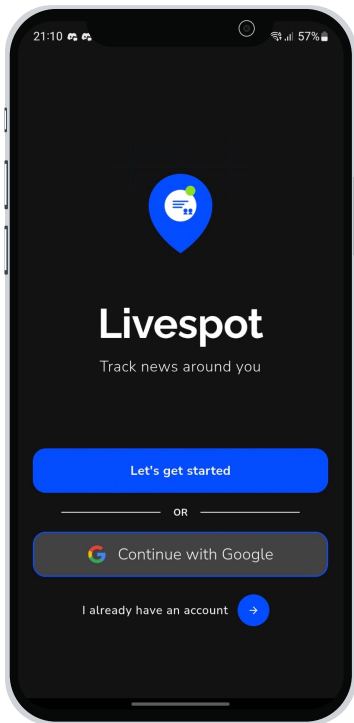
04

Results, UI

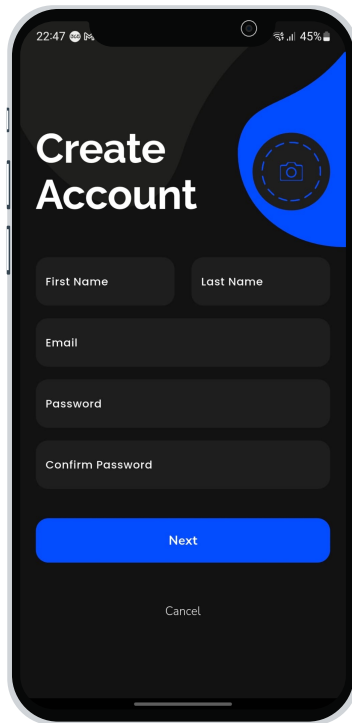


Authentication & Onboarding

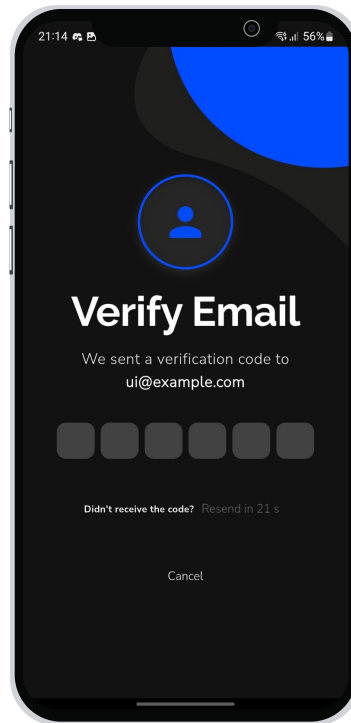
Getting Started



Welcome screen



Account creation



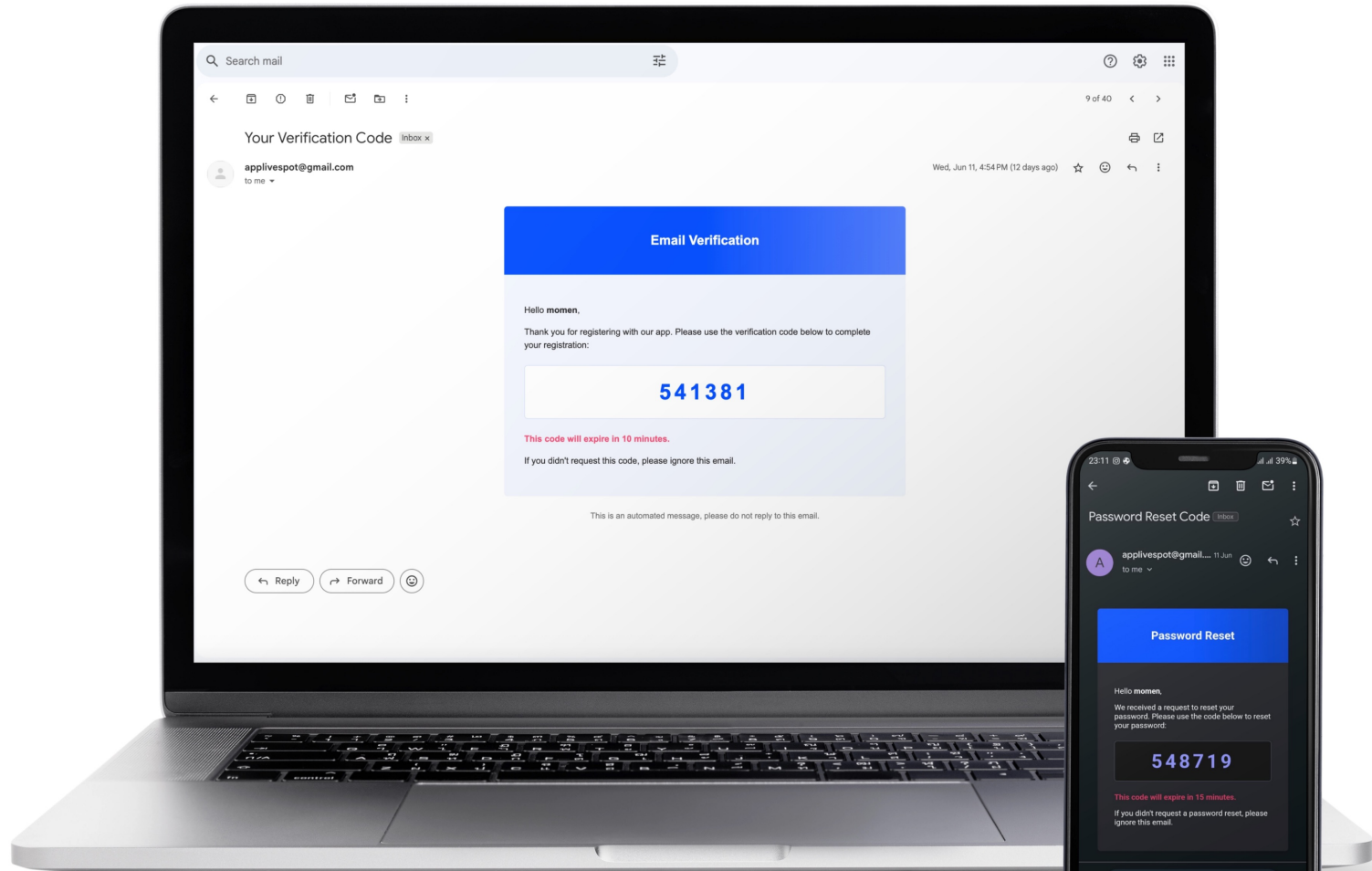
Email verification

Create Account



Next

Cancel



Search mail



9 of 40 < >

Your Verification Code Inbox x

appivespot@gmail.com
to me

Wed, Jun 11, 4:54 PM (12 days ago) ☆ 😊 ↶ ⋮

Email Verification

Hello **momen**,

Thank you for registering with our app. Please use the verification code below to complete your registration:

541381

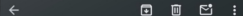
This code will expire in 10 minutes.

If you didn't request this code, please ignore this email.

This is an automated message, please do not reply to this email.

↶ Reply ↷ Forward 😊

23:11 99%



Password Reset Code Inbox

appivespot@gmail.com
to me

Password Reset

Hello **momen**,

We received a request to reset your password. Please use the code below to reset your password:

548719

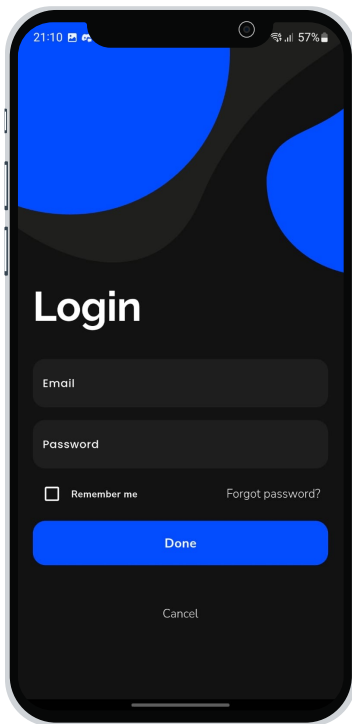
This code will expire in 15 minutes.

If you didn't request a password reset, please ignore this email.

