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VYRO: STUDENT EVENT DISCOVERY AND UNIVERSITY ENGAGEMENT PLATFORM

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Abstract

Students commonly encounter university events, academic opportunities, and institutional updates across separate websites, social-media pages, posters, messaging groups, and registration links. This fragmentation can make opportunities difficult to discover, compare, and track. This paper presents Vyro, a proposed mobile-first student event discovery and university engagement platform designed to bring these activities into one digital space. The platform specification includes student discovery, event search and filtering, university profiles, event saving and registration journeys, official inquiry messaging, university publishing and registration management, and a separate administrative web panel for moderation and verification. The interface uses a dark navy visual theme with purple and cyan accents, reusable cards, and four primary student navigation destinations: Home, Discover, Search, and Profile. Supabase authentication, database, and storage are planned for later phases, with Row Level Security and server-side role checks specified as security requirements. The current Phase 1 work is limited to interface design, screen behavior, and dummy data; it does not claim a deployed application or operational backend. The paper documents the motivation, proposed architecture, major features, design methodology, validation approach, limitations, and future implementation directions.

Keywords— Vyro, student event discovery, university engagement, mobile-first design, event management, user interface, privacy, Row Level Security.

I. INTRODUCTION

University students need timely access to hackathons, seminars, webinars, workshops, cultural activities, sports events, scholarships, and other academic or extracurricular opportunities. Information about these opportunities is often distributed across unrelated channels. Students may need to visit multiple college websites, social-media accounts, messaging groups, and external registration pages to understand what is available. Universities, meanwhile, need a consistent way to present programmes, promote events, answer student inquiries, and manage registrations.

Vyro is proposed as a centralised, student-oriented platform that connects event discovery with institutional information and official communication. Students can browse and search opportunities, follow universities, save events, register, and contact university representatives. Universities are the publishing participants: they can share institutional updates and manage event-related interactions. The design deliberately does not allow students to publish posts or message other students.

The contribution of this work is a Phase 1 design specification for a mobile-first platform, including navigation, interface components, user flows, role separation, trust and safety expectations, and a validation checklist. The project report identifies this phase as design and dummy-data work; therefore, the present paper describes the proposed system and planned validation rather than claiming production deployment or measured user outcomes.

II. PROBLEM STATEMENT AND OBJECTIVES

A. Problem Statement

Students lack a single, approachable interface for discovering and tracking university events and institutional opportunities. Universities need a structured channel to publish accurate information and respond to inquiries. A suitable design must combine discovery,

engagement, registration entry points, and trust cues while remaining clear on a phone-sized screen. It must also distinguish student and university permissions and provide visible reporting and privacy expectations.

B. Objectives

• Centralise discovery of university events and institutional profiles in a mobile-first interface.

• Provide event and college search with category, location, date, cost, and delivery-mode filters.

• Support event saving, calendar access, registration journeys, and official university inquiries.

• Provide universities with publishing, event creation, registration management, inbox, scheduling, and analytics screens.

• Specify separate administrative workflows for reports, institutional verification, and action history.

• Define privacy, role separation, accessibility, and security requirements for later implementation.

III. PLATFORM CONTEXT AND DESIGN RATIONALE

The project report identifies digital event discovery, institutional publishing, interest-based personalisation, and mobile-first design as the main contextual themes. Event cards are specified to expose key information—such as title, organiser, date, mode, city, description, tags, and registration action—without requiring users to open every event. University profiles provide a stable institutional identity, while posts and stories support timely updates.

Personalisation is intended to use a student's selected interests and year of study. During sign-up, users select at least two interests before continuing. The student and university experiences are designed for phone layouts; the administrative panel is a separate web interface. The interface specification emphasises consistent typography, spacing, card patterns, clear primary actions, and loading, empty, error, and confirmation states.

This paper does not present a new empirical literature review or independently validate claims about competing platforms. The design rationale summarises the supplied Vyro Phase 1 project report.

IV. PROPOSED SYSTEM

A. System Overview

Vyro is organised into three interface areas: (1) a student mobile app, (2) a university mobile app, and (3) a separate administrative web panel. The student and university interfaces share a visual language but expose different capabilities. The admin panel is reserved for authorised Vyro team members and is specified as a later-phase component.

