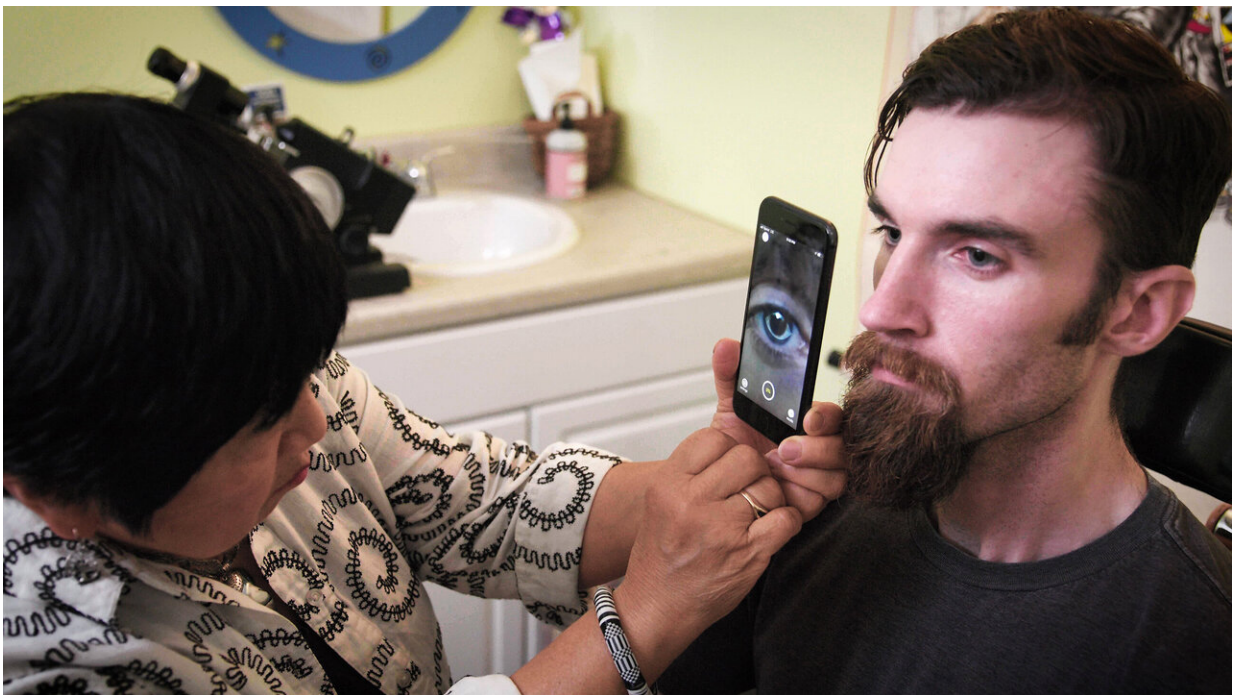


# Improved Reflex app from brightlamp provides diagnostic data for concussions in seconds

August 8 2019, by Michael Snyder

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An application created by brightlamp called Reflex allows a broad spectrum of medical professionals to securely capture critical diagnostic optical data in about five seconds. Credit: Purdue University

Capturing objective data in about five seconds that can aid concussion diagnoses through an iPhone, the Reflex PLR Analyzer, an industry-

disruptive diagnostic tool for traumatic brain injury and various cognitive issues, is rapidly advancing in the healthcare market with the launch of a new version of Reflex, brightlamp's premier mobile pupillometer technology.

Called a "truly breakthrough innovation in the health care space" by Indiana University innovation expert Donald F. Kuratko, brightlamp's Reflex product allows a broad spectrum of medical professionals to securely capture critical diagnostic optical data.

"The advanced functionality of this new version of Reflex truly helps unlock the diagnostic power of the pupil," said Kurtis Sluss, CEO and founder of brightlamp, a Purdue University-affiliated company.

"Brightlamp's patented technology platform captures and measures pupillary light [reflex](#) parameters, which has been proven to be an objective, quantitative and non-invasive diagnostic means for a broad spectrum of clinical conditions."