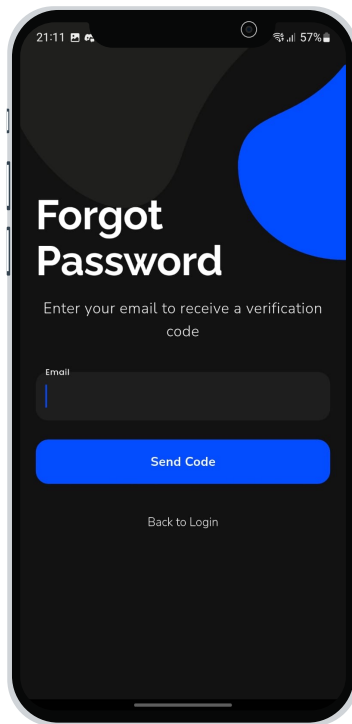
↶ Reply ↷ 😊

Login & Security

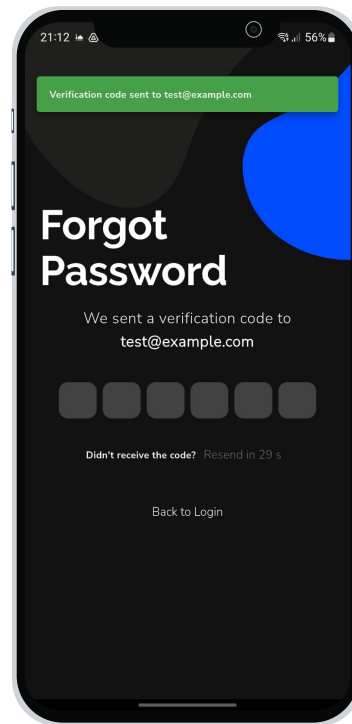
User Authentication



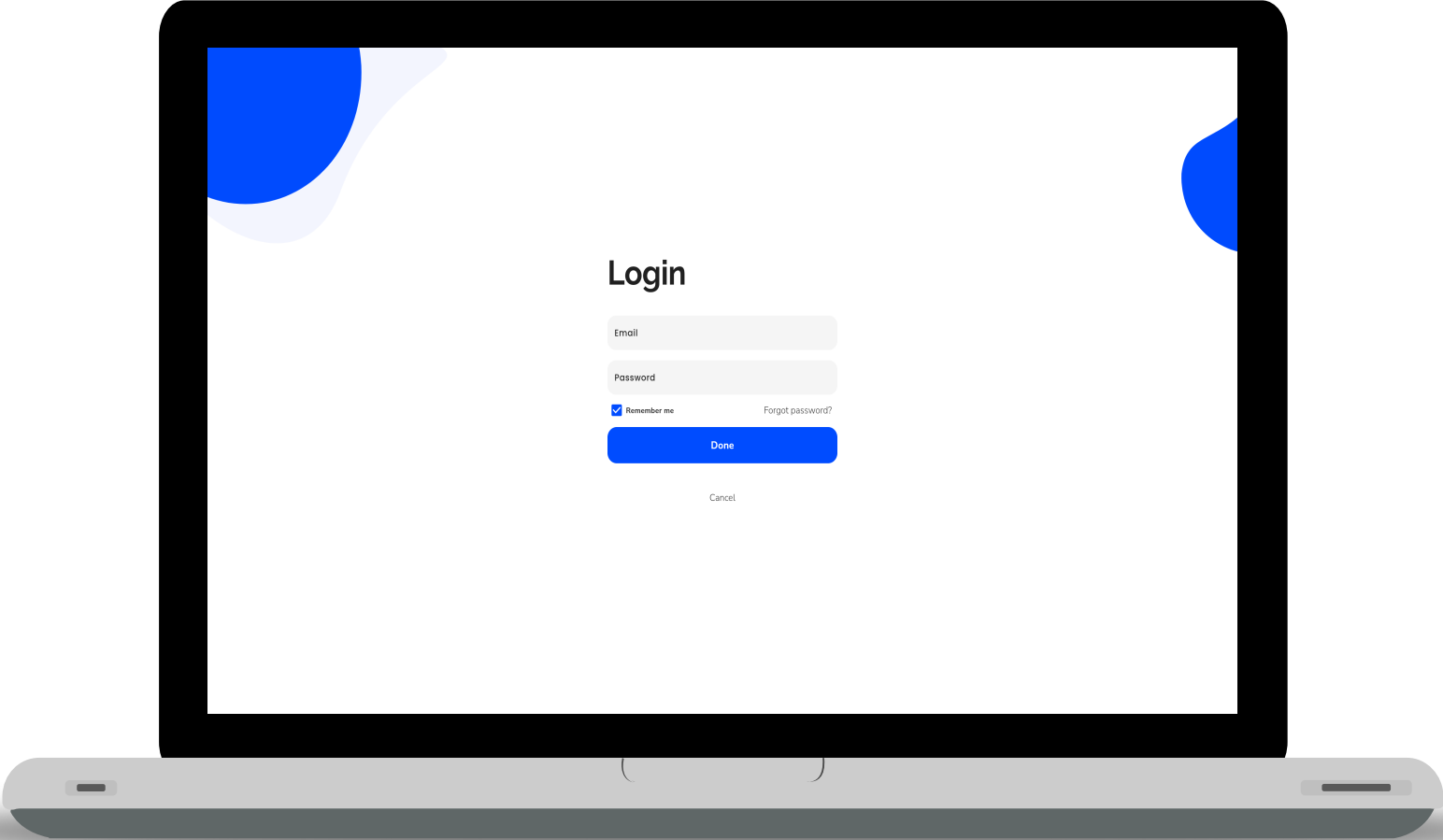
Mobile login interface



Password recovery



Password reset verification



Login

Email

Password

Remember me

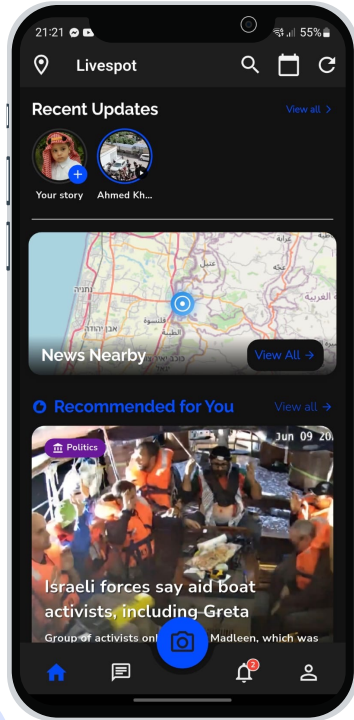
[Forgot password?](#)

Done

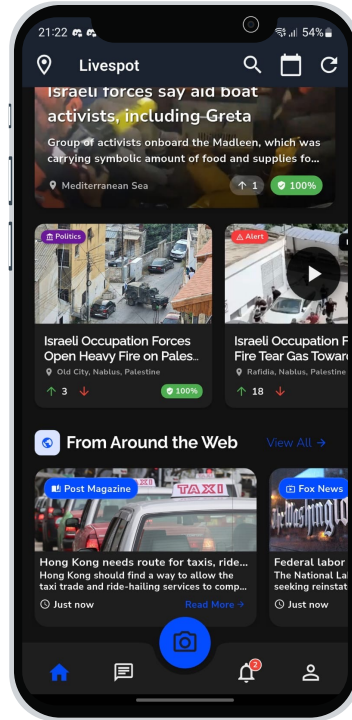
Cancel

Main Interface & Home

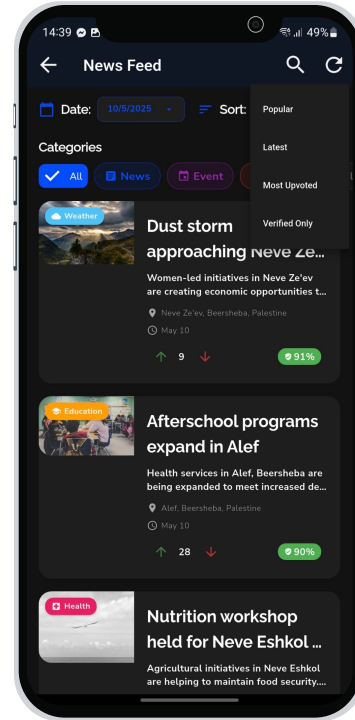
Core App Experience



Main page (Home)



