Transforming Admission Queries Through Digital Innovation

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ABSTRACT

Introducing the TACI Query Management Portal. Now live at Tahseen Ahmad Cheema Institute: one smart portal on web, Android and iPhone that turns every admission, job, short-course and vendor inquiry into a tracked lead with an owner, a status and a next step. Every query counts. Designed and developed in-house by Dr. Maria Aslam.

Keywords — AI, TACI, Whatsapp, AI Agent, Android, iOS

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Admission inquiries are the first conversation an institute has with its future students. This article presents the TACI Query Management Portal, an in-house platform on web, Android and iPhone that brings every admission, recruitment, short-course and vendor inquiry into one tracked workflow, together with the WhatsApp AI agent that now serves as its front door. Together they replace scattered spreadsheets with real-time visibility, accountable follow-up and a better experience for applicants.

Introduction

In a competitive admission market, the speed and quality of an institute's response often decide whether an inquiry becomes an enrolment. At Tahseen Ahmad Cheema Institute (TACI), inquiries arrive through many doors: social media advertisements, WhatsApp messages,

telephone calls, the website and walk-in visits. They come from prospective students, job applicants, short-course learners and vendors alike.

Until recently, these inquiries were recorded in individual spreadsheets. Records were scattered, ownership of follow-up was unclear, and preparing a summary for management meant consolidating files by hand. Each department depended on whichever copy reached it, by email, on WhatsApp or on a USB drive (Figure 1). The institute needed a single system that would capture every inquiry, assign it to the right person and preserve its history, without the cost and rigidity of a commercial customer relationship management (CRM) product.

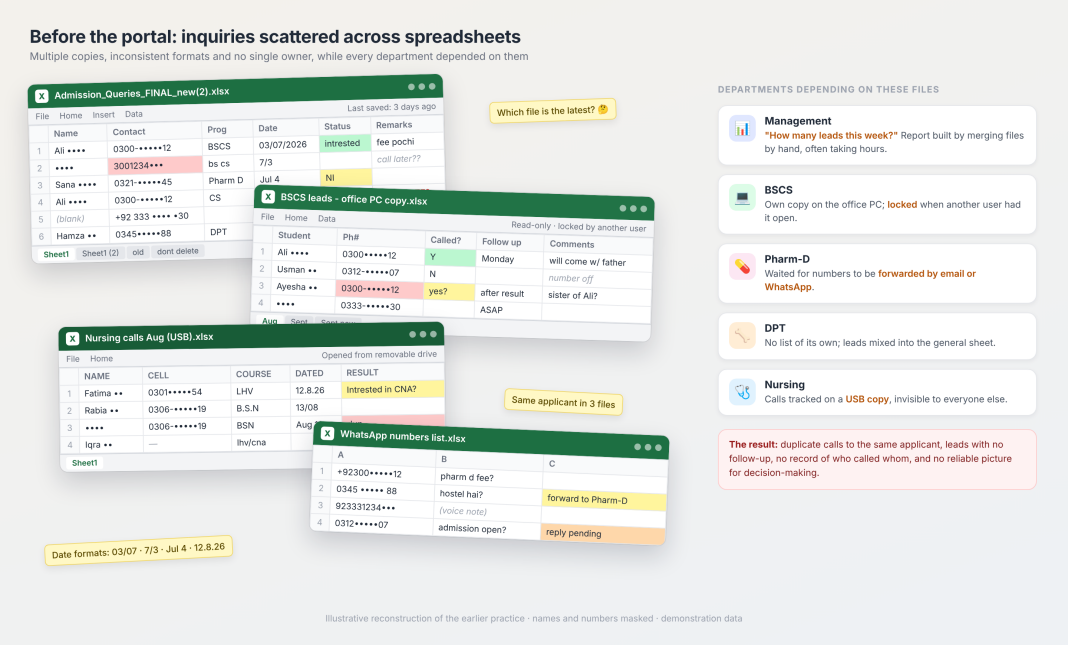

Figure 1. The earlier practice: inquiries spread across several spreadsheet copies with inconsistent names, dates and status entries, duplicate applicants and missing outcomes, while management and every department depended on them. Illustrative reconstruction; names and numbers masked.

