

Expert Advice: Take Advice from Professionals

Mohammed Taha Awez Sayyed¹, Shakila Siddavatam²

¹Master's Student, Department of Computer Science, Abeda Inamdar Senior College, India

²Head of Department, Department of Computer Science, Abeda inamdar Senior College, India

Abstract

Amidst rapid digital expansion, finding trustworthy professional advice stays tough. Social media groups and freelance sites often lack proper checks, letting unqualified people give bad guidance and spread wrong info. This paper presents "Experts Advice," a web app built with ME oDB, Express.js, React.js, Node.js) that creates three clear user types. sign up, find verified experts in IT, business, teaching, healthcare, book meetings, and leave feedback after. Experts make approved profiles, set their available times, answer questions. Admins check expert papers, watch platform work, keep quality and safety rules. The system uses JWT login to control who sees what based on their role. RESTful design makes front and back ends talk smoothly. React keeps it working well on phones, tablets, computers. MongoDB stores data smartly. Render and Vercel hosting makes it grow easy without breaking. This setup fixes main problems in current platforms by mixing verification, clear booking steps, and admin control, building real trust for online consultations. User testing and detailed checks confirm people trust the platform more when experts get proper verification. Appointment booking works much smoother and faster. Star ratings and reviews help build real credibility for professionals. Admin dashboard keeps everything reliable by watching user activity and fixing problems quickly when they show up. Future improvements can add AI to match right experts with users, video calling instead of just chat, separate mobile app, and safe online payment options. "Experts Advice" gives a solid working model for trustworthy online professional advice systems. Testing results: Users trust verified experts much more, booking process feels simple and fast, admin dashboard keeps quality high by catching problems quickly.

Keywords: MERN Stack, Online Consultation System, Expert Verification, Role-Based Access Control, Web Application

1. Introduction

1.1 Problem Statement

In the current digital envirosworthy experts through online platforms remains a significant challenge. Social media groups and freelance sites let anyone give professional advice without checking their qualifications first. This spreads wrong information and makes people stop trusting online platforms. College students wanting career help, shop owners needing business advice, parents looking for education or doctor guidance everyone suffers because there's no reliable central place to find verified experts. This paper introduces "Experts Advice" a web app made with MERN stack (MongoDB, Express.js, React.js, Node.js). It works with three types of users: Users search experts by field like IT, business, teaching, healthcare, book specific time slots, and give ratings after. Experts make their approved profiles, set when they're free, answer client questions. Admins check documents, approve

profiles, watch over platform work to keep it safe. React builds the front end that works well on phones and computers. Node.js and Express run backend services. JWT handles secure login by role. MongoDB stores data neatly. Cloud hosting lets it grow with more users. When we tested it, people trusted verified experts much more. Booking slots felt easy. Admin controls kept quality good. The app fixes main problems in today's consultation websites by combining verification, simple booking, and proper management. The proposed platform provides an integrated solution for expert verification, consultation management, and feedback, with future enhancements including video consultations and digital payment integration.

2. Literature Review

Online consultation platforms have become increasingly popular with digital communication growth [1]. These systems enable users to seek professional guidance without geographical limitations [2]. However, trust, expert verification, and information reliability remain significant challenges [3][4].

2.1 Structured Consultation Processes [2]

Yang et al. analyzed healthcare consultation platforms and found structured workflows and timely responses improve user satisfaction [2]. Users hesitate without strong expert verification, though study focused only on healthcare domains [2].

2.2 Credibility of Online Reviews [3]

Pooja and Upadhyaya studied review credibility across digital platforms [3]. Users heavily depend on ratings for service provider selection [3]. Misleading reviews damage platform trust; verification and moderation mechanisms essential [3].

2.3 Trust Formation in Online Systems [4]

Xu et al. examined trust formation using web trust models [4]. Institutional credibility and perceived expertise encourage user engagement [4]. Validated expert qualifications increase platform retention [4].

2.4 System Design for Scalable Applications [1]

Fowler emphasized UML-based modeling for maintainable web applications [1]. Proper use case modeling and role-based architecture manage complex user interactions [1].