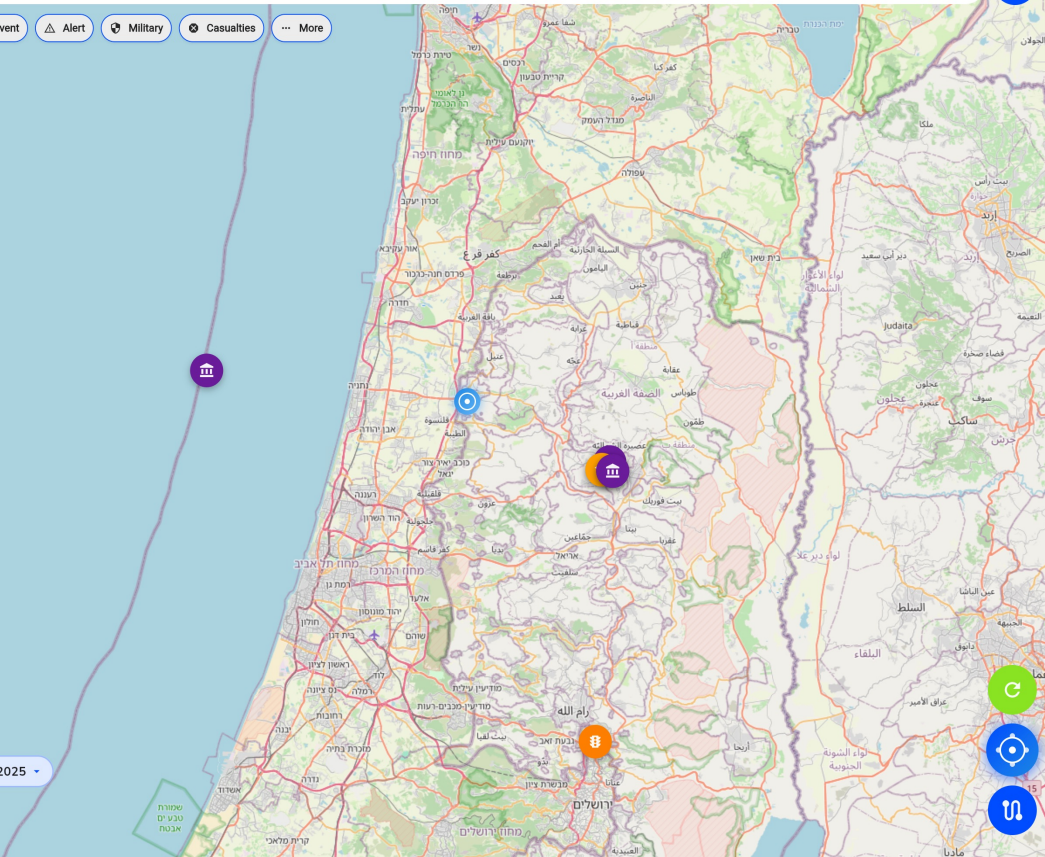
Alternative home view



Posts with filters

Enter your location

- News
- Event
- Alert
- Military
- Casualties
- More



- Home
- Notifications
- Alerts
- Profile

Livespot 🔍 📅 🔄

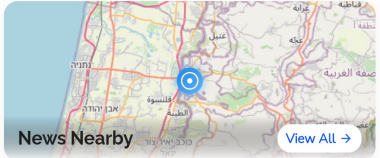
Recent Updates View all >



My Story



No stories available

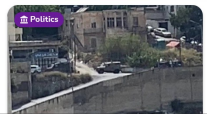


Recommended for You View all >

Journalist Momen Abu AlOuf Martyred

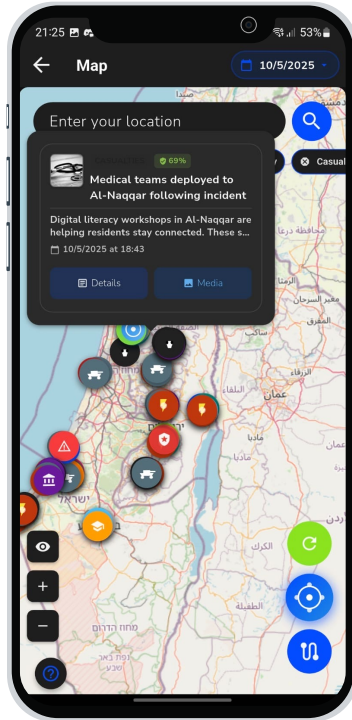
Journalist Momen Abu Al-Ouf was killed alongside paramedics after being targeted by Israeli forces on Yaf...

