



COGSPEED™

“COGNITIVE RISK ASSESSMENT FOR CONTINUAL ACCESS AUTHORIZATION”

THE NEEDS

COGNITIVE RISK ASSESSMENT

Currently, access to secure areas is limited to identity verification. But what if the person at the door or signing out a commercial vehicle is extremely fatigued, on drugs, or drunk? How would you know? How would you rapidly and effectively evaluate them to deny access to high value assets or prohibit operation of a vehicle? - especially if the gateway is unguarded. Modern security procedures need to assess cognitive integrity along with identity. But the goal of ensuring performance ability prior to granting access is believed unattainable. This needs to change!

PROTECT EVERY ASSET NEEDING PERFORMANCE ASSURANCE

An extremely wide range of high-value assets go unprotected from the threat of human error, right now! There are countless examples of operators needing cognitive evaluation prior to receiving access authorization, such as:

- Truck drivers, mariners, pilots, engineers
- Nuclear control personnel
- Construction Workers
- Power plant employees
- Refineries/oil field workers
- Financial managers
- Security guards
- Medical staff
- Computer operators
- Emergency responders
- Military troops
- Athletes

CONTINUAL ASSESSMENT AND INSTANT REPORTING

What If after access is granted the person becomes too fatigued or takes a pain medication and is unable to function safely? Cognitive risk assessment needs to be done throughout the work cycle as often as necessary - at the job site, on the vehicle — anywhere. And then, management must be rapidly notified to take effective corrective action.

THE SOLUTION

Now, instead of just verifying personal identity, a revolutionary technology is being developed to authorize access to any sensitive area based on a person’s mental fitness to perform their job safely and efficiently, throughout their duty cycle. Functioning like a “speedometer for the brain,” **CogSpeed** quickly and accurately measures instantaneous information processing speed, which is closely associated with how well one can perform complicated real-world tasks. If processing speed is below normal, it indicates a high risk of performance impairment.

THE CUTTING EDGE PRODUCT - *CogSpeed*

A SINGLE, UNIVERSAL TOOL SENSITIVE TO FIVE MAJOR CAUSES OF COGNITIVE IMPAIRMENT

- Fatigue
- Legal, prescription, and illegal drugs
- Alcohol
- Brain trauma/Concussion
- Aging

FIVE INTEGRATED COMPONENTS

- **CogSpeed Reliability Test** - Download to any mobile device
- **Gray Matter Metrics Database** - permanent, secure storage of all results, including geolocation
- **E-mail Alerting System.** - instant notification of cognitive impairment
- **Human Risk Assessment Monitor** - Immediate display of the cognitive status of the entire workforce
- **Control Portal** - Efficient user enrollment and account management



SOPHISTICATED HUMAN FACTORS DESIGN PRINCIPLES

- Specifically developed for real-time monitoring in the real world
- Minimal intrusion - fast results in about 45-90 sec
- Easy to learn and no language requirement
- Works on any mobile device, anywhere
- Repeated testing as often as the situation demands
- Adaptive algorithm detects faking
- Password-protected login
- Real-time management involvement in corrective action

GMM



THE VALUE PROPOSITION

BENEFITS AND COST SAVINGS

- Save lives and avoid accidents
- Reduce human error and improve performance
- Lower risk of personnel initiated security mistakes
- Avoid costly equipment loss and damage
- Immediate, simple, inexpensive drug and alcohol screening
- Motivate improved rest and health habits
- Support big data analytics for operational decisions
- Minimize lawsuits and lower legal fees
- Reduce liability exposure for lower insurance costs
- Improve corporate image with pro-active enhancement of public safety

THE BUSINESS OPPORTUNITIES

Providing software as a service (SaaS), rapid and unlimited cognitive testing, complete data storage, impairment alerts by e-mail, and entire fleet data visualization can be achieved for less than a dollar a day per employee. Combining minimum overhead, high ROI, and advanced, proprietary technology, *CogSpeed* has the potential to create and dominate the world market for behavior-based biometrics for access control.

Because of the universal nature of this single tool, it has endless applications for situations where cognitive impairment must be evaluated. For example, The Department of Defense can for the first time have reliable, real-time monitoring of troop fatigue on the battlefield. The Department of Transportation can set enforceable, performance based regulations for monitoring commercial truck driver fitness to drive before and during his trip, instead of relying on the current, simplistic driver rest period logs.

There is also a vast opportunity to provide self-awareness information to the consumer. Many would like to know if their cognitive capability has declined due to fatigue, drugs, or alcohol. In any personal situation where people are just curious, or if they need a reliable indicator of their limitations, *CogSpeed* can help. In addition, it has uses in monitoring progress of senility or medication effects at nursing homes or remotely by doctors and family members. Initial concussion screening for athletes can be performed right on the playing field.

CONTACT

To find out how *CogSpeed* can deliver a revolutionary solution for your organization's cognitive monitoring requirements, call **Gray Matter Metrics, LLC**, at **(210) 867-7172** or e-mail lperel@me.com.

