

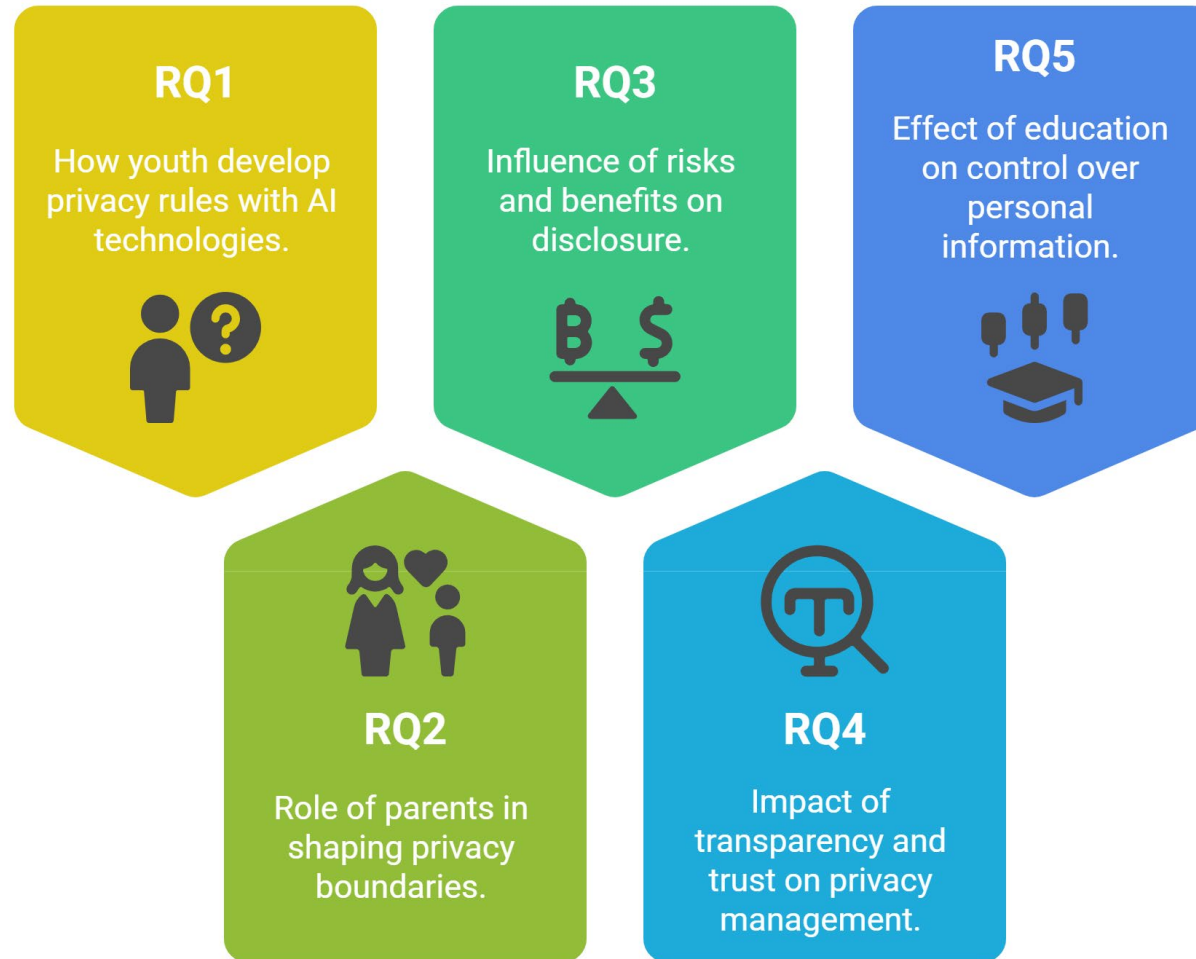
# Advancing Youth Privacy in AI: Privacy-Ethics Alignment in AI (PEA-AI)