Al Shati, Gaza City, Palestine ↑ 37 👍 92%

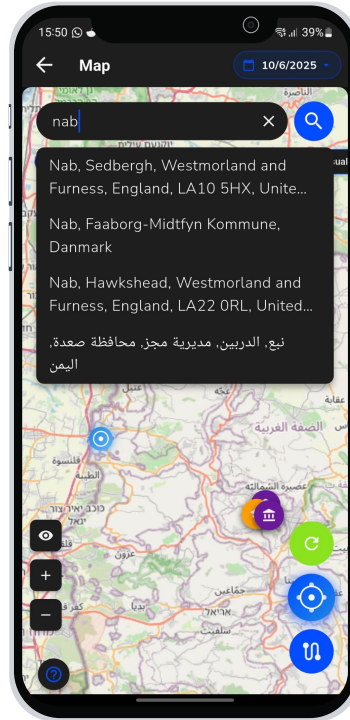


Map & Location Features

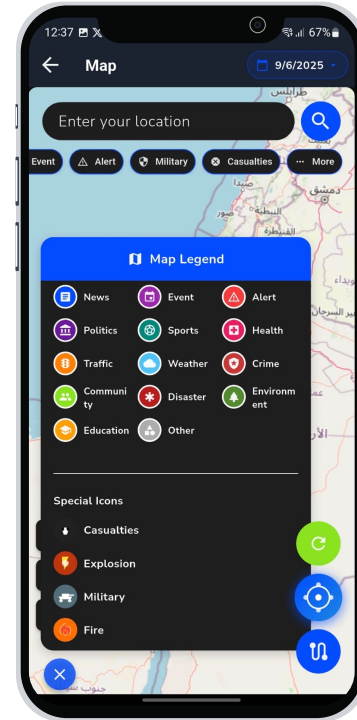
Location-Based Discovery



Main map interface



Search functionality

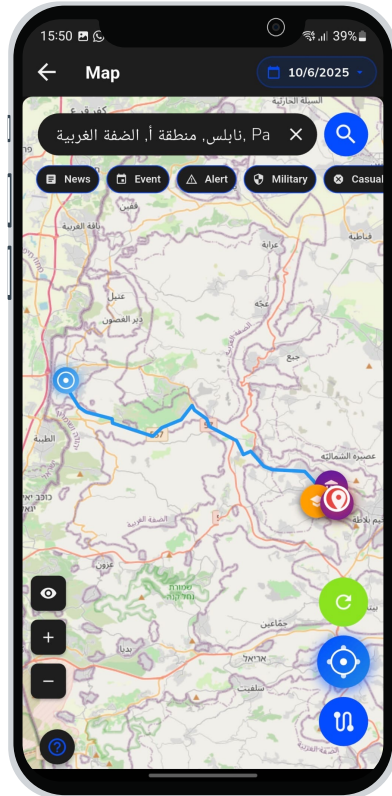


Map legend

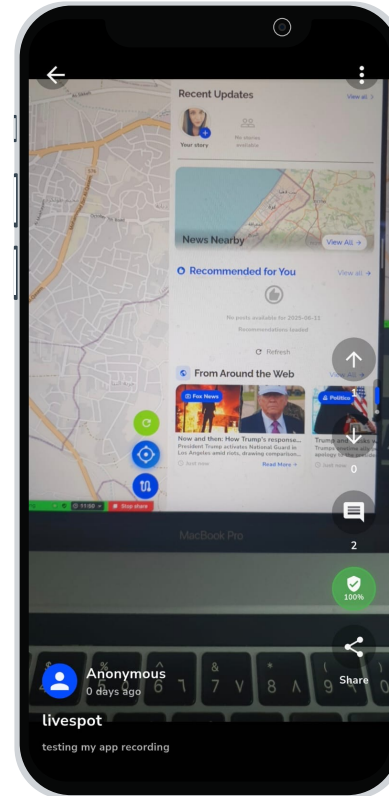
Enhanced Map Features

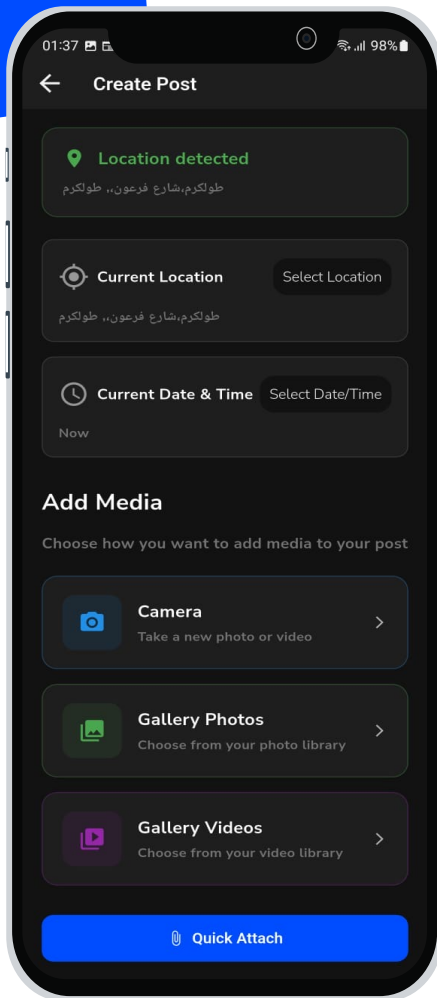
Advanced Location Services

Route planning

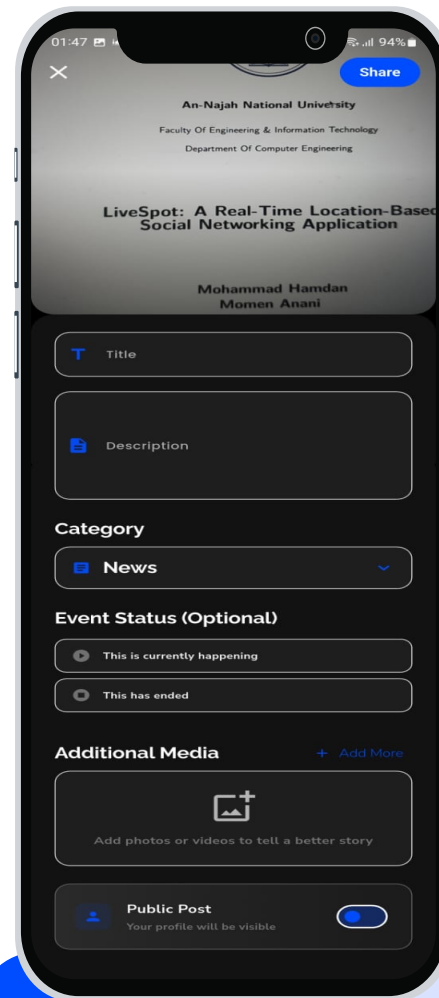


Map with media content





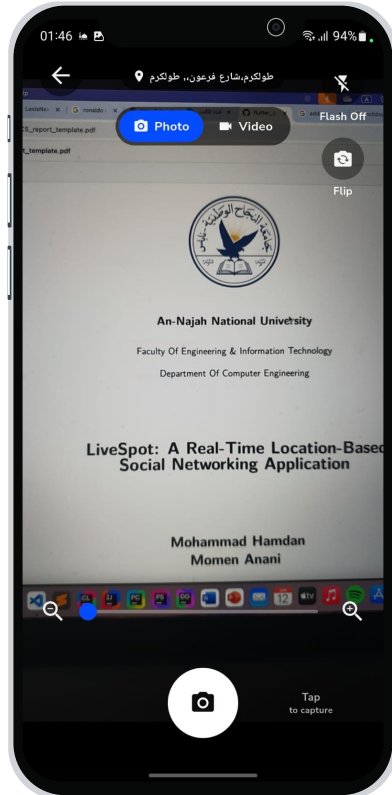
Content Creation Creating Posts



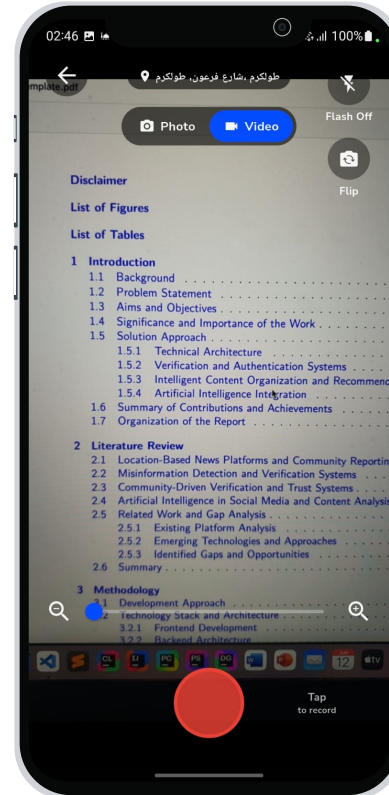
Media Capture

Recording Content

Camera
integration

