



NATIONAL ECONOMICS UNIVERSITY

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An MBTI-Driven Conversational Recommender for University Admission Guidance

Empirical Findings from a Deployed Personality-Aware AI Portal

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Introduction & Research Motivation

15%

of first-year students nationwide want to
switch majors right after enrolling

— national survey data [15]

~30%

first-year non-return rate documented
internationally

— dropout-risk literature [9]

- Candidates choose programs based on family pressure or prestige rather than genuine personality fit.
- Admission portals offer only static brochures, score thresholds, and rigid quota tables.

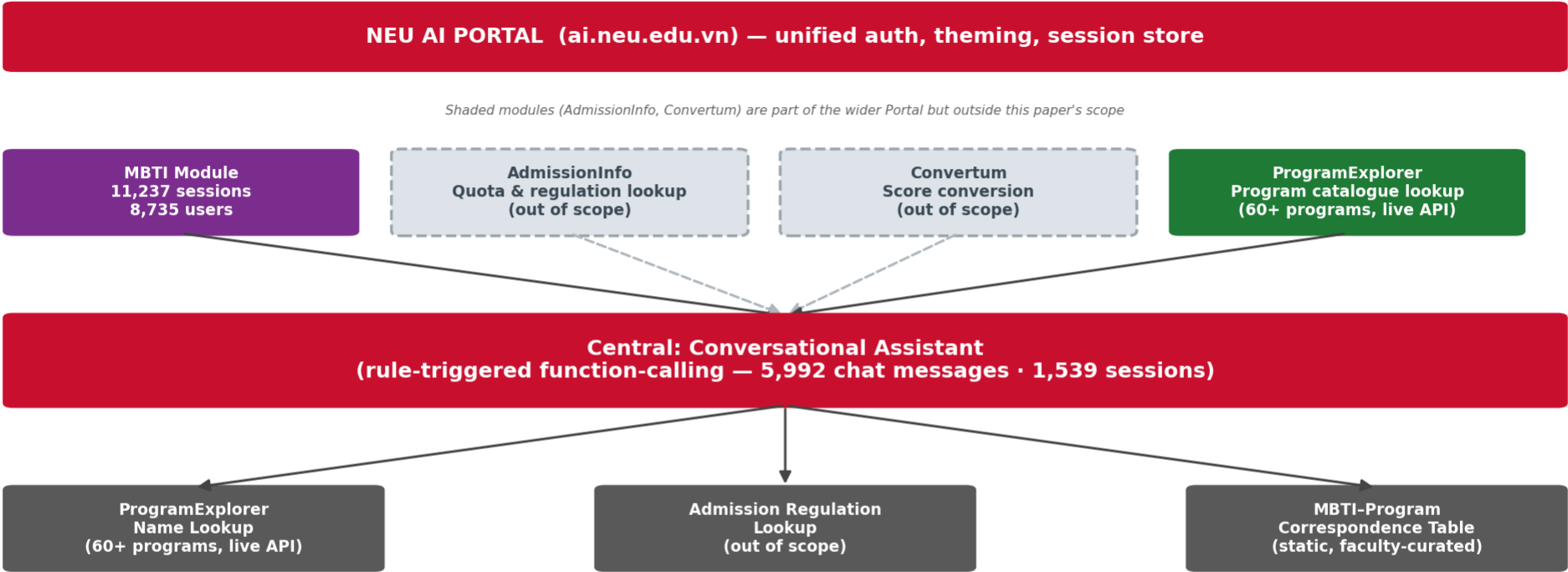
Proposed Approach: Personality as a Reflective Scaffold

- Why MBTI? Culturally accessible, massive recognition among Vietnamese youth on social media
- Two-Fold Objective:
 - NOT as a deterministic, predictive placement tool (which is psychometrically problematic)
 - YES as a soft, conversational entry point for structured self-reflection
- Core Principle: Combine modern retrieval-augmented language models with strict expert-curated guardrails

