Virtual Reality Learning: The Cognitive Factors Influencing Behaviour Modification

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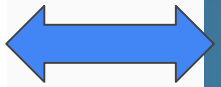
Introduction

- Interaction
- Immersion

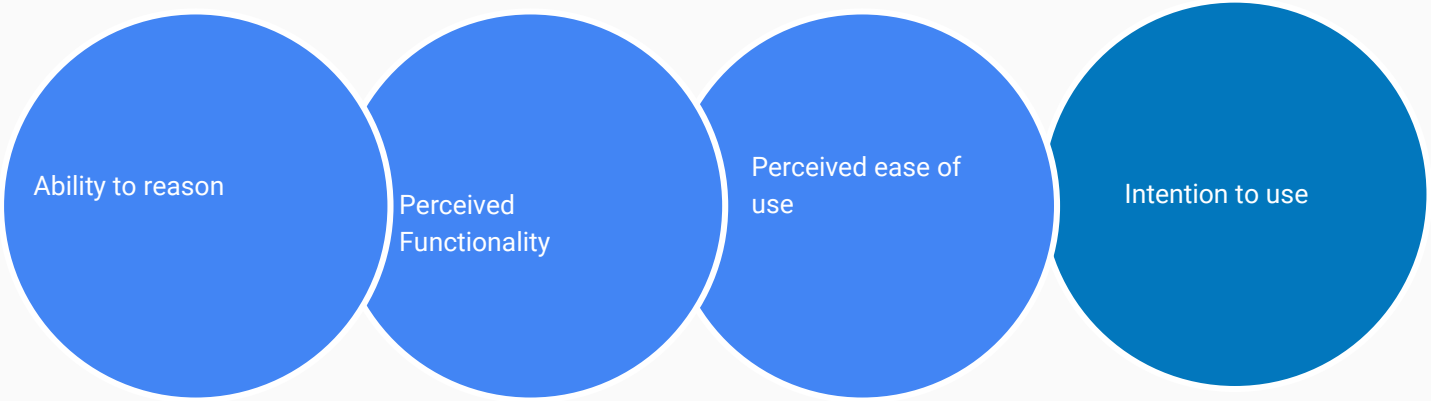


Problem Statement

- Novelty and Complexity of Virtual Reality (VR)
- Technologies studied
  - Mobile Wallets
  - Tax e-filing
  - Internet
  - Robots
  - E-learning
  - E- government
  - Information management systems
- Immersive experience (Shen et al, 2017)
- Wellbeing

What Predicts Technology Use?