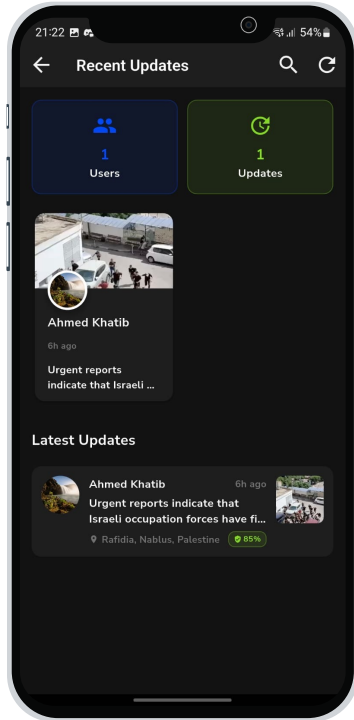


Video
recording

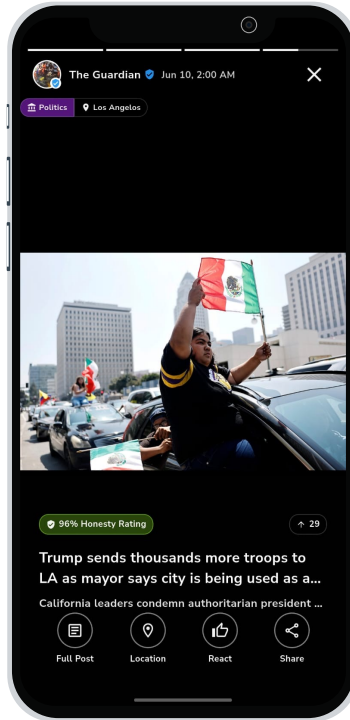


Stories & Content

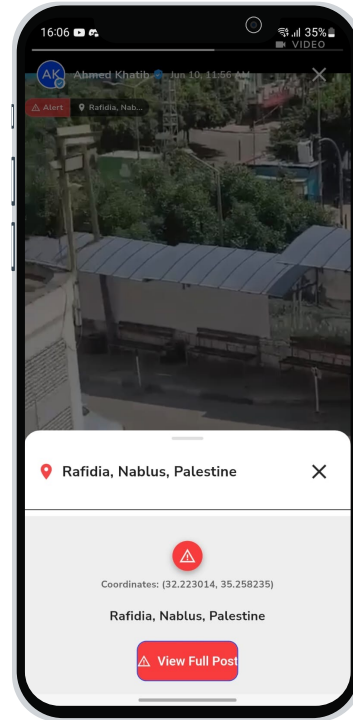
Story Features



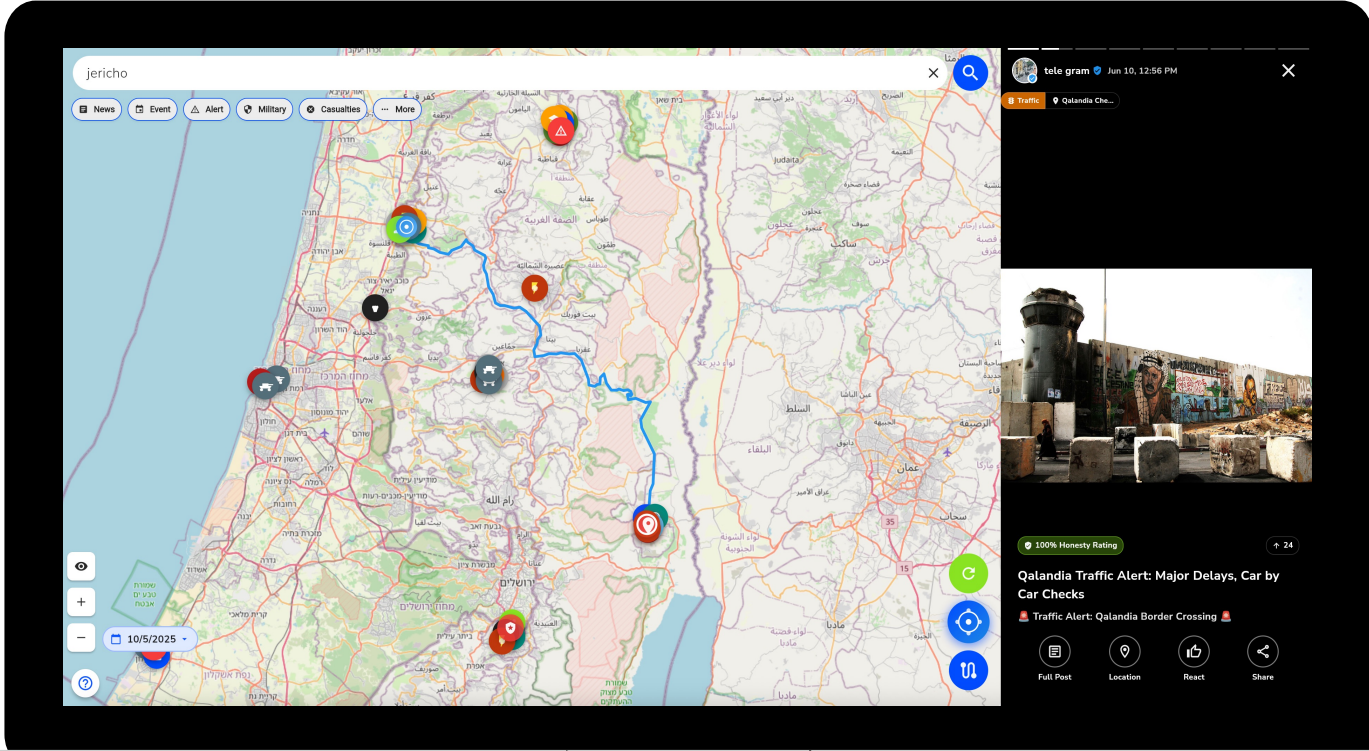
Stories feed



Story viewing



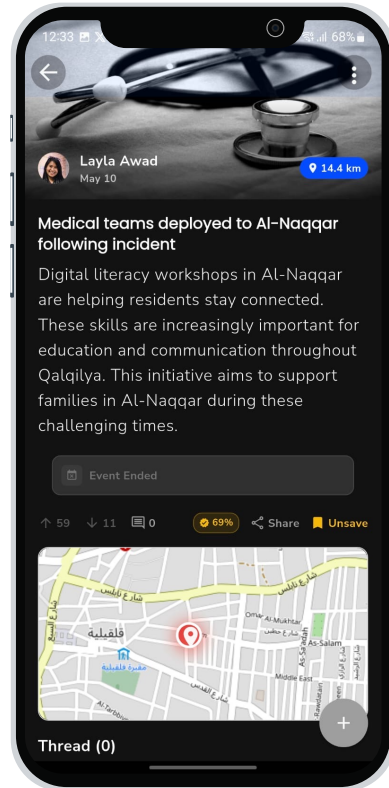
Map Location-based stories



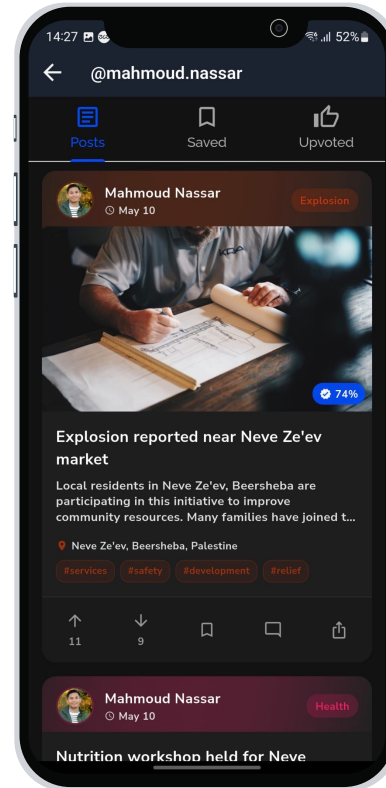
Post Details & Content View

Content Interaction

Post view



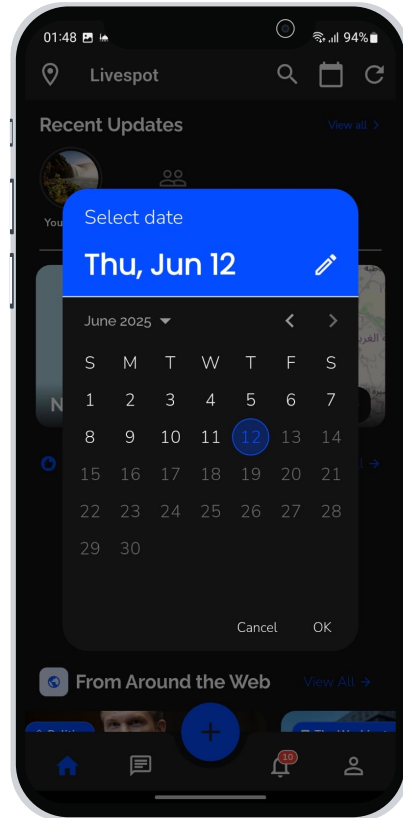
Profile posts



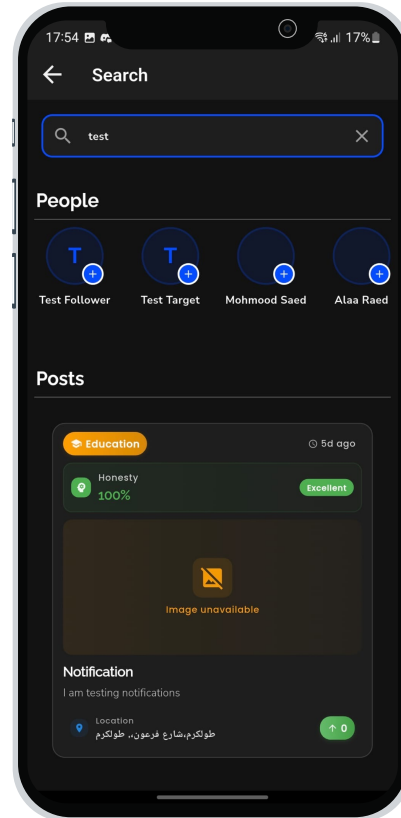
Content Discovery & Filtering

Finding Content

Historical
browsing

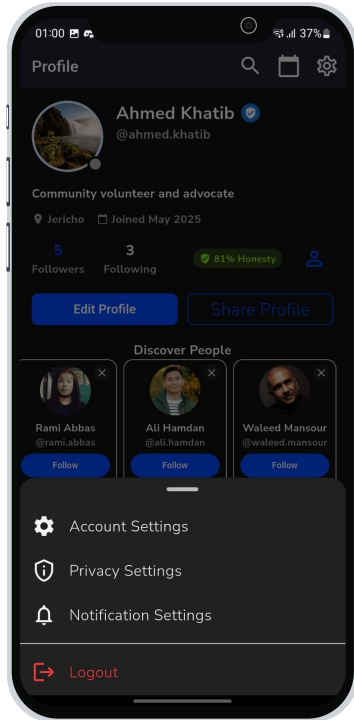


Search
functionality