Presenter: Dr. Ajay Shrestha

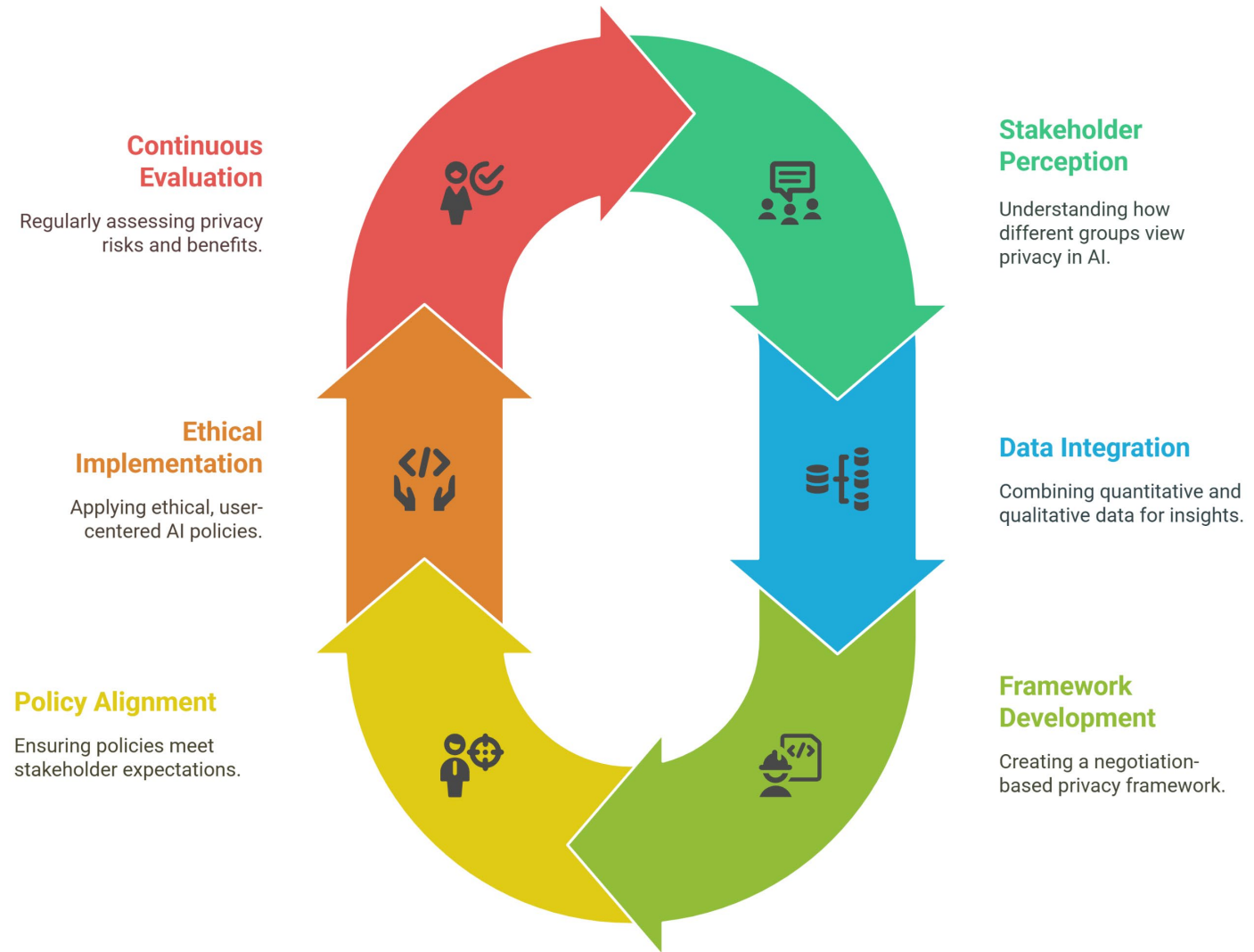
# Introduction

- **Topic:** Youth privacy in AI systems (social media, educational tech, gaming, recommendation algorithms)
- **Objective:** Examine privacy concerns and propose actionable insights for ethical AI design
- **Research: Funded** by the Office of the Privacy Commissioner of Canada (OPC)