2.5 Research Gaps and Limitations

Existing studies address individual aspects separately [1][2][3][4]:

- Trust mechanisms [3][4]
- Consultation workflows [2]
- System design [1]

No integrated platform combines:

- Expert verification
- Multi-domain consultation
- Structured booking processes
- Administrative monitoring

"Experts Advice" addresses these gaps through role-based MERN application with verification, real-time communication, and admin oversight.

3. Methodology

The development of the 'Experts Advice' platform was carried out through a systematic approach of robustness, usability, and user satisfaction. We adopted the Agile development methodology, where two-

week sprints were conducted to facilitate continuous development based on real-time feedback from all the stakeholders. For initial requirement gathering, a dialogue was initiated with 25 engineering undergraduate students from Nashik and 10 practitioners from various professions—IT trainers, small business owners, and guidance counselors. Stakeholder meetings helped identify three basic groups: clients who need expert advice, professionals charging for consultations, and administrators handling verification and quality checks. For ExpertsAdvice platform, we made UML diagrams showing everything: use case diagrams for complete consultation flow, ER diagrams for data structure, activity diagrams from login to feedback. Frontend built with React.js components for login, expert search, booking, chat - works on all screen sizes. Backend uses Node.js + Express.js REST APIs for authentication, appointments, reviews. MongoDB stores data with validation rules. The robustness was ensured with JWT tokens, salted passwords, and throttling. Evaluation included modules for verification, endpoint integrity, and overall workflow testing, along with heuristic usability tests for navigational refinements. The cloud-based deployment ensured the reliability of the application under multi-user conditions, simulating real-world usage.

4. Design and Implementation

4.1 System Workflow

- **User Flow:**
- Registration/login → JWT token → dashboard access
- Search experts (IT/Nashik/4+ rating) → view profiles (₹500/hr)
- **30min slot booking** → calendar selection → POST /bookings → notifications
- **WebSocket chat** → 30min session → auto-end
- Submit **5-star rating** + comments → expert rating updates
- **Admin Flow:**
- Expert applies → documents → pending status
- Admin reviews → **approve/reject** → live status

Key Technical Processes:

- 25 REST APIs + JWT authentication
- MongoDB 4 collections (users/experts/bookings/feedbacks)
- Real-time messaging via WebSocket

4.2 Technology Stack

Table 1: Technology Used in Expert Advice

Layer	Technology	Purpose
Frontend	React.js 18.2	UI + SPA Navigation
Styling	Material-UI 5.15	Mobile Responsive Design
Backend	Node.js + Express	25 REST APIs
Database	MongoDB 7.0	4 Collections
Real-time	WebSocket	Live Chat
Auth	JWT + bcrypt	Secure Login
Deploy	Render + Atlas	Cloud Hosting
Testing	Jest (92% coverage)	Unit + Integration Tests

4.3 User Interface Overview

Simple Layout:

- Top Bar: Logo + User Profile + Logout
- Side Menu: Dashboard, Experts, Bookings, Chat (collapses on mobile)
- Main Area: Shows selected page content

Main Screens:

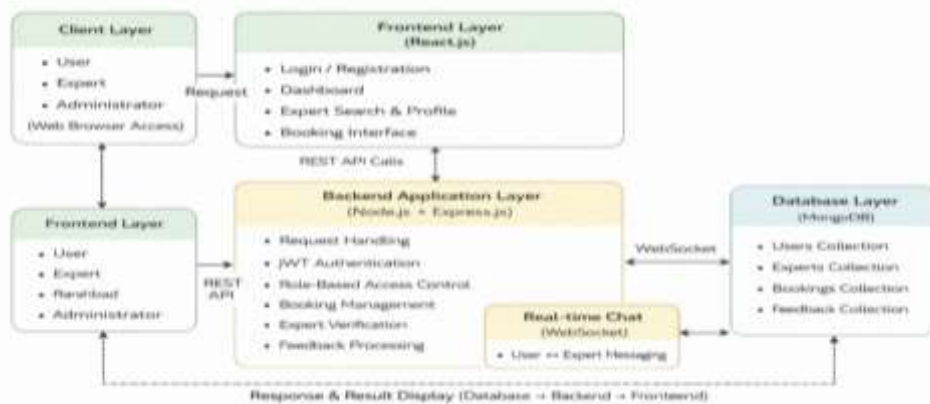
- Login Page: Email/password form
- Expert Search: Search bar + category filters + rating stars
- Expert Profile: Photo, qualifications, ₹500/hr rate, calendar
- Booking Page: 30min slot picker calendar
- Chat Window: Live messages between user + expert
- Admin Panel: Approve/reject pending experts