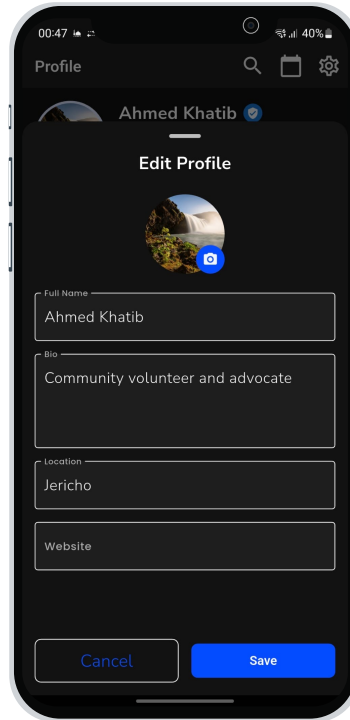


Social Features & Profiles

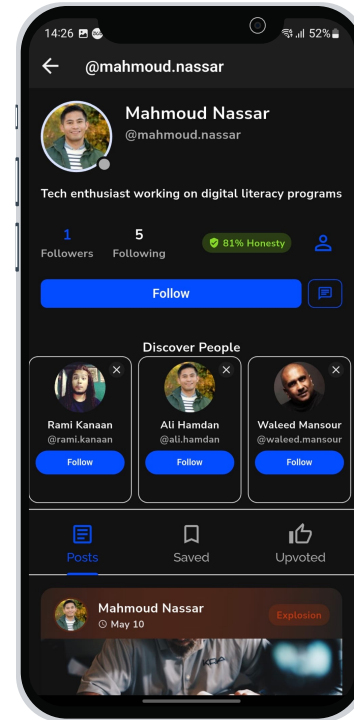
Community Interaction



User profile



Profile editing



Following others

Enter your location

News Event Alert Military Casualties More

10/6/2025

Profile

Ahmed Khatib @ahmed.khatib

Community volunteer and advocate

Jericho Joined May 2025

5 Followers 3 Following 81% Honesty

Edit Profile Share Profile

Discover People

- Farrah Abu-Hasan @farrah.abu-has... Follow
- Wateed Abu-Eid @wateed.abu-eid Follow
- Rami Kanaan @rami.kanaan Follow

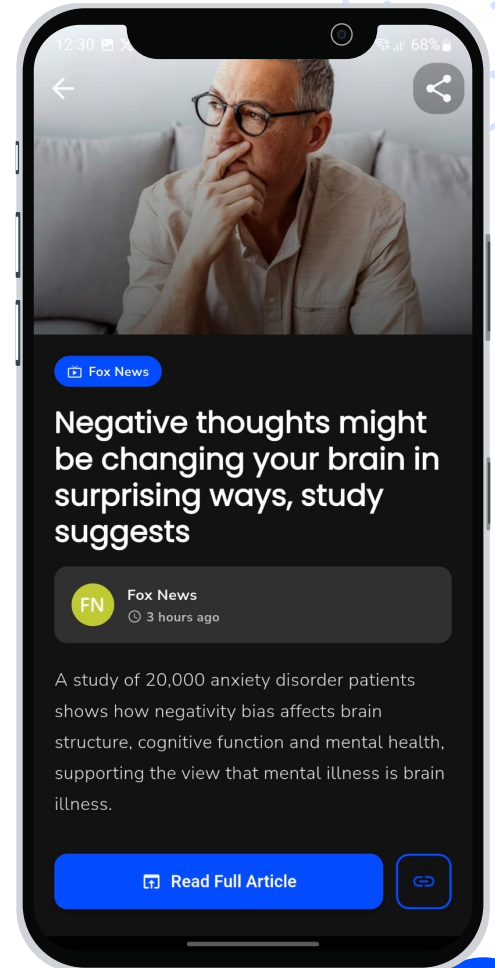
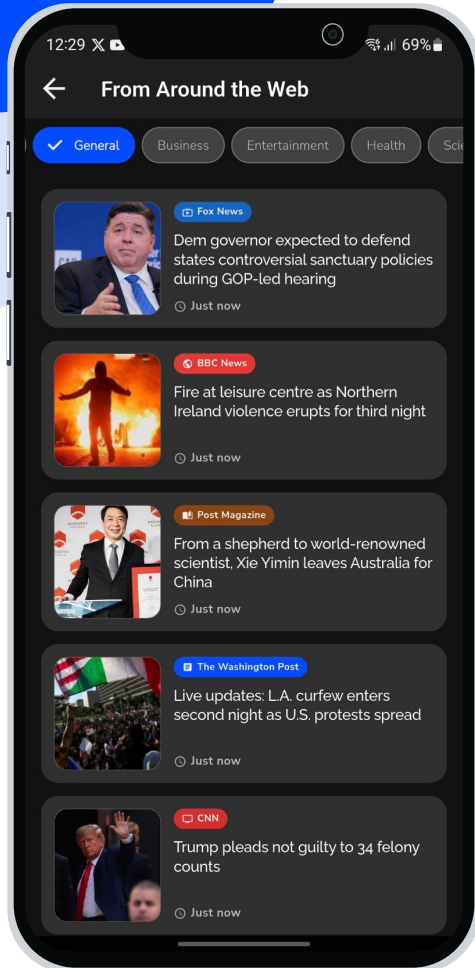
Posts Saved Upvoted