ENTJ THE COMMANDER Opinionated Confident Forceful	INTJ THE MASTERMIND Innovative Theoretical Self-assured	ENTP THE VISIONARY Intelligent Inquisitive Passionate	INTP THE THINKER Logical Inventive Thoughtful
ENFJ THE GIVER Goal-oriented Charismatic Open-minded	INFJ THE COUNSELOR Idealist Compassionate Reserved	ENFP THE CHAMPION Gregarious Enthusiastic Impulsive	INFP THE HEALER Quiet Idealistic Considerate
ESTJ THE SUPERVISOR Orderly Dependable Commanding	ISTJ THE INSPECTOR Traditionalist Reliable Detail-oriented	ESFJ THE PROVIDER Helpful Judgemental Sociable	ISFJ THE NURTURER Humble Sensitive Tough
ESTP THE DOER Energetic Practical Flamboyant	ISTP THE CRAFTSMAN Insightful Realistic Autonomous	ESFP THE PERFORMER Indulgent Spontaneous Approachable	ISFP THE COMPOSER Modest Open-minded Creative

System Architecture & The Decoupled Paradigm

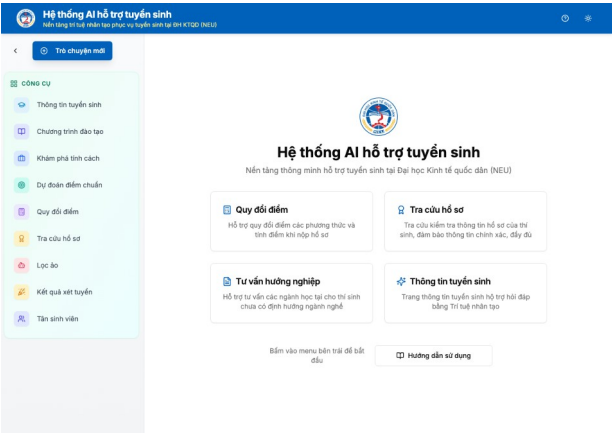
LLM-based
Consultation
Document
Formatting



Conversational
assistant with
deterministic tool-
calling

Figure 1. System architecture of the personality-aware NEU AI Portal (live data through 30 Jul 2026)

The system in production



NEU AI Portal — unified entry point for all modules

Chương trình đào tạo

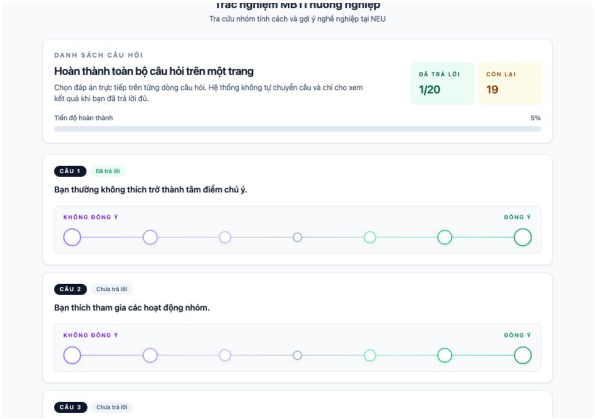
Trình cứu chương trình đào tạo K58 - 2028

Tìm theo mã ngành, mã tuyển sinh, khoa, ngành/chương trình...