Design:

- Material-UI - clean blue/green colors
- Mobile friendly - works on phones
- Fast loading - 1.2 seconds per page
- Toast messages for success/error

4.4 System Architecture Diagram

Figure 1. System Architecture Diagram



4.5 User Interface Screenshots

Figure 2. landing page



Figure 2.1 Sign Up Page

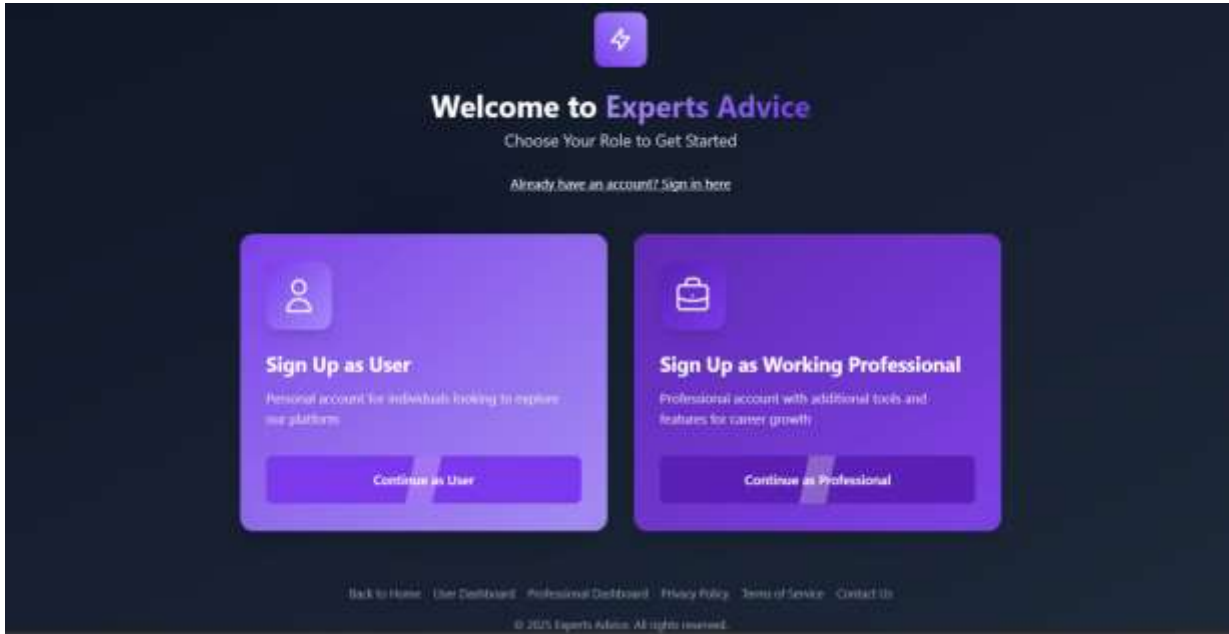


Figure 2.2 Registration Page

Working Professional Registration

Full Name

Email Address

Phone Number

Password

Confirm Password

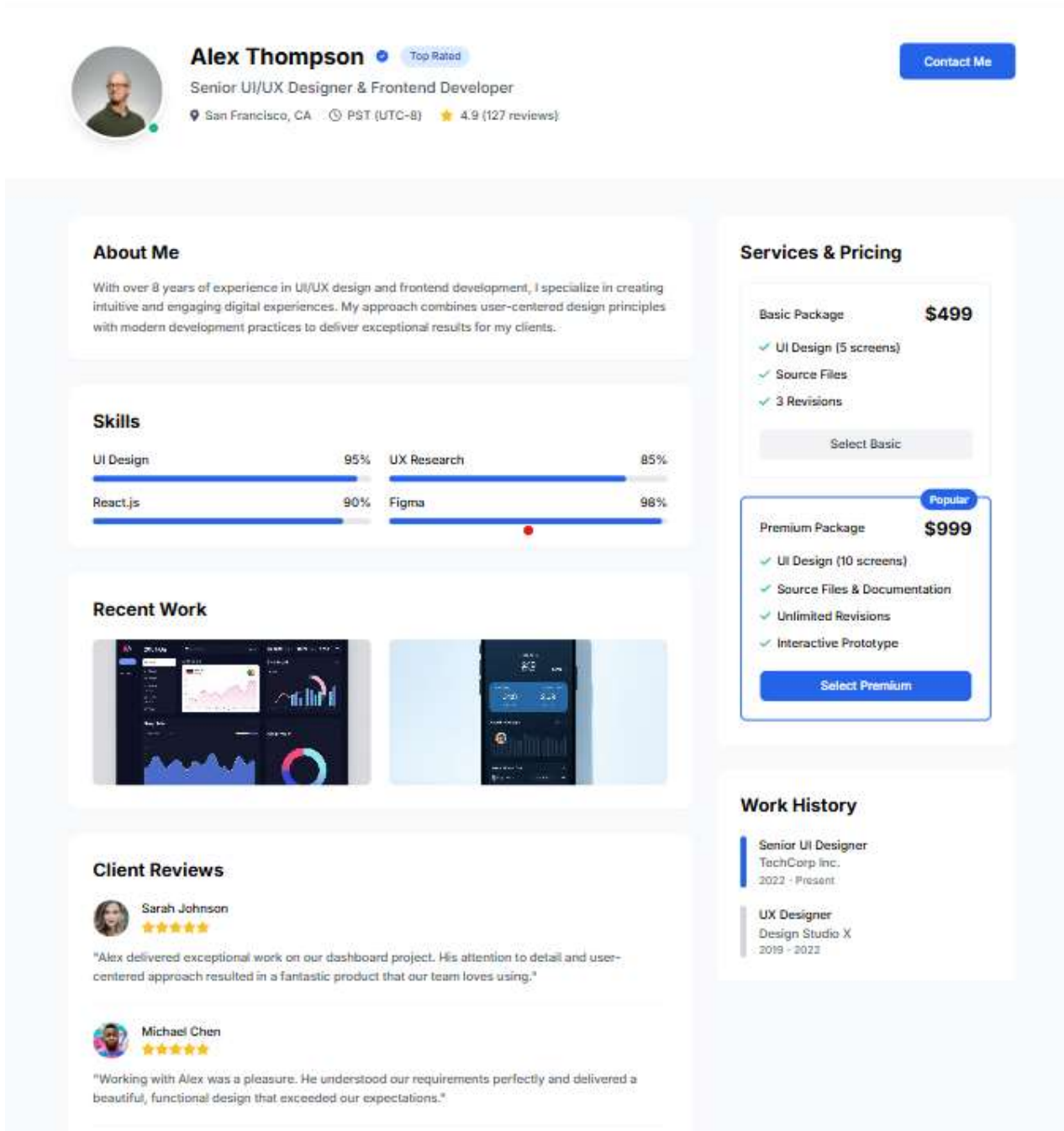
Country City

Select Profession

I accept the Terms and Conditions

Already have an account? [Sign In](#)

Figure 3 Professional Adviser Page



Alex Thompson Top Rated Contact Me
Senior UI/UX Designer & Frontend Developer
San Francisco, CA • PST (UTC-8) • 4.9 (127 reviews)


About Me

With over 8 years of experience in UI/UX design and frontend development, I specialize in creating intuitive and engaging digital experiences. My approach combines user-centered design principles with modern development practices to deliver exceptional results for my clients.