Ahmed Khatib 7h ago Alert

VIDEO

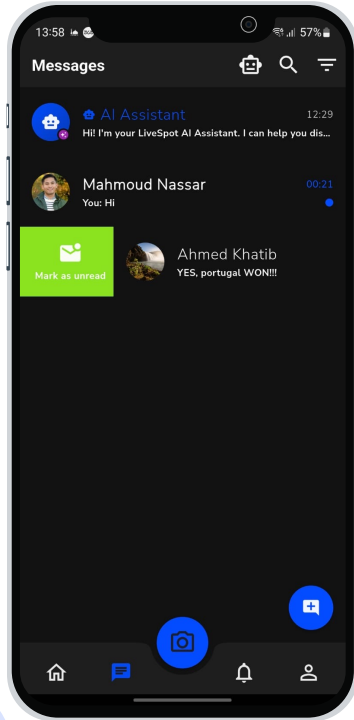
93%

External News Integration

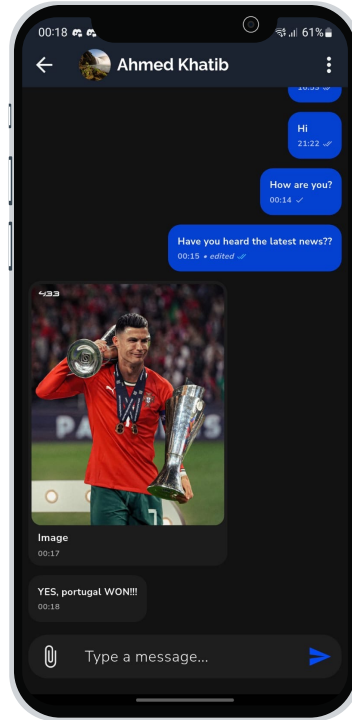


Messaging System

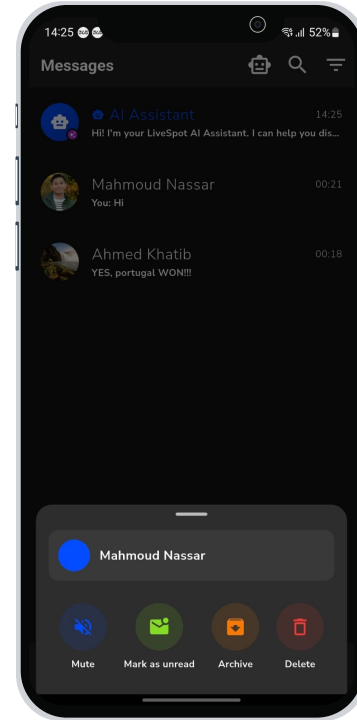
Real-Time Communication



Chat list



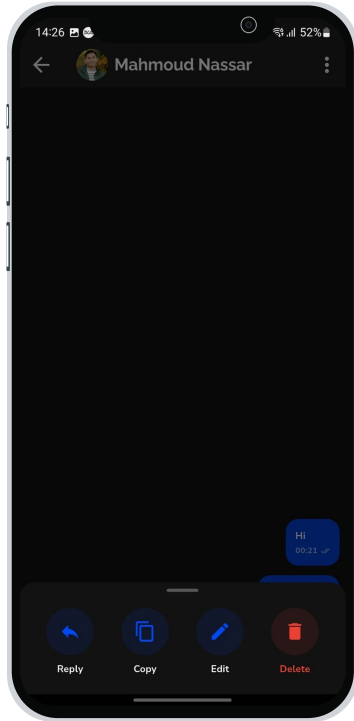
Messaging interface



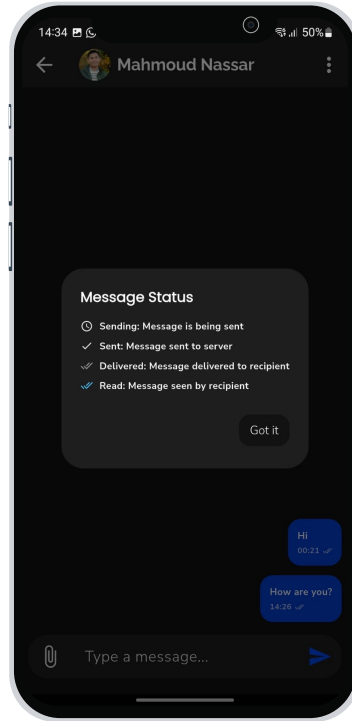
Conversation management

Advanced Messaging Features

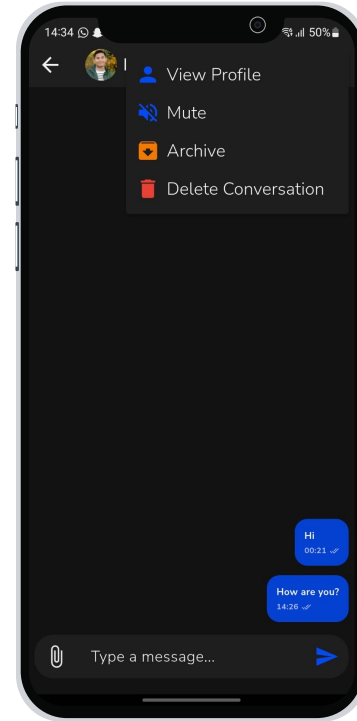
Enhanced Communication



Message actions



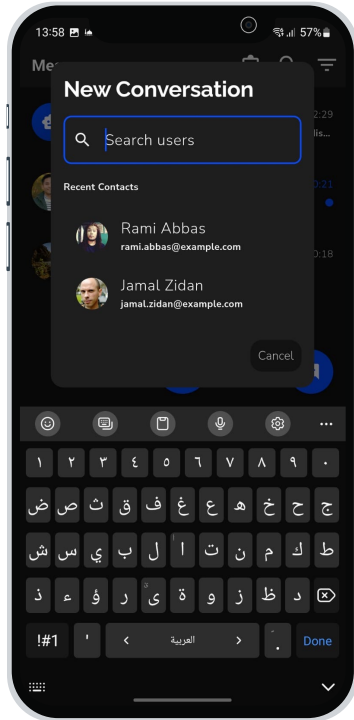
Message status indicators



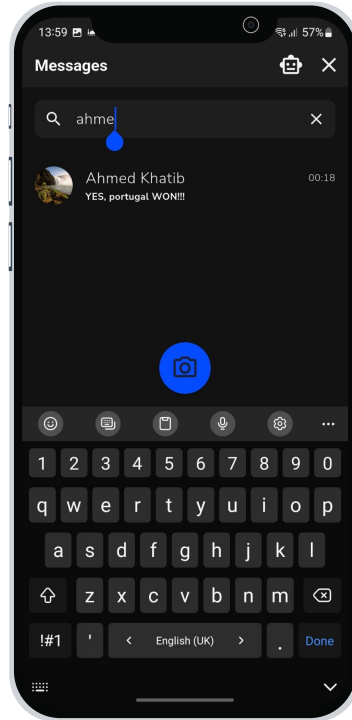
Conversation settings

Messaging Filters & Search

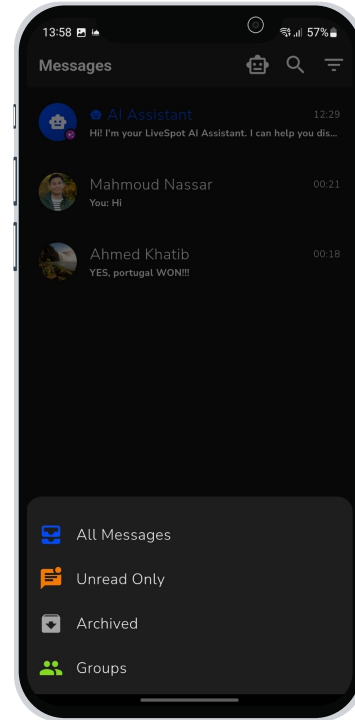
Communication Tools



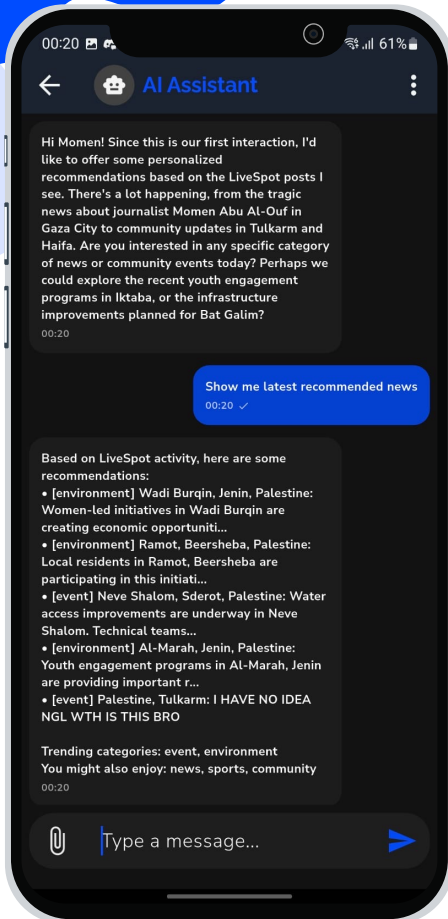
New conversation



Message search

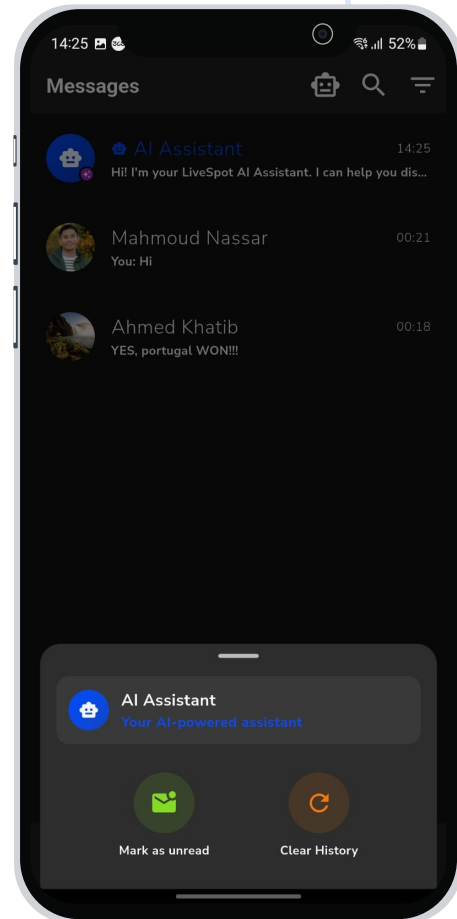


Chat filtering



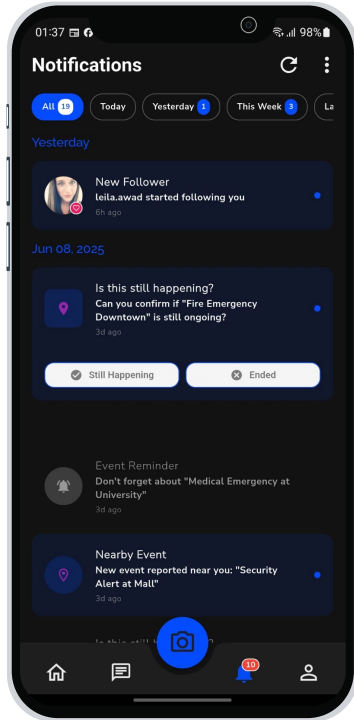
AI Assistant

Intelligent Features

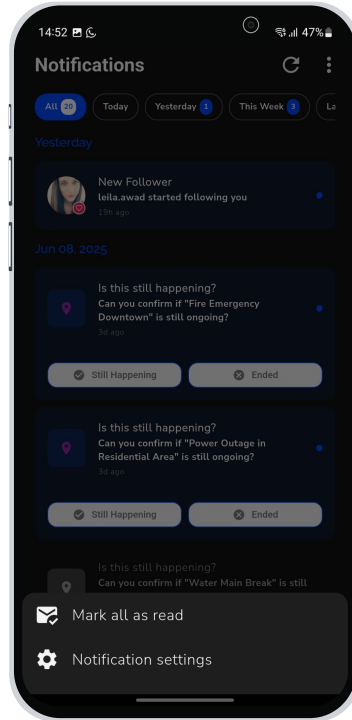


Notification Management

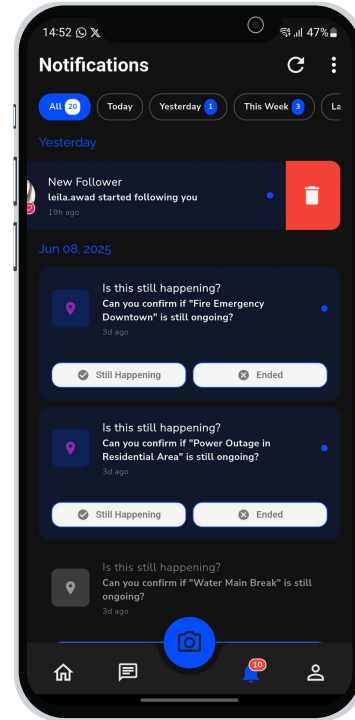
Managing Notifications



Notifications list



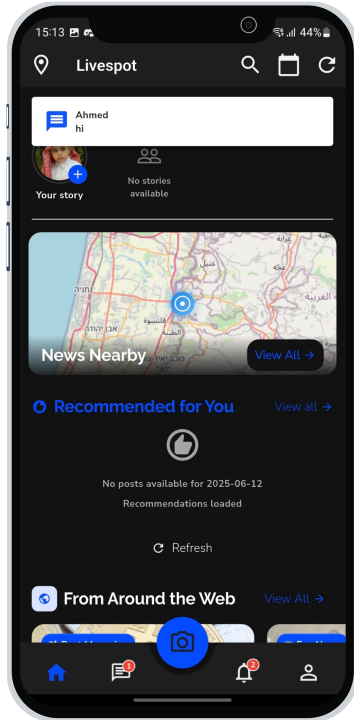
Notification options



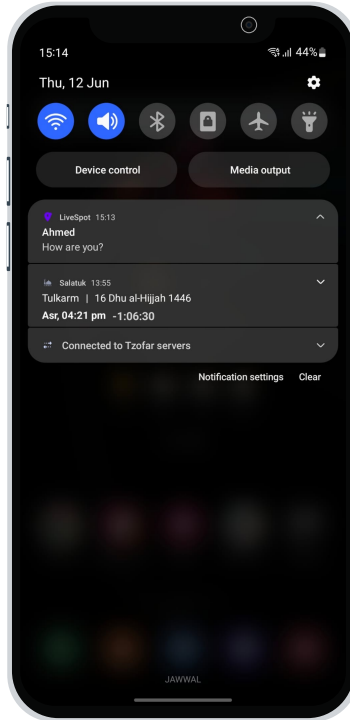
Swipe actions

Notification Display & Alerts

Receiving Notifications



In-app alerts



System Notifications



Push notifications

Enter your location

- News
- Event
- Alert
- Military
- Casualties
- More

Map Legend

Category Icons

- News
- Event
- Alert
- Politics
- Sports
- Health
- Traffic
- Weather
- Crime
- Community
- Disaster
- Environment
- Education
- Other

Special Icons

- Casualties
- Explosion

EDUCATION 90%

Afterschool programs expand in Alef

Health services in Alef, Beersheba are being expanded to meet increased deman...