# Research Questions

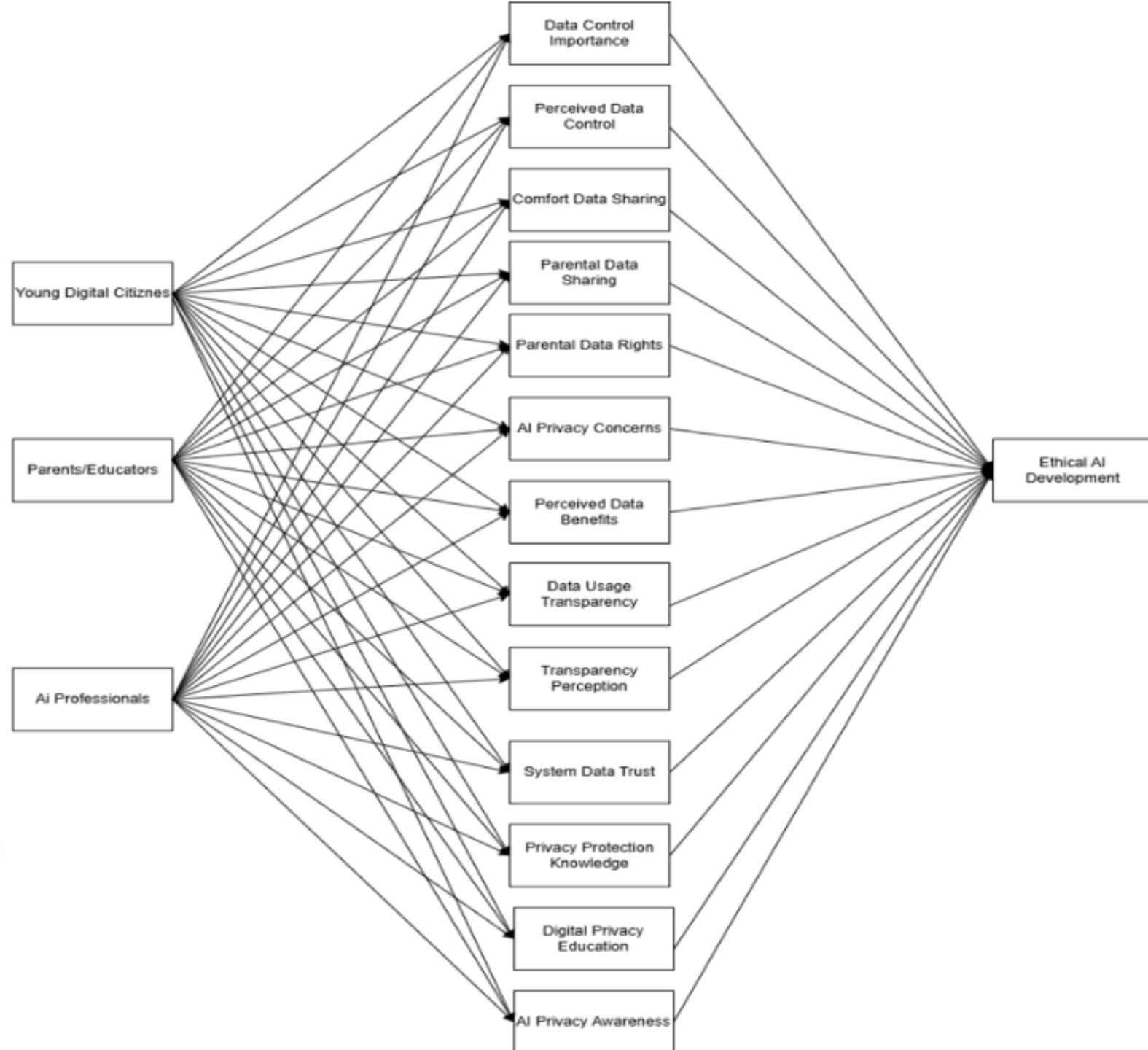


# Building PEA-AI Model



Privacy-Ethics Alignment in AI (PEA-AI) Model Privacy Governance

# PEA-AI Model



*Stakeholder Perspectives Leading  
to Ethical AI Development*

# Research Design

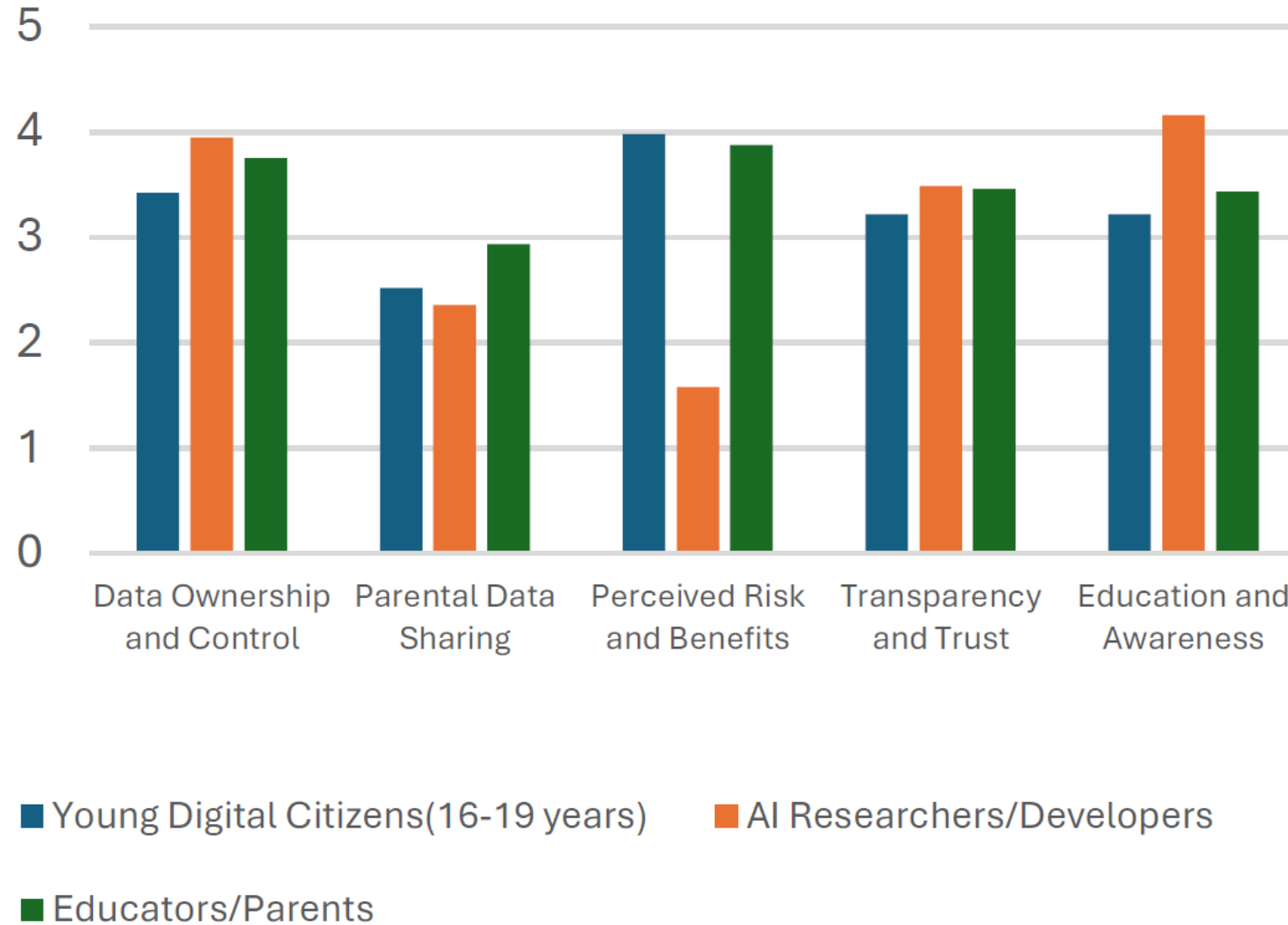
## CONSTRUCTS AND ITEMS

Construct	Items
Data Ownership and Control (DOC)	doc1: Importance of users having control over their personal data. doc2: Frequency of considering user data control in work. doc3: Feasibility of implementing data control mechanisms.
Parental Data Sharing (PDS)	pds1: Handling data shared by parents on behalf of children. pds2: Importance of obtaining consent from young users.
Perceived Risks and Benefits (PRB)	prb1: Concern about ethical implications. prb4: Significance of benefits in justifying data use. Open-Ended Question: Primary risks associated with personal data use. Open-Ended Question: Benefits AI systems provide by using personal data.
Transparency and Trust (TT)	tt1: Importance of transparency about data usage. tt2: Perception of transparency in current AI systems. tt3: Belief that increasing transparency improves user trust.
Education and Awareness (EA)	ea1: Knowledge about privacy issues related to AI systems. ea2: Belief that users receive adequate training on privacy. ea3: Importance of being educated on privacy and ethical issues.

# Methodology

- Ethics-approved survey-based study
- **Participants:** 461 surveyed, 127 parents/educators, 146 AI professionals, 151 youths included after cleaning, 12 interviews and 2 focus groups
- **Tools:** Descriptive statistics, PLS-SEM for quantitative analysis, thematic coding for qualitative data