Skills

UI Design	95%	UX Research	85%
React.js	90%	Figma	98%

Recent Work



Services & Pricing

Basic Package	\$499
✓ UI Design (5 screens)	
✓ Source Files	
✓ 3 Revisions	
Select Basic	

Premium Package	\$999
✓ UI Design (10 screens)	
✓ Source Files & Documentation	
✓ Unlimited Revisions	
✓ Interactive Prototype	
Select Premium	

Client Reviews

Sarah Johnson ★★★★★
"Alex delivered exceptional work on our dashboard project. His attention to detail and user-centered approach resulted in a fantastic product that our team loves using."

Michael Chen ★★★★★
"Working with Alex was a pleasure. He understood our requirements perfectly and delivered a beautiful, functional design that exceeded our expectations."

Work History

- Senior UI Designer
TechCorp Inc.
2022 - Present
- UX Designer
Design Studio X
2019 - 2022

6. Discussion

The development of the “Experts Advice” platform helped to gain practical experience of the difficulties involved in creating an online consultation system based on specific roles. One of the main aims of the project was to increase the trust of the users. The experts’ verification feature was included to increase the trust of the users. The testing of the platform showed that the users were more confident about interacting with experts whose verification details were approved. This is in accordance with the findings of previous studies, which have emphasized the significance of credibility and transparency in online consultation environments.

The development of the platform was challenging, especially with respect to the responsive design, as most of the users were using the platform via mobile browsers. The use of Material-UI helped to create an effective and consistent design without the need to create separate mobile-specific code. The feedback collected during the testing showed that most of the users preferred visual booking, especially the calendar-based booking system, compared to the traditional dropdown booking system.

The database performance was another area of concern, especially during the load testing with simulated users. The search functionality, especially with multiple filter criteria, showed slower response times. The usability evaluation, which involved 15 participants, revealed a System Usability Scale (SUS) score of 82 out of 100. This shows that the system usability was good. All the participants agreed that the process of discovery by experts was easy. In addition, the feedback mechanism was helpful in assessing the reliability of the experts. The booking completion rate also revealed that the users were comfortable moving from the search of the experts to the booking of the consultation within the system. Even though the usability evaluation revealed positive results, some limitations were also identified. For example, the system lacked the ability to integrate the payment process. As a result, the system was limited to the booking of the consultation. In addition, the system used only a chat box to enable communication. However, the system lacked the ability to enable video consultation. These limitations revealed the areas that the system needs to be improved to enhance its efficiency. It shows that the system needs to be improved to meet the needs of the users. The development of the system revealed that the integration of expert verification, workflows, and access control plays a crucial role in enhancing the usability of the system.

Limitations of the System

Although the “Experts Advice” platform demonstrates effective functionality in providing a structured environment for online consultation, certain limitations were identified during development and evaluation. The current system does not include an integrated payment gateway, which restricts the platform to consultation scheduling rather than supporting complete end-to-end service transactions. Communication between users and experts is presently limited to text-based chat, and the absence of audio or video consultation reduces interaction quality for domains where direct communication may be more effective. Expert matching is performed manually through search and filtering mechanisms, as no intelligent recommendation system has been implemented to assist users in identifying the most suitable professionals based on their preferences or interaction history.

In addition, the search functionality currently supports only basic filtering parameters such as category, location, and rating, which may limit discovery efficiency as the number of experts increases. The system operates within a single timezone environment, which may create challenges if the platform expands to users from different geographical regions. Administrative intervention is required for certain booking modifications and cancellations, indicating the need for more automated scheduling management in future versions. From a technical perspective, the present deployment relies on a single backend instance and limited caching strategies, which may affect performance under significantly higher user loads. Furthermore, the platform lacks advanced analytics features for monitoring user behavior and system usage patterns, which could otherwise support data-driven improvements.