10/5/2025 at 18:44

[Details](#) [Media](#)

Notifications

- All 20
- Today
- Yesterday 1
- This Week 3
- Last 7 Da

Yesterday

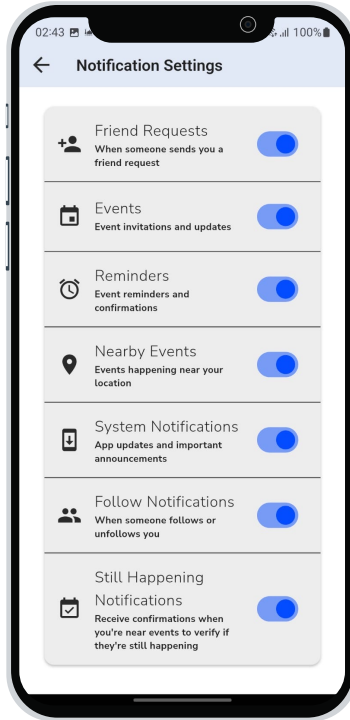
New Follower
leila.awad started following you
20h ago

Jun 08, 2025

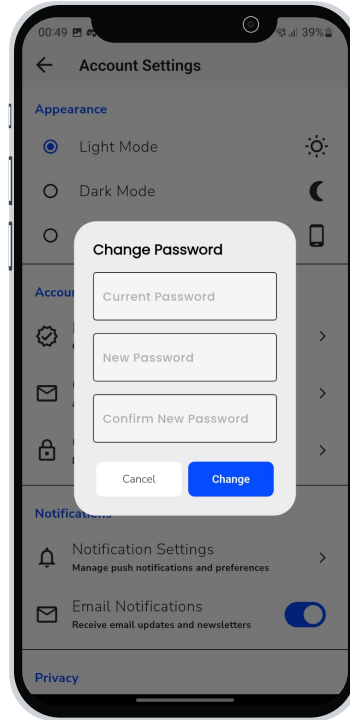
- Is this still happening?**
Can you confirm if "Fire Emergency Downtown" is still ongoing?
3d ago
[Still Happening](#) [Ended](#)
- Is this still happening?**
Can you confirm if "Power Outage in Residential Area" is still ongoing?
3d ago
[Still Happening](#) [Ended](#)
- Is this still happening?**
Can you confirm if "Water Main Break" is still ongoing?
3d ago
[Still Happening](#) [Ended](#)

Settings & Configuration

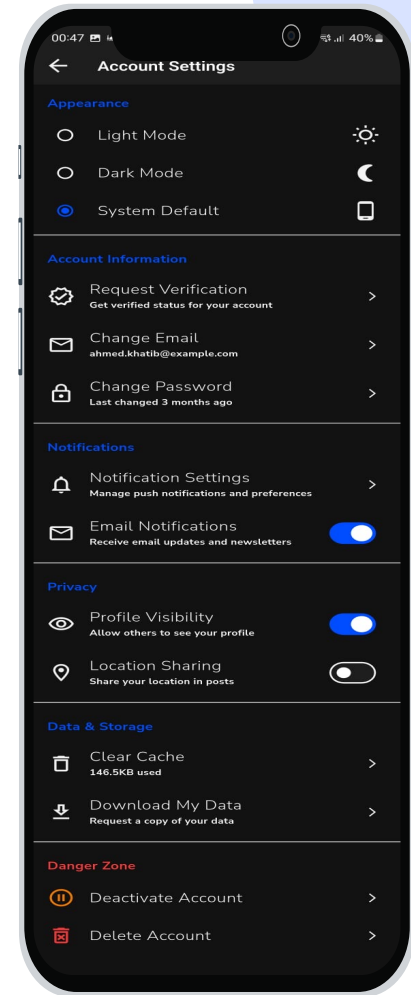
App Management



Notification preferences



Password settings





05

Conclusion
Future Work





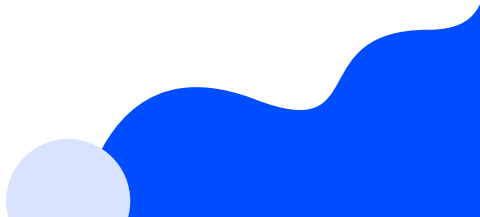
Project Impact

Solving Real Problems:

- Traditional news reporting apps tend to miss ground level perspective.
- It also might arrive too late.
- LiveSpot bridges this gap with location-verified, instantaneous reporting.



Future Recommendation

- **Automated Fact-Checking and Post Filtering**
 - Real-time NLP analysis of posts vs. trusted sources.
 - Image/video deepfake detection with timestamp validation.
 - **Add suggested AI captions on news by checking provided images and locations.**
 - **Danger notification system.**
- 

The slide features a white background with decorative blue elements. In the top right corner, there is a blue circle partially overlapping a larger blue shape, with a white dotted circle inside it. In the bottom left corner, there are two overlapping blue circles, one larger and darker than the other.

Thanks

Do you have any questions?