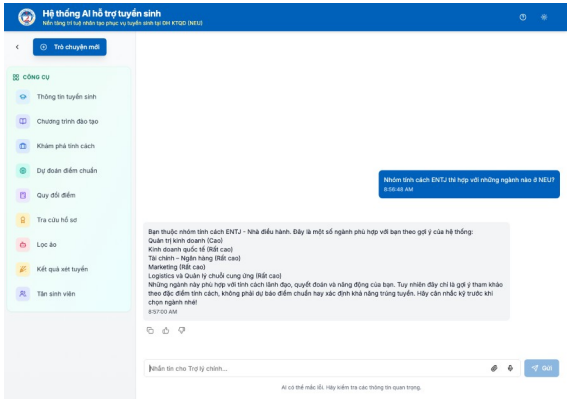
Khoa - Năm: K58 - 2028

STT	Mã tuyển sinh	Chương trình đào tạo	Tên ngành	Mã ngành	Khoa/Viện	Chỉ tiêu	Dự đoán
1	720201	Ngôn ngữ Anh English Language	Ngôn ngữ Anh	720201	Khoa Ngoại ngữ Kinh tế	50	Rất cao
2	731010P1		Kinh tế	731010P1	Khoa Kinh tế học	50	Cao
3	731010P2	Kinh tế và quản lý đô thị Urban economics and management	Kinh tế	731010P2	Khoa Môi trường, Biến đổi khí hậu và Đô thị	50	Trung bình
4	731010P3	Kinh tế và quản lý nguồn nhân lực Human Resource Economics and Management	Kinh tế	731010P3	Khoa Kinh tế và Quản lý nguồn nhân lực	50	Cao
5	7310104	Kinh tế đầu tư Investment Economics	Kinh tế đầu tư	7310104	Khoa Đầu tư	100	Rất cao
6	7310105	Kinh tế phát triển Development Economics	Kinh tế phát triển	7310105	Khoa Kế hoạch và Phát triển	60	Cao
7	7310106	Kinh tế quốc tế International Economics	Kinh tế quốc tế	7310106	Viện Thương mại và Kinh tế quốc tế	50	Rất cao
8	7310107	Thống kê kinh tế Economic Statistics	Thống kê kinh tế	7310107	Khoa Thống kê	50	Cao
9	7310108	Toán kinh tế Mathematical Economics	Toán kinh tế	7310108	Khoa Toán kinh tế	50	Rất cao
10	7302108	Quản hệ công chứng Public Notaries	Quản hệ công chứng	7302108	Khoa Marketing	50	Rất cao
11	7302101	Quản trị kinh doanh	Quản trị kinh doanh	7302101	Khoa Quản trị kinh doanh	100	Cao

ProgramExplorer — live catalogue browser, 60+ programs



MBTI module — 20-item, 7-point Likert instrument, live progress



Central assistant — ENTJ query, static lookup answer, guardrail disclaimer

Empirical findings from the live 2026 admission cycle

All telemetry below is drawn from the deployed system over a 97-day window (25 Apr – 30 Jul 2026) covering the peak admission information-seeking phase.