The Query Management Portal

The Query Management Portal answers that need. Designed and developed in-house, it gives every inquiry an owner, a status and a complete history from first contact to final outcome. Staff use the same system in a desktop browser or through the Android and iPhone apps, so an inquiry can be logged at the admission desk, during a call or away from the office, and it appears instantly for colleagues and management (Figure 2).

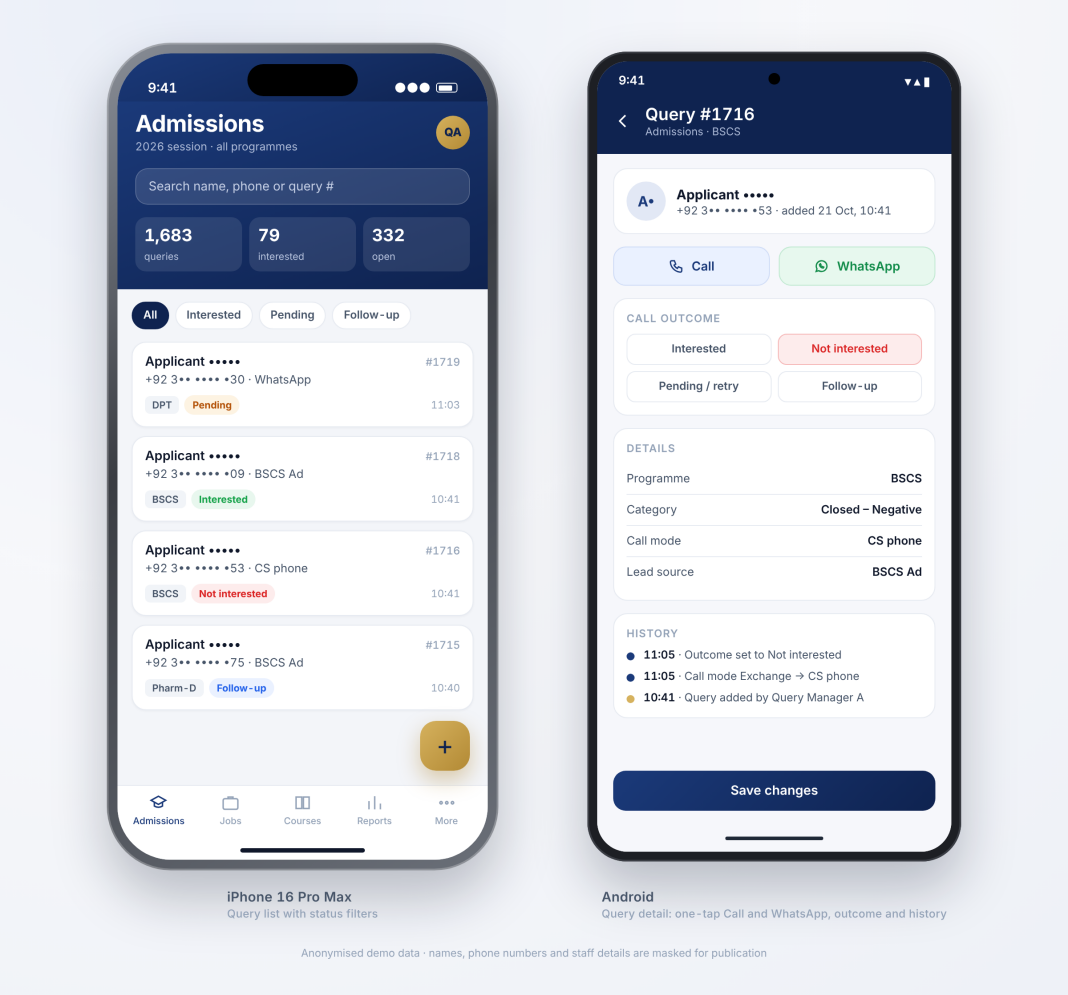

Figure 2. The portal on iPhone 16 Pro Max (query list with status filters) and Android (query detail with one-tap Call and WhatsApp). Demonstration data.