- Intentionality Framework

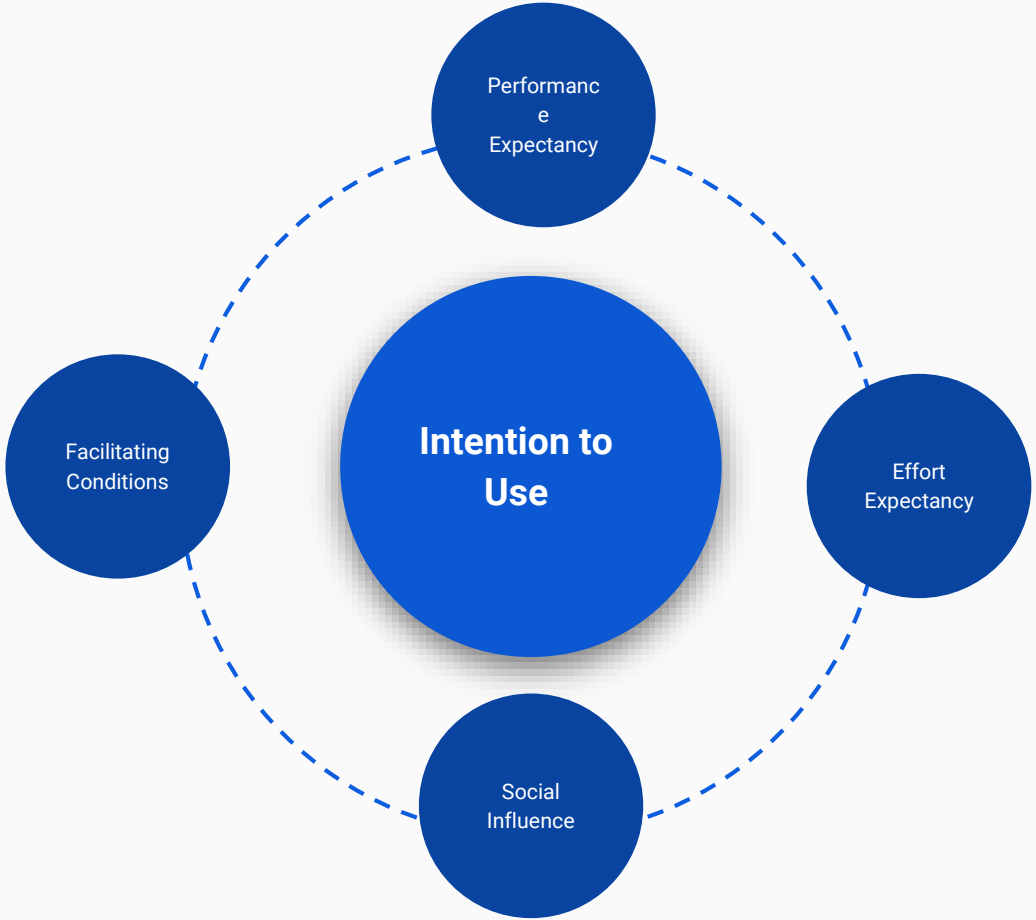


Unified Theory of Acceptance and Use of Technology - UTAUT

- A comprehensive synthesis of all technology acceptance research

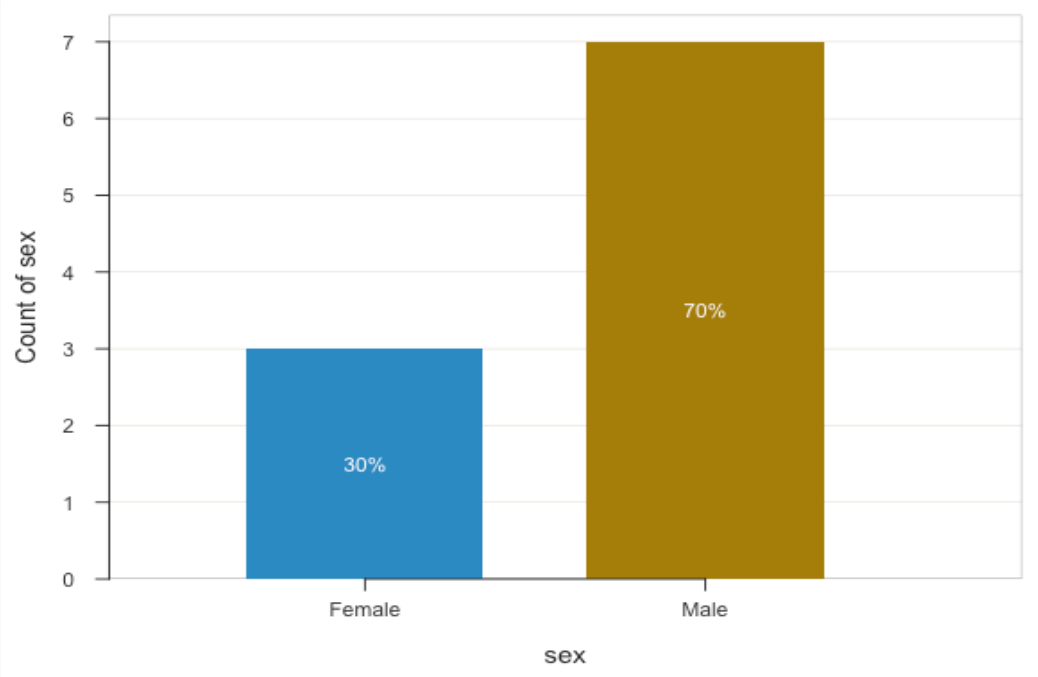
Venkatesh et al (2003) identified 4 key constructs