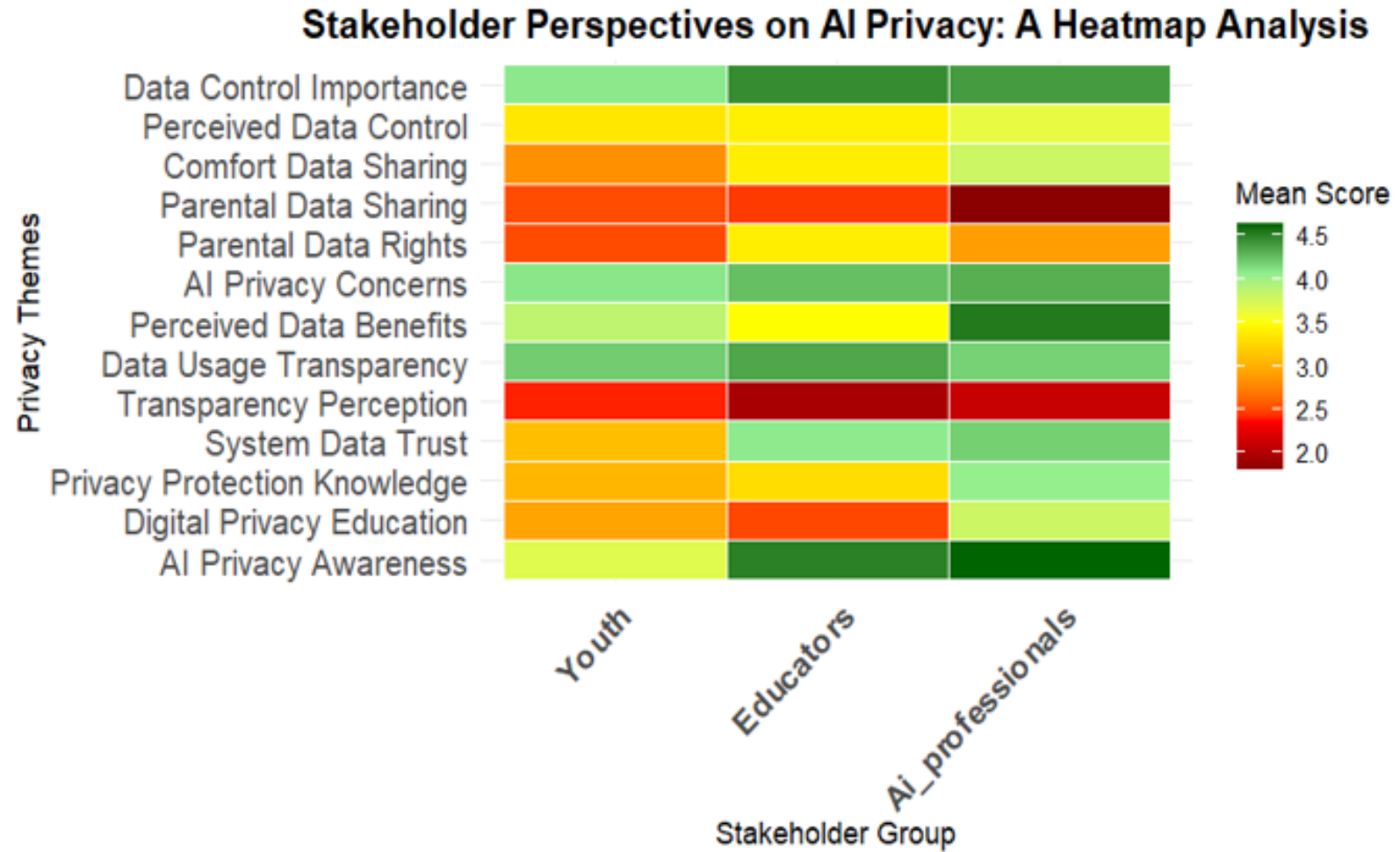
# Results



*Fig. Descriptive Statistics*



# Results



*Fig. Heatmap Analysis*

# Results

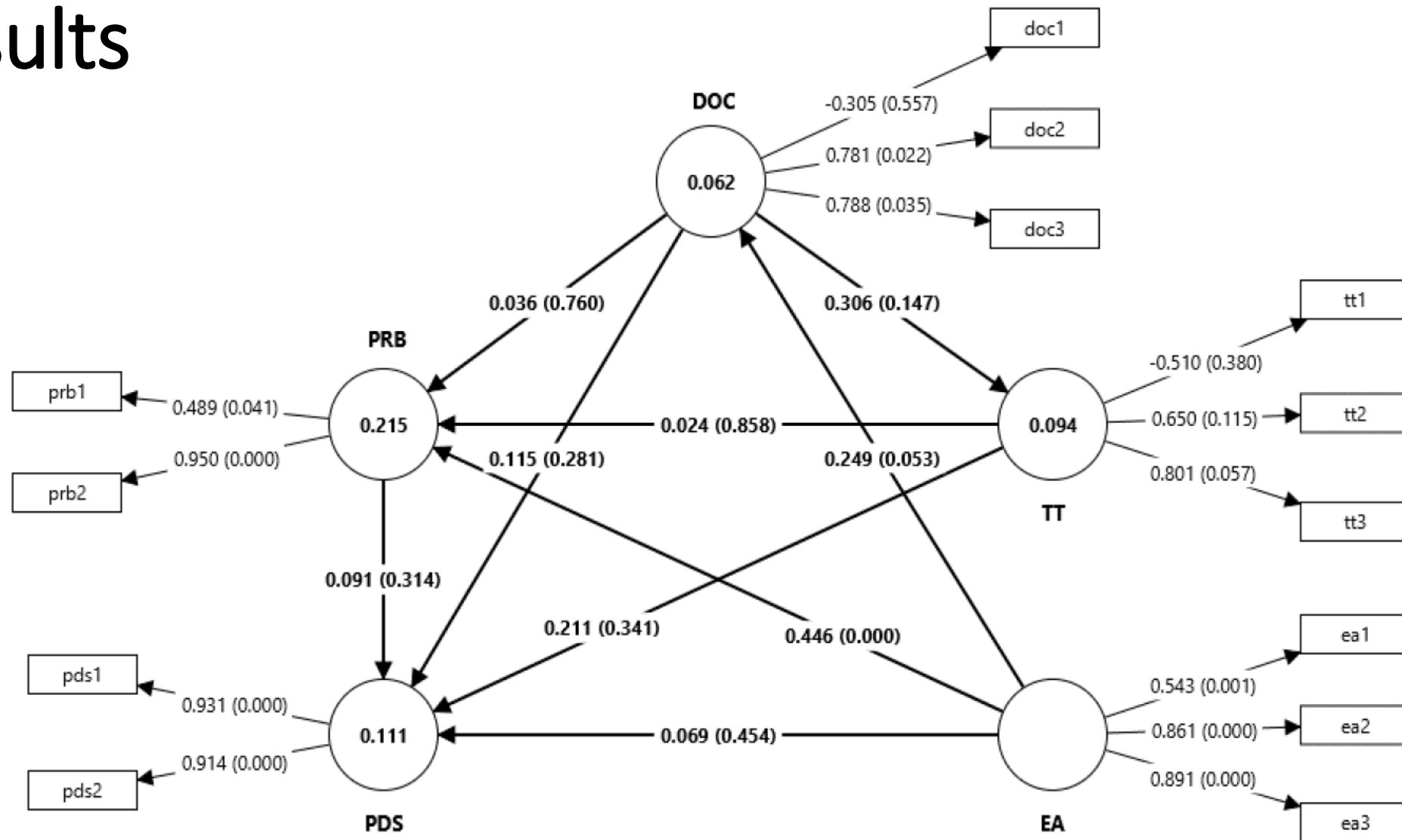


Fig. Structural model for **Young Digital Citizens**

# Results

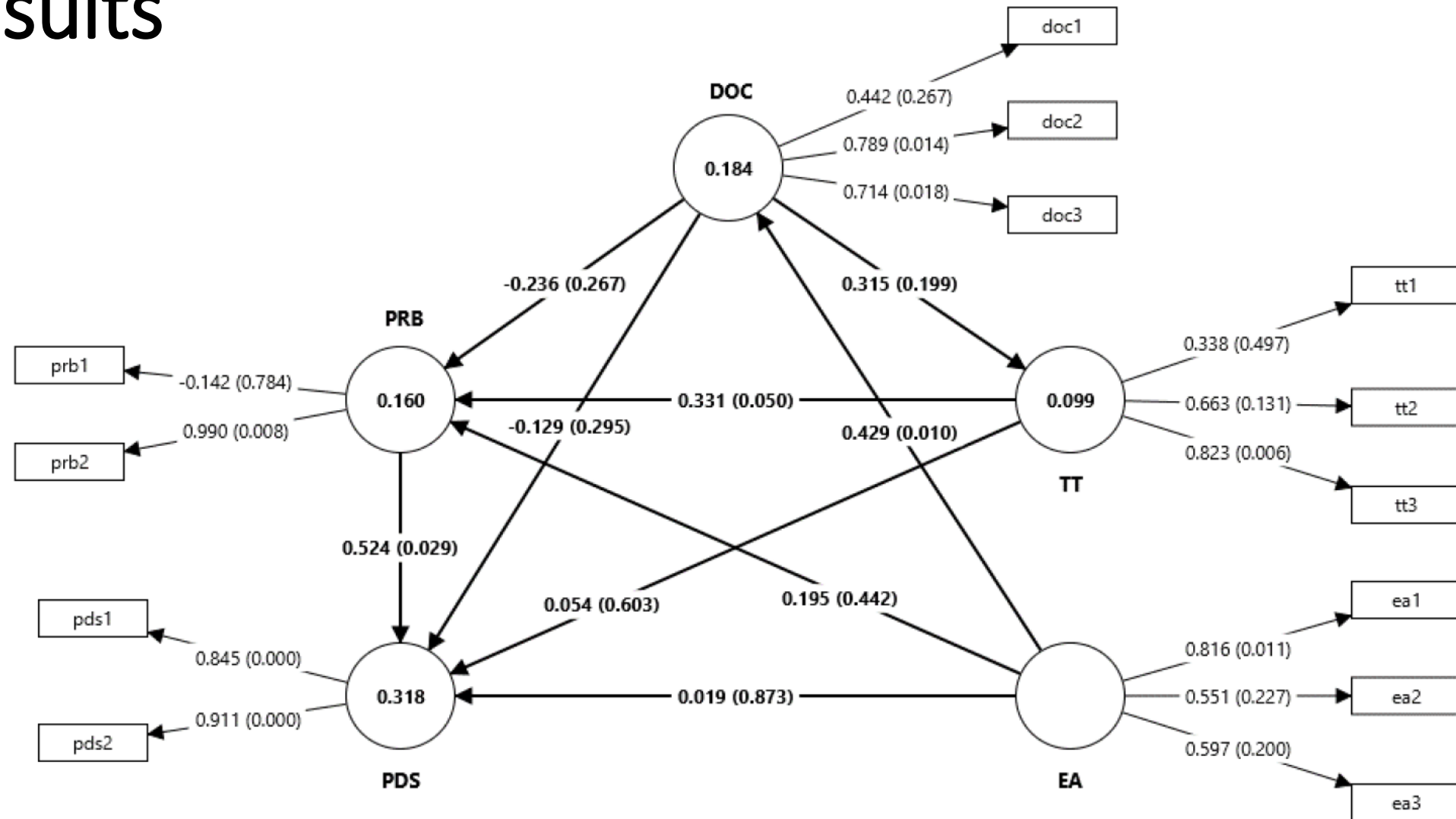


Fig. Structural model for **Parents & Educators**