At a glance

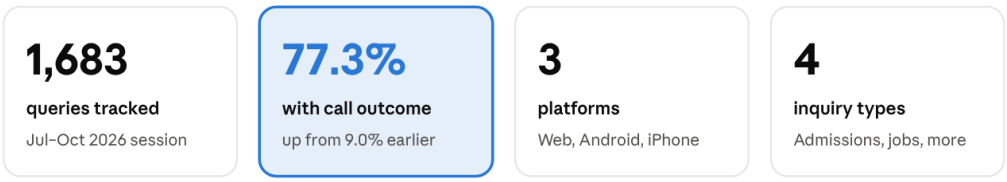

Figure 3. The portal at a glance: admission inquiries tracked in the 2026 session, share with a recorded call outcome, supported platforms and inquiry types.

Key Capabilities

- **Unified inquiry record.** Admissions, job applications, short courses and other inquiries are captured in one structured database, each tagged with its programme, source and campaign.
- **Structured follow-up.** Every inquiry moves through defined call outcomes (interested, not interested, pending and follow-up) and, for admissions, through challan issue and payment.
- **One-tap communication.** Staff can call an applicant or open a WhatsApp chat directly from the inquiry screen and record the outcome on the spot.
- **Role-based access.** Roles range from Super Admin to programme-specific Query Manager and Viewer, so each department works only with its own applicants.
- **Complete audit trail.** Every sign-in and every change is logged with the user, the time and the old and new value of each field.
- **Executive reporting.** Programme-wise and daily reports are generated as PDF on demand, replacing manual consolidation.

An Intelligent Front Door: The WhatsApp AI Agent

Most prospective students now meet TACI first through advertisements on Facebook, Instagram and TikTok that open a WhatsApp conversation. To ensure that no such conversation goes unanswered, a WhatsApp AI agent was introduced for the 2026 admission session. It responds instantly, at any hour, to routine admission questions, and applicants who show interest are carried forward into the Query Management Portal for personal follow-up by the admission team (Figure 4).

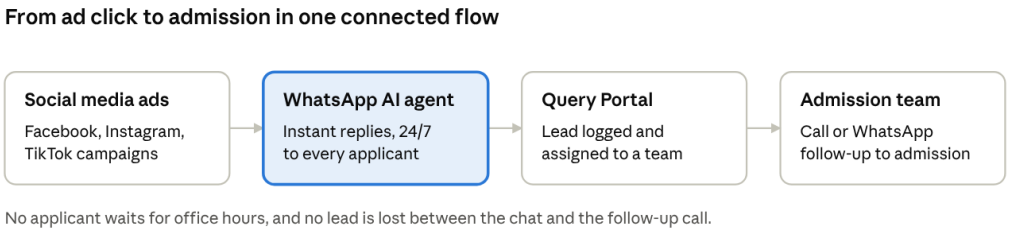

Figure 4. From advertisement to admission: the WhatsApp AI agent and the portal work as one connected flow.

The agent is most valuable when the admission office is closed. Figure 5 shows three typical conversations: late at night, in the early hours and on a holiday. In each case the applicant receives an immediate, accurate reply drawn from the agent's approved knowledge base, and the

inquiry is recorded so that the right team can follow up on the next working day.