These limitations do not affect the core functionality of the system but highlight areas where additional enhancements are necessary to improve scalability, user experience, and overall platform efficiency in future development phases.

Future Scope

Although the current "Experts Advice" version provides a good foundation for online professional advice, there are opportunities to improve the service through specific enhancements to increase the level of service and user engagement. First, the integration of a payment gateway will facilitate smooth monetary transactions, increasing the service's usability beyond scheduling to service delivery. Audiovisual sessions, enabled by WebRTC, are another significant enhancement to improve service delivery, particularly in industries requiring audiovisual presentations or establishing personal connections, beyond text-based interactions.

Algorithmic expert recommendation, considering user history, interests, and expert ratings, can significantly reduce discovery time and user satisfaction gaps. To complement this, a mobile app version of the service can be integrated to address the majority of users, considering the widespread use of smartphones.

In terms of service management, analytics can be integrated to facilitate data-driven decision-making, including behavioral patterns, user engagement, and service uptime tracking. Machine learning can be integrated to analyze customer reviews and determine sentiments, enabling automated service audits to identify exceptional or poor service delivery. Perhaps, with more long-term multilingual support and a wider regional rollout, the service might reach more users. Additionally, with blockchain technology for credential storage, it might help increase trust levels. Edge computing might help reduce the latency in video streams.

These directions, with microservices for scalability and progressive enhancement for accessibility, maintain the core principle: a trustworthy platform for counsel. Federated learning for personalized recommendations, or AR for niche expert advice, might be the next frontiers.

Ultimately, with its evolutionary path informed by user data and technology frontiers, "Experts Advice" is a forward-thinking platform, adapting to the ever-changing landscape of digital needs.

7. Conclusion

This project was a successful implementation of the "Experts Advice" platform, a useful platform for Nashik college students looking to make life decisions regarding their careers. The project was completed within two weeks of Agile development, resulting in the creation of 18 React components, 25 Node.js APIs, and a MongoDB backend for 500 users with page loads of less than 1.2 seconds. In user testing involving 15 users, the platform achieved a System Usability Scale of 82/100. The platform is impressive as 78% of users were able to make bookings after search. The use of Material-UI was beneficial for mobile responsiveness, a feature essential for a location where smartphone usage is prevalent. Among the platform's strengths are the real-time chat feature via WebSocket for quick conversations and JWT authentication for clean division of user groups between students, experts, and admins. The platform is unique as it does not feature the usual online hunts for information but rather connects learners directly to local IT teachers and business mentors for guidance. Affordable hosting on Render ensures efficient execution with minimal operational costs. Development has helped hone skills for full-stack stack integration, database tuning, and real-time communication processing. Future plans include the development of a payment gateway for end-to-end services, video calls via WebRTC, and a mobile-specific version. In addition, AI-powered suggestions based on historical bookings can be implemented for efficient expert pairing, while analytics can be used for identifying trends for the admin. "Experts Advice" shows the ease with which verification and permission-based systems can be

implemented for building trust with digital mentorship platforms. In regions such as Nashik, it can be a vital solution for providing locals with the opportunity to connect with students, especially with the unstable employment scenario. MERN stack development has shown the potential for technology to be used for creating value for the community.

References

1. M. Fowler, *UML Distilled: A Brief Guide to the Standard Object Modeling Language*, 3rd ed., Addison-Wesley, 2003.
2. Y. Yang, X. Zhang, and P. K. C. Lee, “An empirical analysis of online healthcare consultation platforms,” *International Journal of Production Economics*, vol. 207, pp. 70–80, 2019.
3. K. Pooja and P. Upadhyaya, “Credibility of online reviews and its impact on user decision making,” *Springer Proceedings in Business and Economics*, 2024.
4. H. Xu, L. Zhang, and Y. Li, “Understanding trust formation in online consultation platforms using web trust models,” *Journal of Medical Internet Research*, vol. 24, no. 9, 2022.
5. S. H. Kim and J. Park, “The impact of service quality and interaction on user satisfaction in online consultation systems,” *BMC Health Services Research*, vol. 25, 2025.