Interface area	Main responsibilities	Phase 1 status
Student app	Discover and search events/colleges; follow universities; save and register for events; view calendar; send official inquiries; manage profile and settings.	Screen and interaction design with dummy data
University app	Maintain institutional profile; publish posts and events; manage registrations; answer inquiries; schedule posts; view analytics.	Screen and interaction design with dummy data
Admin web panel	Review reports; approve university verification; record moderation actions.	Conceptual design for a later phase

B. Student Interface

The four primary bottom-navigation destinations are Home, Discover, Search, and Profile. Home presents “Picked for you” recommendations, featured announcements, and a My Calendar entry point. Discover contains For You, Following, and Trending tabs for university-generated content. Search separates Events and Colleges and offers category chips and filters. Events & Calendar is reached contextually from Home or Search, while Saved Events is accessed through a statistic on the student profile.

C. University Interface

University-side screens support photo, video, carousel, event, and story publishing with captions. The event creator is specified to capture schedules, venues, fees, seat limits, and registration methods. Additional screens cover registration lists and export, a shared university inbox, quick replies and FAQ answers, scheduled posts, administrative roles, and analytics such as views, followers, registrations, and student cities.

D. Administrative Interface

The separate admin web panel is specified to contain a report queue with New, Under review, Action taken, and Dismissed states, university verification approvals, and an action log. Potential moderation outcomes include warning, restricting messaging, blocking, suspending, or removing an account. These are planned workflows and are not represented as live services in Phase 1.

V. SYSTEM DESIGN AND WORKFLOW

A. Navigation and Interaction

The welcome screen provides Log in and Sign up, and sign-up first asks the user to select Student or University. Student sign-up captures identity, username, year of study, optional semester, institution and location, email, password, interests, and an optional profile picture. University sign-up captures institutional identity, location, official email, password, and an optional profile picture. The described flows are screen specifications and do not imply that live authentication is implemented.

B. Event Discovery and Registration

Search supports event and college results, categories such as hackathons, seminars, webinars, workshops, cultural activities, sports, career counselling, and scholarships, and filters for field, city, date, free/paid status, and online/on-campus mode. Event details include organiser, date, venue, team size, description, tags, a report option, and registration action. If registration uses an external link, the interface displays a safety prompt before opening the organiser's website. If registration is handled within Vyro in a future implementation, the intended flow confirms registration and prevents duplicate registration.

C. Messaging and Trust Features

Messages are framed as “Official Inquiries” and organised as one inbox per university. Student-to-student messaging is excluded. Reporting entry points are specified for relevant profiles, posts, comments, events, and chats; chat reports allow the reporter to select which messages to attach. Blocking, verification indicators, community guidelines, privacy settings, and clear warnings about external links are included in the design.

D. Proposed Technical Architecture

The supplied report identifies Supabase as the intended provider for authentication, database, and storage in later phases. It specifies a separate user_roles table, server-side role checks, and Row Level Security on every database table. Administrative access must be checked on the server rather than relying on editable profile fields. HTTPS, encryption at rest, input validation, safe media-upload checks, secret management, and rate limits are also specified as later implementation requirements. These technologies and controls are planned architecture, not verified deployed functionality.

VI. METHODOLOGY

The Phase 1 methodology is design-oriented and proceeds through requirements interpretation, screen and navigation definition, interaction-flow specification, reusable visual component definition, trust and safety requirements, and validation planning.

Phase	Activities	Expected output
1. Requirements analysis	Identify users, roles, core journeys, constraints, and out-of-scope functions.	Requirements and scope boundary
2. Interface design	Define visual theme, navigation, screen layouts, cards, controls, and states.	Consistent mobile-first screen specification
3. Flow specification	Document sign-up, navigation, interest selection, registration, and reporting journeys.	User-flow diagrams and interaction rules
4. Trust and privacy design	Specify reporting, blocking, verification, privacy, role separation, and RLS requirements.	Security and safety requirements for later implementation
5. Phase 1 validation planning	Review visual consistency, navigation coverage, copy, and state coverage using dummy data.	Acceptance checklist and next-phase baseline

The current phase uses dummy data. No actual sample size, usability-study result, production performance benchmark, or operational backend test result is reported in the supplied project document.

VII. IMPLEMENTATION TECHNOLOGY AND REQUIREMENTS

The proposed backend service is Supabase for authentication, database, and storage in later phases. The project report does not identify a completed live backend or a confirmed production deployment stack for the Phase 1 screens. The central implementation requirement is that the student and university experiences remain mobile-first while the admin panel remains a separate web interface.