# Results

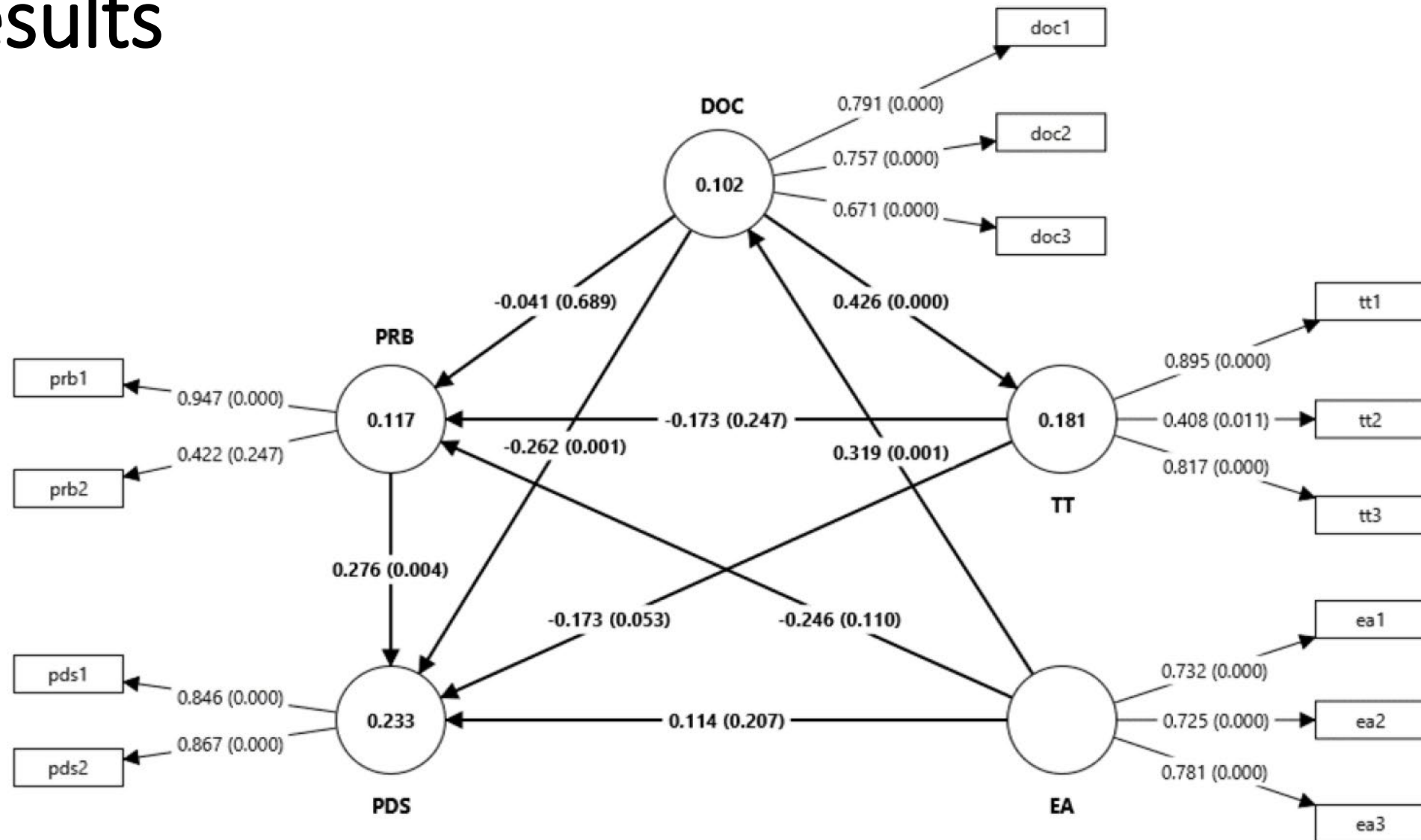
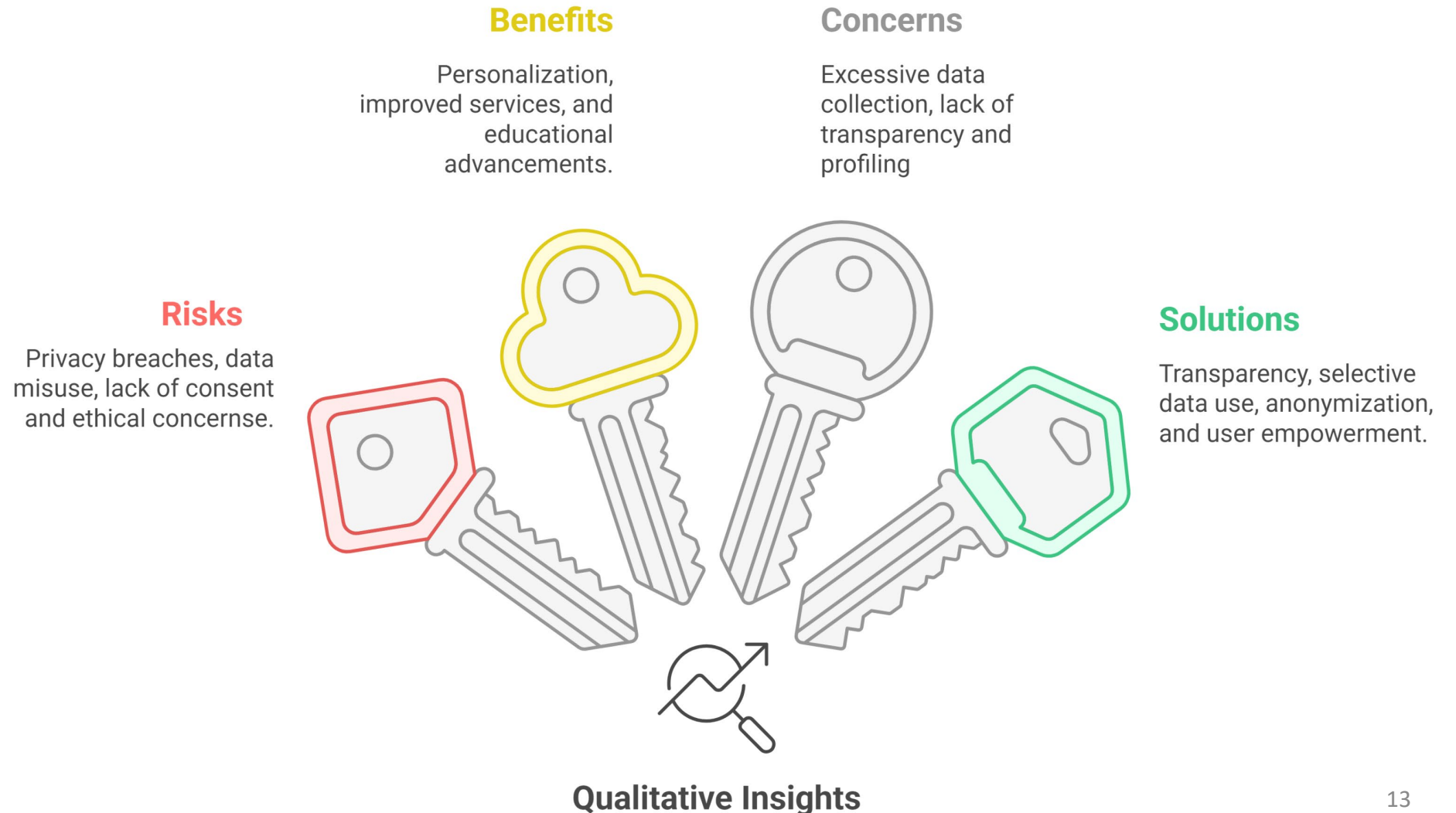


Fig. Structural model for **AI Professionals**

# Qualitative Insights

## Navigating Data Ethics



# Conclusion

- **For AI Developers & Policymakers:**
  - Strengthen privacy-by-design principles by enhancing data control mechanisms.
  - Improve AI transparency efforts to foster trust and informed decision-making.
- **For Educators & Parents:**
  - Increase AI literacy to bridge knowledge gaps and build risk awareness.
  - Implement structured parental consent mechanisms that align with youth data-sharing preferences.
- **For Youth and End-Users:**
  - Advocate for AI systems with user-friendly privacy controls.
  - Enhance awareness campaigns focusing on AI risks, benefits, and ethical trade-offs



# Privacy Aware AI - Research Team

- Prof. Ajay Shrestha, Principal Investigator
- Ankur Barthwal
- Molly Campbell
- Austin Shouli
- Mohamad Sheikho
- Sooriya Narendran
- Yulia Bobkova

# Thank you

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<https://csci-viu.github.io/privacy-aware-ai-for-youth>