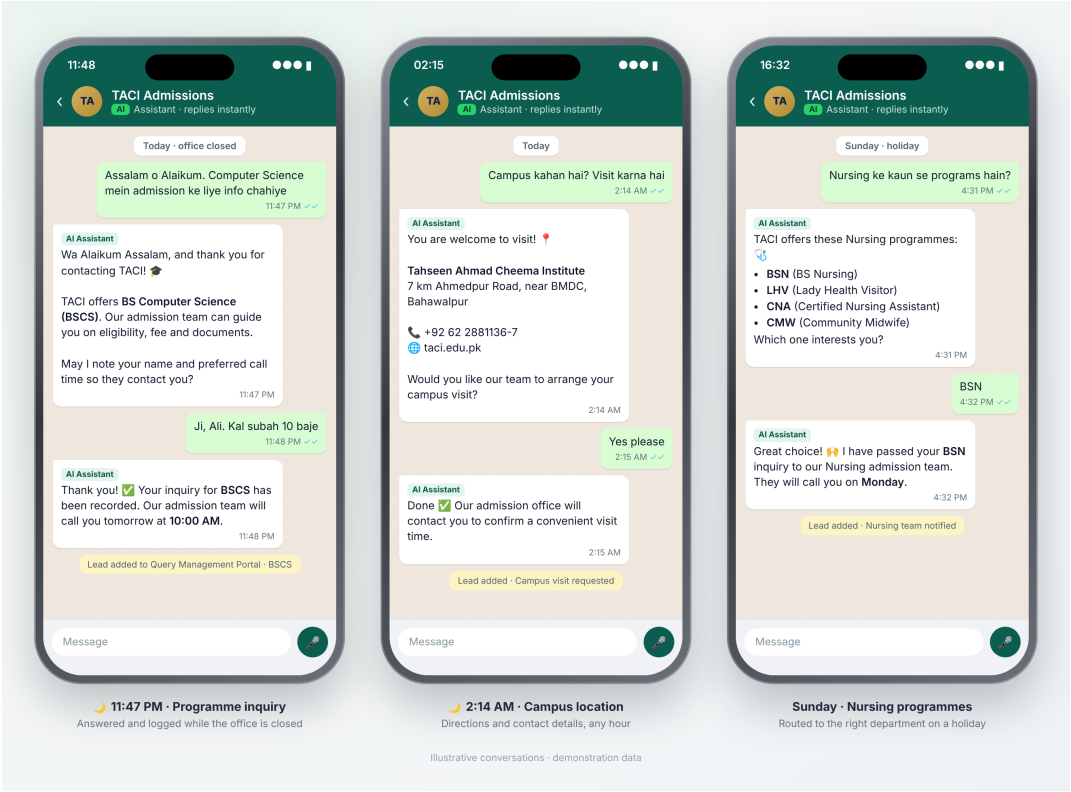

Figure 5. The WhatsApp AI agent handling inquiries outside office hours: a programme inquiry at 11:47 PM, a campus-location request at 2:14 AM and a Nursing inquiry on a Sunday, each answered from the approved knowledge base and passed to the admission team. Illustrative conversations with demonstration data.

This pairing of automation and human follow-up is deliberate. The AI agent offers a speed and availability that no office can match, while the portal ensures that every promising conversation reaches a staff member who can guide the applicant to admission. Because each lead keeps its campaign tag, management can also see which advertisements bring genuine applicants and plan future campaigns accordingly.

Value for Every Stakeholder

The portal was designed around the people it serves, and its value is felt at every level of the institute, from senior management to the applicant who sends the first message (Figure 6).

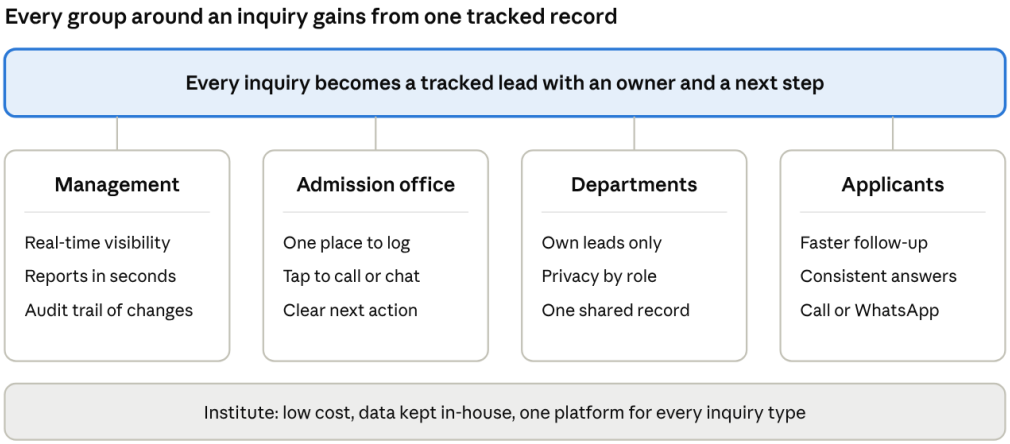

Figure 6. Benefits of the Query Management Portal for each stakeholder group.