11,237

MBTI assessments completed

8,735

unique candidate profiles

4,234

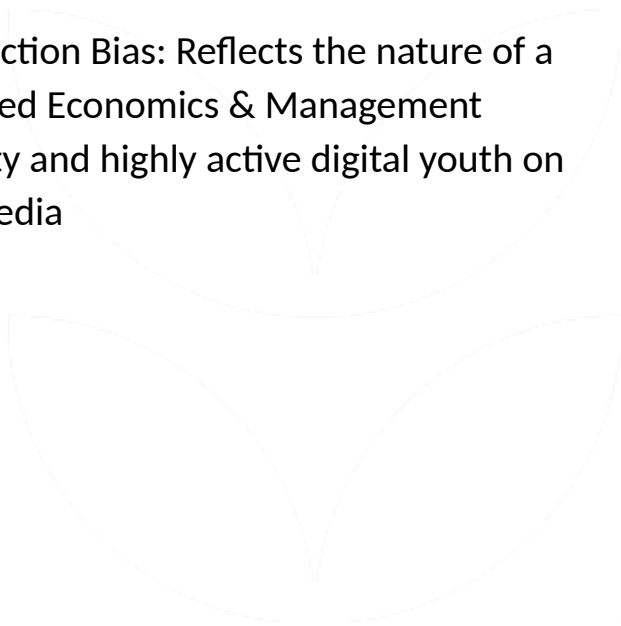
personality-conditioned consultations

1,539

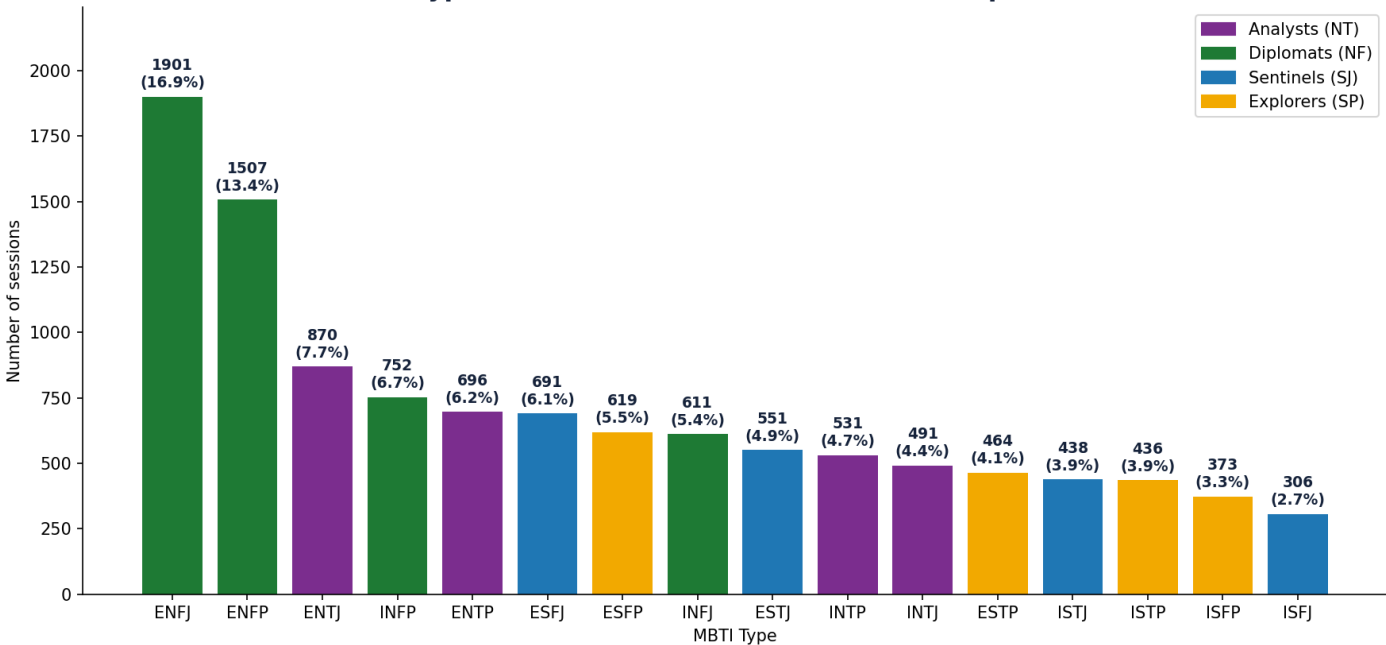
ProgramExplorer chat sessions

Candidate Personality Profiles

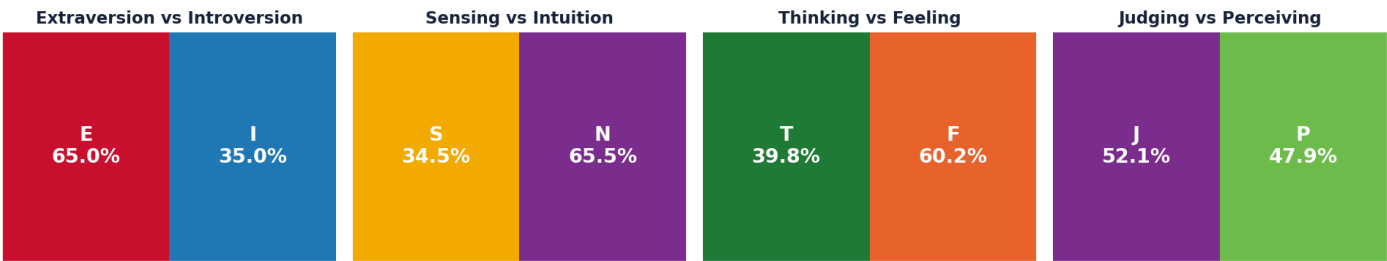
- Observed 16-Type Distribution: Highly non-uniform distribution ($p < .001$)
- The Skew Explained: Strong leaning toward Extraversion (65.0%), Intuition (65.5%), and Feeling (60.2%)
- Self-Selection Bias: Reflects the nature of a specialized Economics & Management university and highly active digital youth on social media



Distribution of 16 MBTI types on N = 11,237 sessions (8,735 unique users)

