HR managers are often at their wit’s end trying to determine the effectiveness of the training they have organized or imparted. In certain training programs, there are tests or evaluations that can be carried out to determine whether the participants have learnt all that they were supposed to. However, this may not be practical for all types of training. While it is a constant challenge for HR managers to get people to attend scheduled trainings, the fear of tests and grading may scare away the few brave souls who have the courage to show up. Besides confirmed retention of informational inputs is no guarantee of eventual successful application in real life.

Asking supervisors to assess if the performance of their team members has shown improvement post a training session would be unfair. In any training program, it is likely that participants have come together from different verticles and hence report to different supervisors as well. To get assessments done by individually varying yardsticks may complicate the assessment of the effectiveness of the training program. A supervisor who has a team of 10 may recommend three of them for a certain learning input while doing their performance appraisals in March, based on certain kinds of behaviour displayed sporadically over the last 12 months. The HR department may choose to provide this input through training sessions scheduled in June. It will be tough for the supervisor to fill any assessment form received in August asking if the training has brought about the desired change, and if so, to what degree, in each of his three team members. If one of the participants, by now, has a different supervisor, the problem would further confound. Supervisors generally loath to admit infallibility and forms are suitably filled at different points of time after the training by both the participant and his/her boss leading to paper process compliance. However, there are many HR managers who personally share their dilemma about measuring training effectiveness, especially for soft skill inputs provided to ‘improve attitude’ and ‘change behaviour’.

What if mental state could be measured, like one’s pulse or blood pressure? Would it be possible to perform pre and post measurements, and make pronouncements regarding training effectiveness? What if measurements could be made in those situations where the behaviour was inadequate to see if change had actually occurred? What if assessment of training need was based on such measurements? These questions may sound far-fetched; however, there is little possibility of getting affirmative answers to each of them even if the answers were just around the corner. Last year a market research firm called SharpBrains came out with a report with the intriguing title, “The State of the Digital Brain Health Market 2012-2020”. In this report, the agency projected the current state and future direction of the industry building up around direct measurement and the change of brain state to improve health and performance. The research covered 200 companies operating in this market and polled 3000 experts and early adopters. It singled out five companies for special attention, some of whom already have tools to directly measure brain performance. Two of these are especially fascinating.

The first is NeuroSky, which uses fairly unobtrusive sensors to measure brain waves,
and complex processing software to infer brain states such as attention and calmness. Their website has pointers to academic research that validates the accuracy and usefulness of the technology. Their products include Neocomini, which are innovative signaling devices, worn on the head that change their physical orientation depending on one’s levels of stress, calm and attention. Through another interesting offering, Thinkgear AM offers a way of controlling the operation of other physical devices, such as toys and appliances, merely through the control of brain states.

The second and currently more talked about company is Lumosity. This company, founded and headed by an individual of Indian origin, has raised more than USD 70 million funding, and has opened up its database, as part of the Human Cognition Project, to any researcher who wants to use it for generating insights on human brain performance. Several researchers have used the Lumosity data to generate papers in respected academic journals such as Frontiers in Human Neurosciences. Some of the findings are immediately useful (e.g., human beings need seven hours of sleep a day for optimum performance) while some are counter-intuitive (e.g., modest amounts of alcohol, believe it or not, actually improve mental performance). Lumosity has used the gaming approach to exercise measure and improve brain processes. They have their critics, but also have their supporters; Shelli Kesler, of Stanford University, for example, who found improved executive performance in women, was exposed to Lumosity exercises. Other studies have reported delayed onset of Alzheimer’s disease, and generally improved cognitive performance and pre-frontal cortex brain activity.

The market for digital brain health monitoring was already worth USD 1 billion at the end of 2012 and while much of the commercial application currently is in the area of healthcare, peripheral uses are already evolving. For instance, at least one large insurance company is planning an offering that will significantly reduce premiums for people using Lumosity, to improve their mental fitness. It is only a question of time before applications emerge in the areas closer to those that interest corporates. In fact, one sees great synergy between the offerings from NeuroSky and Lumosity. One seeks to control brain processes through accurate direct measurements while the other seeks to improve those processes and accurately measure improvement in performance. It will not only direct the measurement of brain processes, it will provide a useful way to measure the direct impact of the developmental inputs. However, it may also provide a direct way of measuring effectiveness on the job (e.g., through the measurement of attention and calm during the performance of critical tasks). Like all technology changes, it carries the promise of multiplying the performance of managers while also holding out some threats of partially replacing them!

Gautam Brahma is a management consultant.