For management, the most visible change is real-time insight: the number of leads in each programme, and the stage each has reached, are available at any moment without a request to staff. For the admission office, the portal replaces guesswork with a clear list of whom to contact next. Departments gain ownership of their own applicants, and applicants receive faster, more consistent responses through the channel they prefer.

Governance and Architecture

Transparency is built into the system. The Activity page shows who is currently online, each user's role and the changes made that day, followed by a searchable log of every action (Figure 7). This audit trail makes responsibility clear and allows any change to a lead to be traced.

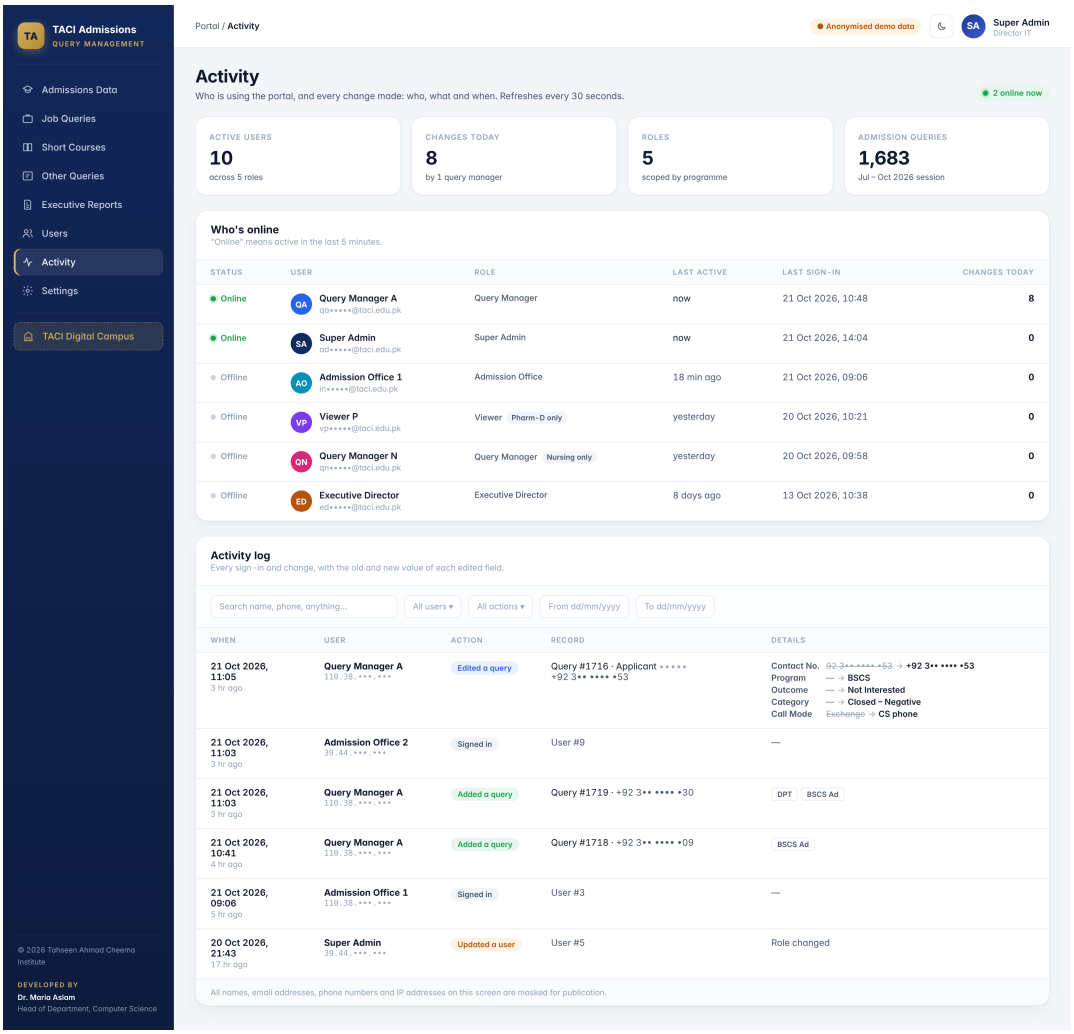

Figure 7. The Activity page: online users, programme-scoped roles and a complete change log. Names, contact details and IP addresses are anonymised.