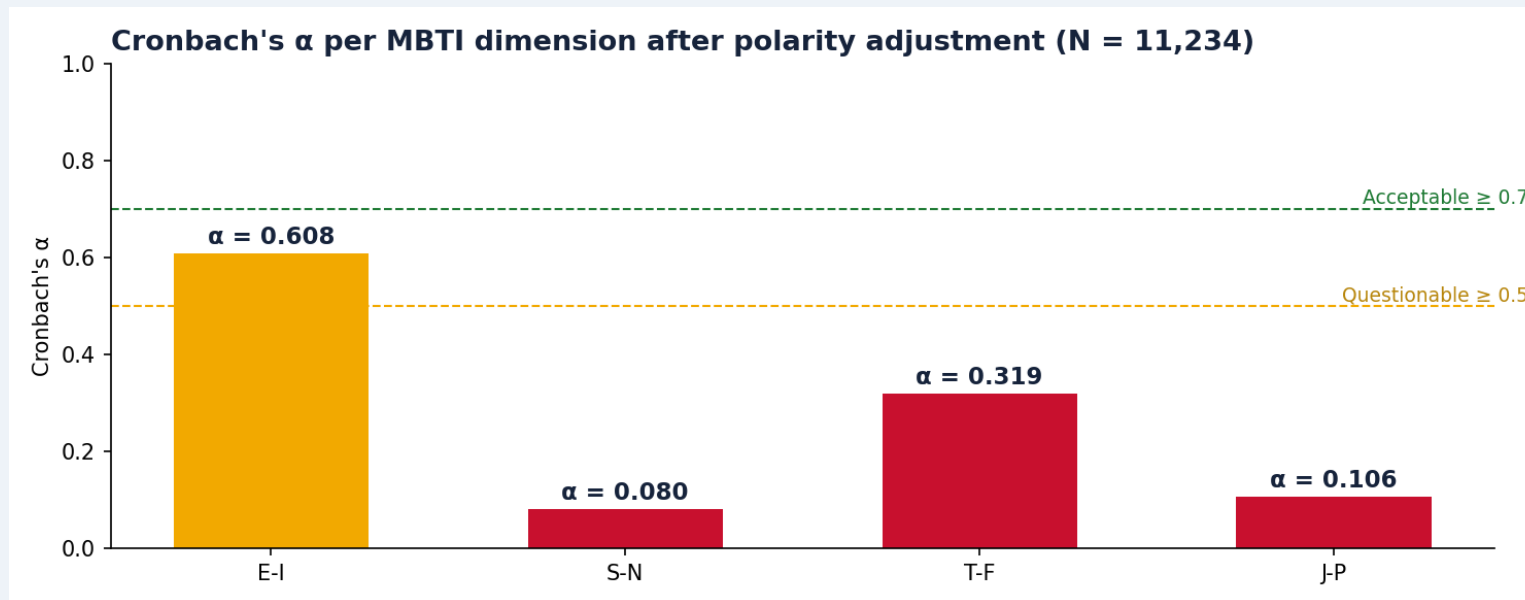


Marginal distribution along four MBTI dimensions (N = 11,237 sessions)



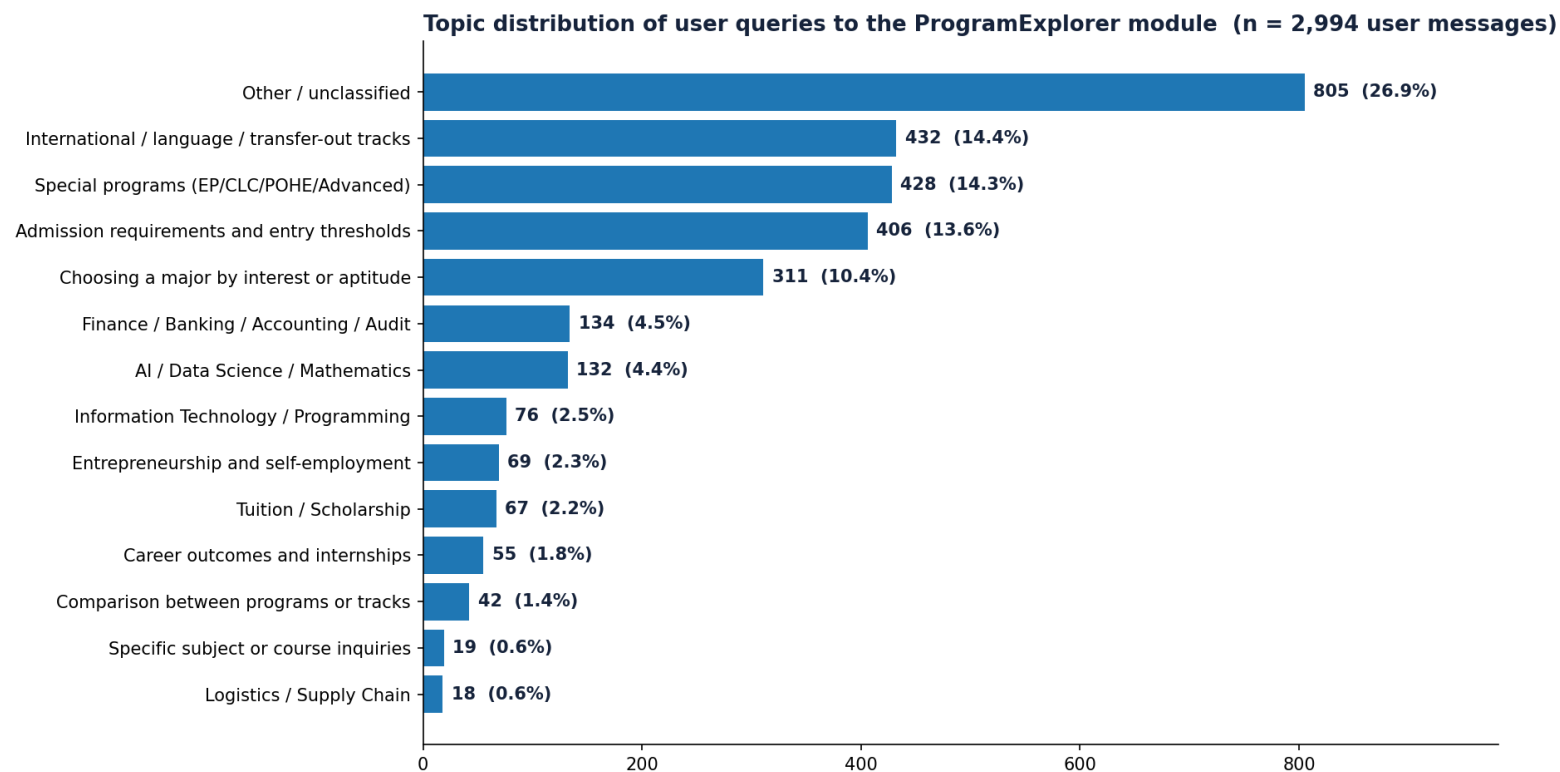
An Honest Psychometric Audit (Cronbach's Alpha)

