# The Uniqueness of Brain Profiler: A Discovery-Leading Integration

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**Uniqueness:**

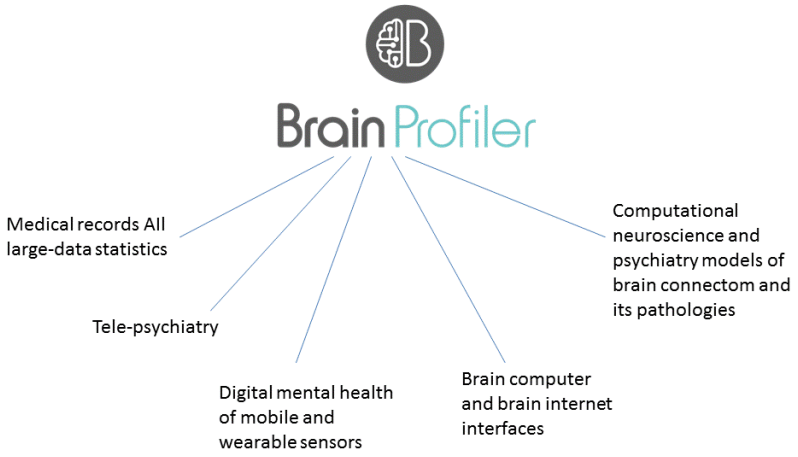
The uniqueness of 'Brain Profiler' originates from 'Clinical Brain Profiling (CBP 1-20)' a set of theoretical constructs capable of predicting the causes for mental disorders. CBP is a set of comprehensive testable predictions for mental disorders and the Brain Profiler application harnesses diverse emerging technologies to validate CBP thus leading to effective psychiatric treatment, improved wellness and improved brain mental capabilities. Brain Profiler is an integrative platform for most of the new psychiatric-related technologies, it is also a guidance for a developmental process for future discoveries, and is designed to become the standard for future brain pacing.

In a world of Digital Mental Health where most technological applications aim at computerizing regular psychiatric activity and diagnosis, Brain Profiler is not more-of-the-same, it stands out as an innovator ambitiously aiming to reformulate mental disorders by predicting their causes, validating these predictions and discovering the origins of the disorders so they can be fixed and cured. In other words Brain Profiler will become the algorithmic platform for all future brain pacing technology.

**The integrator:**

We are living in an exciting era of technology. All large-data statistics are applied ubiquitously including medical psychiatric records. Tele-medicine and tele-psychiatry are everywhere and digital mental health (DMH) of mobile and wearable sensors is on the rise. Brain computer and brain internet interfaces are becoming a major interest of every big and small technology initiative. This is due to the growing appreciation that harnessing of brain-power marks major future breakthroughs for humanity. For all these technologies to become effectively meaningful and applicable, Brain Profiler can become the neuroscientific hi-tech leading integrator, the trajectory to discovery and achievement (Fig 1).

Fig 1




**CBP Wisdom-Tech:**

"Wisdom begins by calling things by their correct name" states an old Chinese adage. CBP names mental disorders correctly by translating psychiatric phenomenology (descriptions) into brain-related disturbances, thus reconceptualizing mental disorders as brain disturbances. Such reconceptualization is literature-based related to advances of computational neuroscience and psychiatry. Tele-medical and mobile-wearable sensors map onto the CBP framework inputting descriptive phenomenological psychiatric assessments. The CBP algorithm predicts the brain disturbance which is then validated using accumulated electrophysiological brain-imaging inputted from wearable wireless consumer EEG devices

**Here and Beyond:**

Brain Profiler is currently all you want to have in a clever tele-psychiatry electronic medical record. It registers your patient's assessments and treatments in easy-to-use sliding-cursor rating-scales. It keeps contact with the patient by registering his ongoing condition monitoring his complaints. Using clever-follow-up with alerts and indicators you can effectively manage large (and small) outpatient clinics, preventing deteriorations and avoiding hospitalizations. Plugins carrying cyber mobile and wearable sensors information map onto the clinician and patients data-sets offering reliability to the diagnosis on the one hand and meaning to the digital-data on the other hand. The data-sets collected are based on the CBP formulations thus built-up statistical data offers not only prognostic and therapeutic forecasts, but also a personalized testable prediction for the causes (etiology) of the disorder. Such predi ctions are then validated by electrophysiological brain imaging collected from head-mounted EEG consumer-devices. The large-data statistical

analysis (e.g., deep learning) takes Brain Profiler beyond current psychiatry to the future of etiological psychiatry and real brain-pacing cures of brain optimization and enhancement.

**Skills:**

Advanced skills in the fields of clinical-psychiatry, computational-neuroscience, signal–processing, brain-imaging, and Digital-mental-Health are required to advance with the Brain–Profiler project. Thus leading Brain Profiling ought to be in the hands and responsibility of an interdisciplinary professional, preferably a CBP expert or developer.

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