Technically, the portal follows an API-centred design. A single backend applies the workflow rules and stores the data, while the web application and both mobile apps act as clients of the same interface (Figure 8). A status updated on a phone therefore appears instantly on the management dashboard.

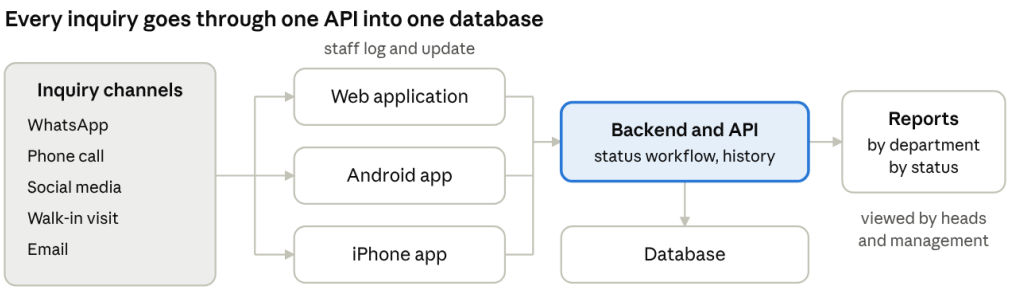

Figure 8. System architecture: every channel feeds one API, one database and one set of reports.

Early Impact

The 2026 admission session offered the first full test of the system. Between July and October, 1,683 admission inquiries were recorded in the portal. The decisive change came once follow-up itself moved into the portal in mid-September: the share of inquiries with a recorded call outcome rose from 9.0% to 77.3% (Figure 9).

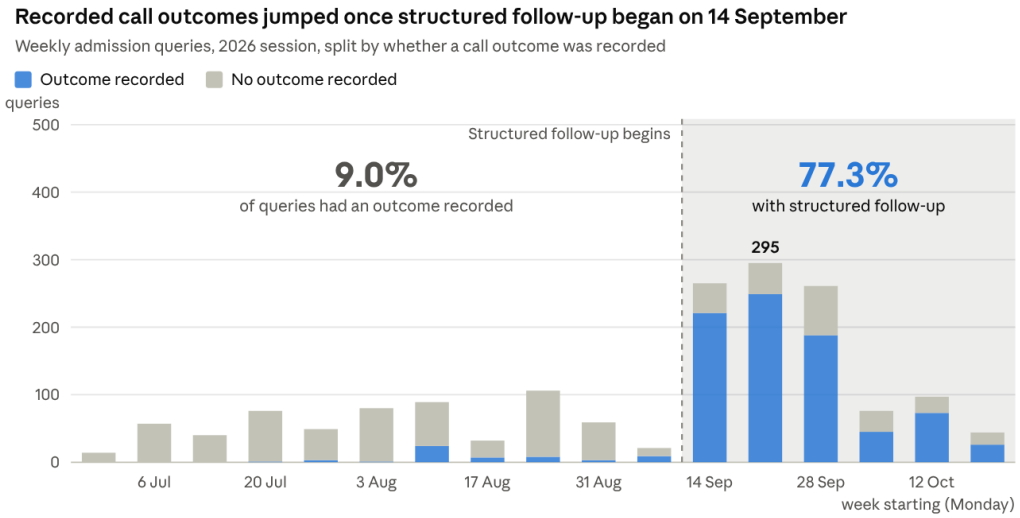

Figure 9. Weekly admission inquiries in the 2026 session, by whether a call outcome was recorded. Source: TACI admissions query log.

