**Introducing programming in study of Psychology**

**Abstract:**

When programming and psychology is collaborated to reduce the human effort in analysis skill development.

Creating an AI that could analyse a person's psychological behaviour gives us a great insight about that person.

The collaboration of both can be used in the following areas:

In companies where job interview is being conducted, with the help of AI a better insight of the person is received, thereby helping the company to decide if he is eligible or not.

AI when implemented in public places, due to its ability to detect emotions and moods, theft, terrorism can be avoided. A stitch in time saves nine!

AI can be used to solve criminal cases. Better lie detection implies faster the method to find the criminal.

Teaching is an art, if a teacher cannot understand the psychology of his/her's students, knowledge, time and energy are wasted. AI can be used to gain statistics and improvise teaching methods to obtain best possible outcome.

Again in work places, if a person has got an another person in trouble, innocence can be proved easily.

**Definition 1**: ***Psychology*** is the scientific study of the human mind and its functions especially those affecting behaviour in a given context.

**Definition 2: *Behaviour*** is the he way in which one acts or conducts oneself, especially towards others.

**Parameters of Psychological assessment: (In human methodology)[1]**

\* Optional parameters

● Specify the construct(s) targeted by the instrument

● Specify the domain of the construct

● what is to be included

● what is to be excluded

● Specify the facets and dimensions of the construct

● factors of construct to be covered

● dimensions (e.g., rate, duration, and magnitude)\*

● mode (e.g., thoughts and behavior)\*

● temporal parameters (response interval and duration of time-sampling)\*

● situations\*

● Specify the intended functions of the instrument (e.g., brief screening, functional analysis, and diagnosis)

● Select assessment method to match targeted construct and function of assessment\*

● Initial selection and generation of items (e.g., questionnaire items, behavior codes, psychophysiological measures, and behaviors monitored)

● from rational deduction

● from clinical experience

● from theories relevant to the construct

● from empirical literature relevant to the construct (e.g., studies on construct validity of potential items)

● from other assessment instruments (i.e., borrowing items from other instruments that have demonstrated validity)

● from suggestions by experts\*

● from suggestions by target population\*

● Match items to facets and dimension

● use table of facets to insure coverage (include all relevant dimensions, modes, temporal parameters, and situations)

● generate multiple items for each facet

● insure proportional representation of items across facets (i.e., the relative number of items in each facet should match the importance of that facet in the targeted construct)

● Examine structure, form, topography, and content of each item

● appropriateness of item for facet of construct

● consistency and accuracy, specificity and clarity of wording, and definitions

● remove redundant items

● Establish quantitative parameters

● response formats and scales

● time-sampling parameters (sampling intervals and durations)

● Construct instructions to participants

● match with domain and function of assessment instrument

● clarify; strive for specificity and appropriate grammatical structure

● Establish stimuli used in assessment (e.g., social scenerios, and audio and video presentations) to match construct and function

● Have experts review the results of methods.

● quantitative evaluations of construct definition, domain, facets, mode, and dimensions\*

● quantitative evaluation of relevance and representativeness of items and stimuli

● quantitative evaluation of response formats, scales, stimuli, situations, time-sampling parameters, data reduction, and aggregation

● match of an instrument attributes to its function\*

● qualitative evaluation–suggested additions, deletions, and modifications

● Have target population sample the results–review quantitative and qualitative evaluation of items, stimuli, and situations\*

● Have experts and target population sample rereview the modified assessment instrument\*

● Perform psychometric evaluation and contingent instrument refinement–criterion-related and construct validity, and factor analysis

**Implementation:**

Machines have changed the art of computing since ages. New strategies of calculation, new areas for considering innovations still human intelligence is the primary key to unbind a set the mysteries of the whole causal system. Artificial intelligence is the method adopted to work on for the system that maps the psychological aspects of human life.

There exist systems that analyse the *human traits* but very few exist that could associate with a result in terms of medical research.

Conventional coding with the above mentioned parameters. The advantages of this system is to provide human trait analysis in medical research, feelings, lie detection system and so on. And machine learning in this context is complex to handle about the test cases. As Human nature is to be biased to some trait. AI model could create a functional system that shows no bias and can be developed by the knowledge of expertise.

**References:**

**[1] Content Validity in Psychological Assessment: A Functional Approach to Concepts and Methods**

Stephen N. Haynes

David C. S. Richard

Edward S. Kubany