**LITERATURE SURVEY**

The concept of understanding a person by conducting some tests is not new but when people have to work in team or group, it requires people to have some self-reflection, understanding and learning. This can be possible only when they have access to the tools that can map a character and help in understanding same. This is very difficult to achieve using conventional testing methods as quiz like methods for same are ambiguous and other exams focus more on memory and processing capabilities of the brain than the humane side of a person.

Artificial intelligence (AI) is the intelligence exhibited by machines or software. It is also the name of the academic field of study which studies how to create computers and computer software that are capable of intelligent behavior. AI research include reasoning, knowledge, planning, learning, natural language processing (communication), perception and the ability to move and manipulate objects. There are a large number of tools used in AI, including versions of search and mathematical optimization, logic, methods based on probability and economics, and many others.

In TAS, AI covers the processing pattern recognition in a heuristic manner. Saved patterns will be accrued from information provided by the work of Carl Jung and Meyers- Briggs Research Data. Backend for AI will be developed using Prolog (tentative) and a suitable database technology.

**2.1 Current Applications:**

Currently many applications for the same motive are available:

**1. MBTI excel quiz** –

A set of questions and answers mapped on an excel Spread sheet. Upon completion of answering, a new sheet shows what type of personality user belongs to. Then user must open the pdf file containing the personality-specific information.

Pros – High accuracy of given answers, all researches are consolidated and verifiable.

Cons – Dull, unintuitive, user may lose interest, too much information to go through for some.

**2**. **16Personalities** –

It is a website where free personality test is provided to get a 'freakishly accurate' description of who you are and why you do things the way you do.

Pros – Intuitive makes use of sliders for relative accuracy of input. Good UI. Top notch Presentation of o/p

Cons – Unverifiable sources, accuracy of output not deterministic, seems like another pass- time, requires internet.

**2.2 Future Application:**

TAS is based on the research of Myers–Briggs research on the personality types. The **Myers–Briggs Type Indicator** (**MBTI**) is an introspective self-report questionnaire designed to indicate [psychological](https://en.wikipedia.org/wiki/Psychology) preferences in how people perceive the world and make decisions.

These personality types are useful in many domains like:

**Education** – Personality types play a very important rule in the domain of education as it reflects learning style of people in terms of strengths, weaknesses, skills, and interests.   
Application Areas:

* Educator coaching and development
* Learning and teaching styles
* Curriculum differentiation in elementary, secondary, higher education.
* Type and cultural differences in education
* Educational aptitude and achievement
* Educational research

**Careers -** Research has clearly shown that people are attracted to careers that allow them to make use of their natural type preferences. Though all four letters of your type can affect the kind of career that interests you, the two middle letters (ST, SF, NF, or NT) of your type have a particular importance for your career choice.

#### Application Areas:

* Self-understanding
* Career selection
* Job satisfaction
* Identification of preferred work environments
* Navigation of the job search and interviewing processes
* Specialization within an area of expertise

**Relationships -** Type differences in relationships can be a source of growth and/or conflict. However, there are no best or more successful combinations of types in relationships. Two persons who share all four preferences are as likely to get along easily as are a couple who share only one or two preferences. Understanding and applying type theory to relationships can enhance communication, provide people with a better understanding of how they deal with conflict, and provide tools for a variety of situations including successfully making decisions and engaging in activities together.

Application Areas:

* Child development
* Spousal / partner relationships
* Parenting Skills
* Type for teens

**Organization Development** - Over the last 20 years, type has permeated most aspects of organizational life. Employee development and training in “soft-skills” has become an accepted component for the achievement of organizational effectiveness and success. Consultants and internal practitioners provide training and development for individuals, teams and leaders at all organizational levels.

Application Areas:

* Improvement of communication
* Problem solving / decision making
* Conflict resolution
* Leadership development
* Team development
* Sales training and customer service
* Project management
* Stress management
* Emotional intelligence
* Diversity and multicultural work
* Time and resource management

**2.3 Challenges in Pattern Generation:**

TAS will provide next question (scenario) based on the response of current question (scenario) hence system should be made intelligent enough to generate questions based on response provided. This sequence of questions will be stored in the database of the system.

To efficiently search/ analyse stored patterns for generating next question is time consuming. Hence designing an efficient system is another major challenge.