The wider shift in day-to-day practice is summarised in Table 1.

Table 1. Comparison of inquiry handling before and after the introduction of the Query Management Portal.

Aspect	Spreadsheet-based practice	Query Management Portal
Record keeping	Separate sheets kept by individual staff	One shared, secure database
Ownership of follow-up	Often unclear	Assigned to a department and staff member
Call outcomes	Recorded inconsistently	Recorded for every lead, with full history
Communication	Numbers copied into a phone by hand	One-tap Call and WhatsApp from the record

Reporting	Manual consolidation, often hours	Programme-wise PDF reports in seconds
Access	Office desktop only	Web, Android and iPhone
Accountability	No record of changes	Complete audit trail of every action

The Road Ahead

The portal has been designed as a foundation for further innovation. Planned enhancements include an AI Admission Counselor that drafts accurate replies for staff approval, direct capture of website and WhatsApp inquiries into the portal, and integration with the TACI Education Management System, so that every enrolled applicant flows seamlessly into a student record. Together with TACI Digital Campus, these steps move the institute towards a fully connected digital environment.

Figure 10 summarises the overall transformation: from scattered spreadsheets, through the connected system now in place, to a fully digital admission journey.

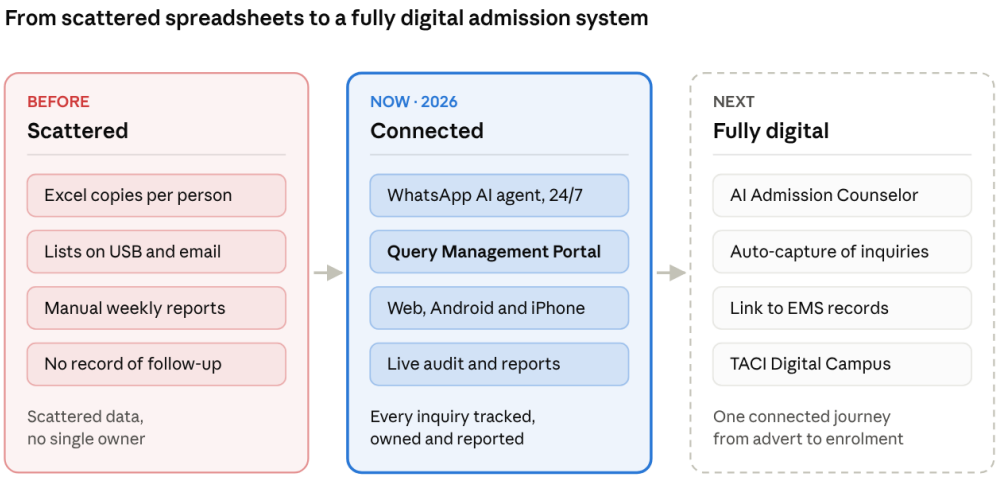

Figure 10. The digital transformation of inquiry handling at TACI: from scattered spreadsheets (before), to a connected portal and AI agent (2026), to a fully digital journey from advertisement to enrolment (next).

Conclusion

The TACI Query Management Portal shows that meaningful digital transformation does not depend on expensive external systems. Built in-house and tailored to local practice, it has turned scattered inquiries into a managed, transparent process that serves management, staff and applicants alike. As TACI continues to grow, systems of this kind will form the digital

backbone of a modern and responsive institution.

About the Author

Dr. Maria Aslam is Assistant Professor and Head of the Department of Computer Science, and Director IT, at Tahseen Ahmad Cheema Institute, Bahawalpur. She leads the institute's digital transformation, including TACI Digital Campus, TACI Bulletin, the EMS mobile apps and the Query Management Portal, all designed and built in-house.

She holds a PhD in Computer Science (2025) from The Islamia University of Bahawalpur, and an MS and BS in Computer Science, both with Gold Medals. She worked as a research assistant on the Erasmus+ SAFE-RH project with the University of the West of Scotland, and her work in healthcare AI and GPU computing appears in IEEE Access, Scientific Reports and Frontiers in Pharmacology.

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