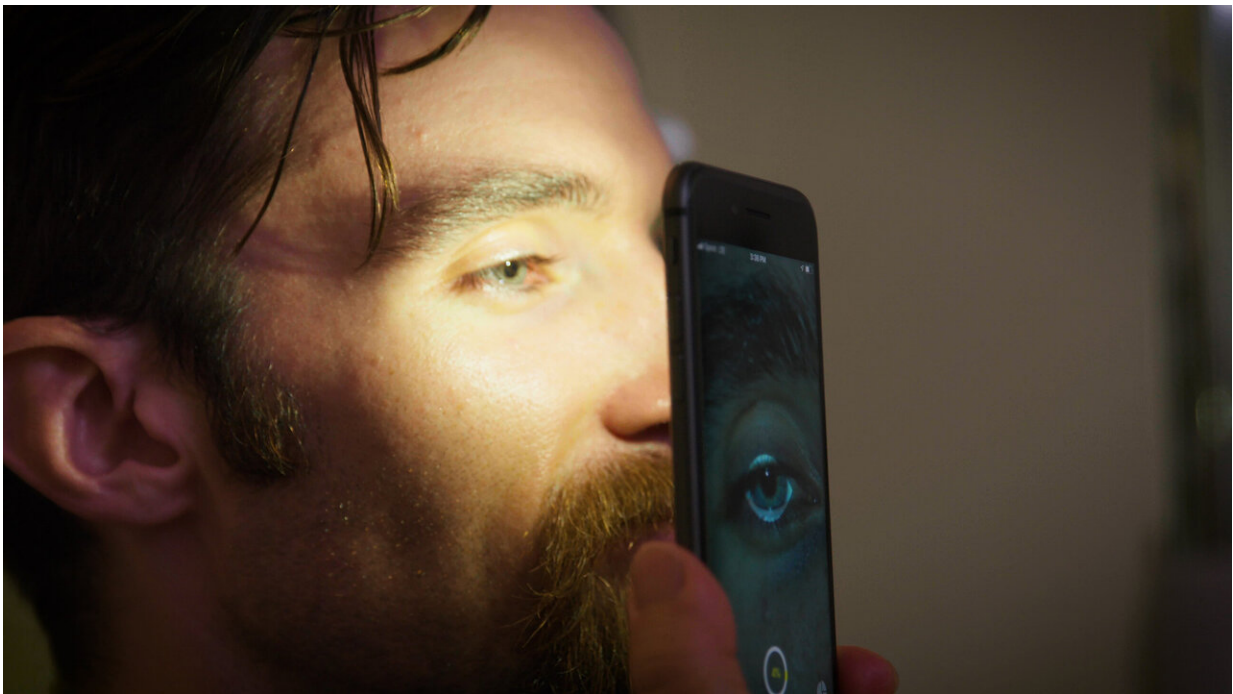
Reflex's patented SaaS platform leverages the user-friendly HD Apple iPhone video camera, which serves as a secure mobile data collection and transmission platform for Reflex's cloud-based evaluation software.

"An optometrist, critical care nurse or medical technician can simply bring up the brightlamp app on their iPhone, hold it at the optimal distance from the patient's eye and brightlamp's machine learning algorithm takes it from there," Sluss explained. "Its simplicity, safety and ease of use provides a sideline tool to a variety of medical professionals – such as athletic trainers who need immediate, on-the-field objective data to help diagnose a possible concussion or [traumatic brain injury](#)."

Further, Sluss pointed out: "Now the pupillary light reflex has the potential to become both an optometric or neurological vital as well as a specific biomarker for various medical conditions such as autism,

Alzheimer's and glaucoma."

The secure mobile Reflex platform offers near-instant repeatability of physiological and unbiased tests, which allows diagnosis and recovery monitoring for multiple neurological applications through pupillary light reflex measurements. The new Reflex upgrade offers medical professionals a new opportunity to elevate the standard of care for their patients across of a spectrum of new diagnostic capacities, according to Sluss.



Reflex, an application created by brightlamp, uses premier mobile pupilometer technology to diagnose concussions, traumatic brain injury and various cognitive issues. Credit: Purdue University

Apart from the highly mobile Reflex technology, other diagnostic

methods and pupillary light reflex products presently on the market are either subjective (for example, an existing pen light test methodology that requires interpretation) or require expensive, clumsy and immobile hardware devices.

In this upgrade, the Reflex mobile technology now includes test processing on the iPhone that does not require a network connection for capturing immediate diagnosis data. According to Sluss, the new algorithm "raises the bar for medical imaging" by further increasing the reliability of Reflex-captured data over competing products. The new version of Reflex includes access to a secure web portal that allows an opportunity to view, export and manage confidential data with ease. "All of these critical advancements were developed to help further streamline a medical professional's responsibilities and workflow," Sluss said.

Response has been positive to the new Reflex update. Dr. Mary VanHoy, neuro-developmental optometrist said, "It's time that we have something more high-tech to measure pupil response and be consistent from one practitioner to another." VanHoy, who is also owner of Eyes for Wellness, added, "Reflex now offers the opportunity to have quantifiable data that can be trusted."

Kathy Sparks, the sports medicine manager at Indiana University Health, noted, "I like the convenience of having this on my cell phone and the simplicity of obtaining data." She emphasized that "this tool provides objective measurements that give immediate feedback."

"As the world's first fully functional mobile pupillometer that requires no additional hardware, Reflex adds immediate value to diagnostic services rendered in a practice setting and can elevate quality of care for optometrists, neurologists, critical care nurses and other medical professionals engaged in providing high-quality and reliable patient services," Sluss said. "From the optometry clinic to the football field,

Reflex can provide critical and objective diagnostic data in a matter of seconds."

The Reflex diagnostic tool for concussions and traumatic brain injury represents the first SaaS product from brightlamp. Future brightlamp SaaS products and services are expected to help diagnose a wide variety of cognitive-related issues and functions, particularly as quantitative pupillometry advances as a diagnostic tool for cognitive functionality and clinical issues.

An opportunity to evaluate and sample the Reflex technology is available, including a short-term free trial.

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