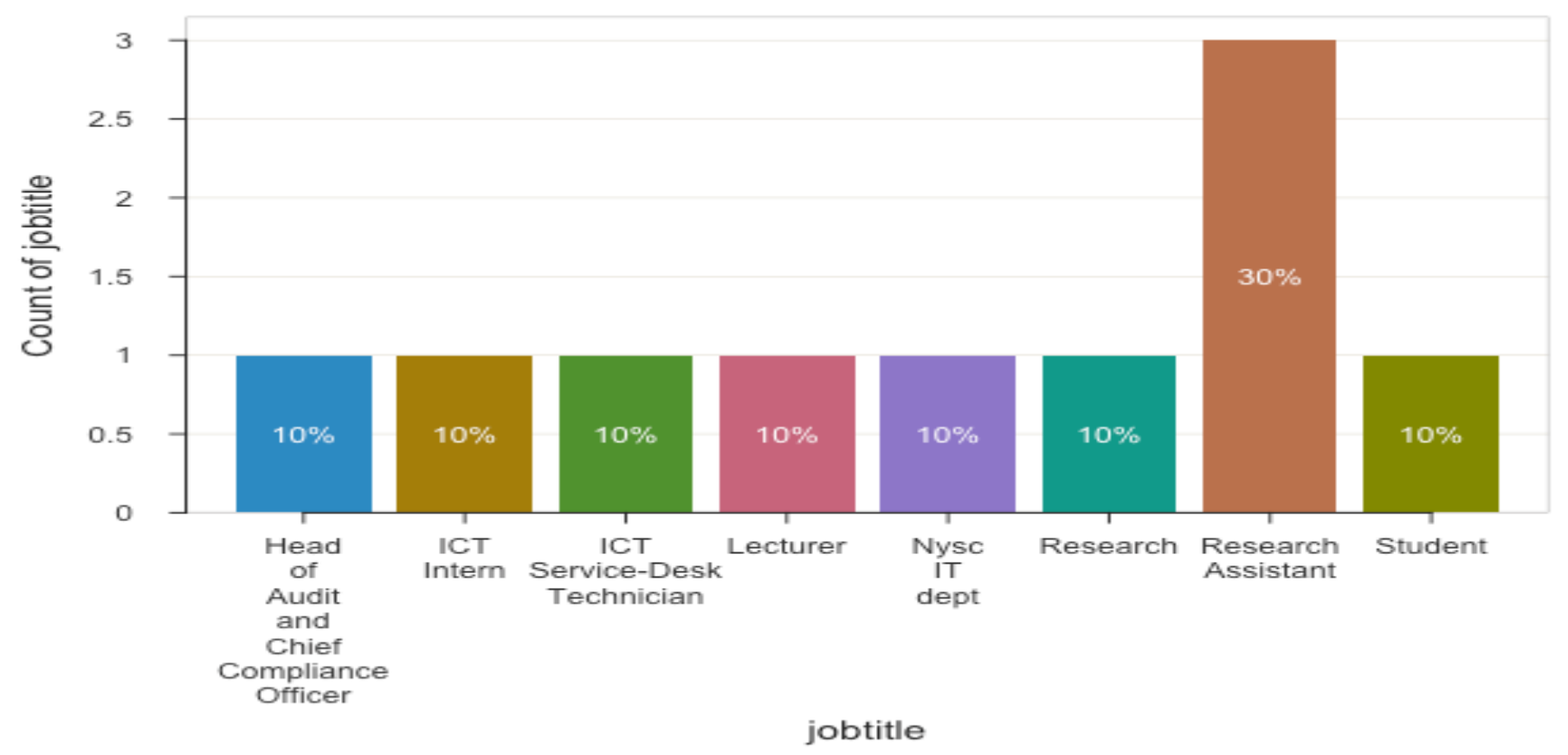
- Performance Expectancy
- Effort Expectancy
- Social Influence
- Facilitating Conditions



Mixed Methods

- Participants - (n=10)
  - Purposefully recruited
- 60% of participants - age 25-34
- 70% - work full time
- 20% - work part-time
- 10% - unemployed




Count of jobtitle
3
2.5
2
1.5
1
0.5
0
10%
10%
10%
10%
10%
10%
30%
10%
Head of Audit and Chief Compliance Officer
ICT Intern
ICT Service-Desk Technician
Lecturer
Nysc IT dept
Research
Research Assistant
Student
jobtitle

Methods

- Design
- Materials

Methods

- Measures
  - Quantitative - UTAUT Scale
    - Four subscales
    - 16 items
      - Using virtual reality would enable me to accomplish tasks more easily
      - Learning to operate the virtual reality headset would be easy for me
      - People who influence my behaviour think that I should use virtual reality for work
      - Virtual reality is compatible with other work tools I use
  - Qualitative - Interview

Findings

- --- pe ---
  - n miss mean sd min mdn max
- 10 0 78.150 20.108 46.250 81.375 100.000
- --- ee ---
  - n miss mean sd min mdn max
  - 10 0 84.900 13.432 58.750 86.875 100.000
- --- si ---
  - n miss mean sd min mdn max
  - 10 0 48.850 29.110 5.250 46.375 96.500
- --- fc ---
  - n miss mean sd min mdn max
- 10 0 49.800000 24.316940 17.000000 49.666667 85.000000

Discussion

- Enhancement of performance on tasks and productivity will likely affect adoption and use behaviour.
- Users are more likely to adopt VR technology with an interface that is simple, practical, useful, desirable.
- Users are likely more concerned about their performance and the effort to use VR than social influence.
- Lack of holistic digital framework will likely affect adoption and use behaviour.
- More attention should be drawn to “escapism” in VR.

Thanks!


10 Characters
Cloth 1
1. School Uniform
2. School Uniform
Clothes