Component	Specified design/technical requirement
Student navigation	Home, Discover, Search, Profile
Discovery	Event and college search; categories and filters; saved events and calendar entry points
University tools	Publishing, event creation, registrations, inbox, scheduling, analytics
Admin tools	Report queue, verification decisions, action history
Security	Separate roles table, server-side role checks, RLS on every table
Usability	Readable contrast, touch-friendly controls, labelled actions,

	focus/selected/disabled states
Scalability readiness	Pagination, lazy loading, compressed media, indexed queries, duplicate-registration prevention

VIII. PHASE 1 VALIDATION PLAN

The supplied report defines validation as a review of the designed screens and dummy-data journeys. The intended checks include screen coverage, correct navigation destinations, consistency of labels and visual components, interest-selection gating, event registration prompts, report and block entry points, privacy messaging, and loading, empty, error, and confirmation states.

Validation area	**Acceptance check**
Navigation	All four bottom-bar destinations and contextual entry points are represented consistently.
Interest selection	Continue remains disabled until at least two interests are selected.
Search	Event/college result tabs, category chips, filters, and empty-state text are specified.
Registration	External links show a safety prompt; cancellation returns to the event flow.
Role separation	Students browse and engage but do not publish posts or message other students.
Trust and safety	Report, block, verification, and community-guideline entry points are represented.
Privacy/security readiness	Future backend requirements include server-side role checks and RLS on every table.
State coverage	Loading, empty, recoverable error, and confirmation states are defined.

These are acceptance criteria, not evidence that all checks have passed in a deployed application. The project report explicitly states that live account creation, persistent records, real-time chat, file upload, email delivery, report processing, role enforcement, and database security behavior are not complete in Phase 1.

IX. DISCUSSION

Vyro's main design value is the consolidation of student discovery, institutional publishing, event actions, and official inquiries into one coherent interface model. The separation of student, university, and administrator responsibilities makes the intended permissions explicit. The four-item navigation, contextual calendar and saved-event access, and consistent event cards are intended to reduce navigation complexity on mobile devices.

Trust and safety are treated as product requirements rather than optional additions. Verification indicators, external-registration warnings, reporting and blocking, private student email, and server-side administrative role checks are all specified. At the same time, the benefits remain design intentions until the relevant backend and interface workflows are implemented and tested.

A key limitation is the lack of empirical evaluation in the current phase. The supplied report does not provide usability-test participants, task-completion rates, deployment metrics, or quantitative evidence of improved event discovery. Future work should evaluate the interface with students and university representatives and verify the security and reliability of implemented backend controls.

X. LIMITATIONS AND FUTURE SCOPE

The present work is limited to a Phase 1 design specification and dummy-data behavior. It does not claim live authentication, persistent profiles or events, operational media uploads, real-time messaging, working registration records, active report moderation, functioning email alerts, or a deployed administrative panel. The specification also does not provide measured user acceptance or production scalability results.

The project report proposes later implementation of Supabase authentication, database and storage integration; persistent profiles, events, saves, follows and registrations; real messaging; report queues and verification decisions; email alerts; server-side role enforcement and RLS; and administrative action logging. Additional priorities include pagination, lazy loading, media optimisation, database indexing, rate limits, accessibility checks, and evaluation of the product with intended users. The report identifies a long-term target of scaling toward one million users, but this is a target rather than a demonstrated capacity result.

XI. CONCLUSION

This paper presented Vyro, a proposed mobile-first student event discovery and university engagement platform based on the supplied Phase 1 project report. The design brings together event and college discovery, interest-oriented recommendations, institutional profiles, event registration journeys, official inquiries, university publishing and management tools, and a separate administrative moderation interface. It also documents role separation, privacy, reporting, verification, and security requirements intended to guide future implementation.

The current contribution is a structured design and validation baseline, not a report of a fully operational product. The next phase should implement the specified authentication, data, messaging, registration, and moderation workflows; enforce security controls on the server; and evaluate usability and reliability before making claims about effectiveness or scale.

REFERENCES

[1] Vyro Project Report, “Vyro: Student Event Discovery and University Engagement Platform,” Phase 1 project report supplied for this paper, academic year 2026–27.

[2] Supabase, documentation for Authentication, Database, Storage, and Row Level Security. Identified in the Vyro project report as intended implementation documentation for later phases; detailed source/version information was not supplied.

[3] Mobile interface, interaction, accessibility, and privacy requirements summarised from the supplied Vyro Phase 1 project report. These are project design requirements rather than independently validated research findings.

ACKNOWLEDGMENT

The paper is prepared from the supplied Vyro project report. The authors and institutional details are reproduced from that source; all implementation status statements are kept within the scope described in the report.