Methodology: Cronbach's alpha computed over 11,234 complete answer vectors



- Low internal consistency (especially S-N: 0.08) is attributed to unmoderated online exploration and casual random clicks by curious users.
- Zero downstream risk: raw dimension scores are NOT used for automated filtering or major ranking; MBTI serves strictly as a soft reflective scaffold.

Candidates reason at the program-and-track level



1,539

chat sessions

3.94

mean messages / session

57.2%

of named queries in top-5 topics

International/language and special-program tracks are essentially tied for the top spot; admission requirements need deterministic grounding, not LLM speculation.

Connecting Personality to Declared Preferences

- 420 candidates completed both MBTI and a real declared program preference (TT/CLC track), matched by national ID.

Declared 1st-choice domain	n	Extraversion	Sensing	Thinking	Judging
Finance & Accounting	170	65%	41%	40%	56%
Business & Trade	127	72%	36%	34%	50%
Logistics	89	70%	34%	31%	46%
Marketing & Digital	22	77%	9%	36%	45%
People & Communication	12	100%	25%	17%	25%
Overall matched sample	420	69.8%	35.7%	35.5%	50.7%

- Directionally sensible: Marketing skews Intuitive (91% N); HR/PR skews Extraverted-Feeling (100% E, 83% F) — both textbook-consistent.
- Not statistically confirmatory: chi-square tests across the three largest domains are non-significant ($p > 0.2$) — expected given the modest reliability in Sect. 6.
- Chi-square tests are non-significant ($p > 0.2$) due to the modest sample size (420 candidates), presented transparently.

Ethical Guardrails & Decree

1

Deterministic self-narrative

The counselor is contractually restricted from type-deterministic statements; the consent flow explains the limits of personality typology.

2

Demographic stratification

Recommendation distributions are audited each cycle, stratified by gender and home province, against documented bias in automated career advice [12].

3

Sensitive candidate data

The platform follows Vietnam's Decree 13/2023/ND-CP on Personal Data Protection; MBTI responses are stored under a candidate-controlled, revocable key.

Limitations & Future Work

- Telemetry covers a self-selected, digitally engaged segment — not nationally representative.
- Cronbach's α reflects a single field administration; a test-retest pilot is scheduled next.
- Topic classification is rule-based today; an embedding-based pipeline is planned.
- The face-validity check (Sect. 8) covers only the TT/CLC track — 420 candidates, not all 60+ majors.
- **Longitudinal Study In Progress: Matching consented candidate National IDs (CCCD) with actual institutional enrollment databases to analyze week-16 student retention and major-transfer rates (treatment vs. control group).**

CONCLUSION

Keep personality-conditioning simple and auditable — a static, human-curated lookup beats an opaque ranking model when trust matters most.

The 2026 cycle telemetry justifies the design while exposing instrument-level revisions the field deserves to see openly.

Selected references

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Thank you

Questions and discussion welcome.

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