



WALTER O'BRIEN

INNOVATOR, ENTREPRENEUR, VISIONARY

BY ALEX SIMON

Walter O'Brien is what you might call a professional overachiever. He was hailed in his native Ireland at age 16 as "the Irish Bill Gates," recognized in 1989 at age 14 as a child prodigy with an IQ of 197, as well as being the Olympic and national Irish computer programming champion.

O'Brien formed his own company in 1988, Scorpion Computer Services, which has grown from being Ireland's leading supplier of personal computers (more than Dell and Gateway combined, up to 1993), into one of the world's leading developers of artificial intelligence technology specializing in security for the world's airports and DNA testing for crime scene technicians.

The US government recognized O'Brien as being of national interest to the US economy, and granted him an Extraordinary Ability EB 1-1 Visa, an honor accorded to previous recipients such as Winston Churchill and Albert Einstein. He is now an American citizen.

"Part of my artificial intelligence degree involved what they call 'The Frankenstein Effect', where in you create something that's more intelligent than the creator. I decided to use my favorite game, chess, and created a program that was smarter than I was," O'Brien explains. He returned to a variation on this idea ten years later, in 2009, developing *The Scenario Generator*, or ScenGen, a model-based combinatorial

finite state engine to generate 1.6 million test scenarios per second or 250 man years of work every 90 minutes.

This was the second of Walter's inventions previously thought to be impossible. Intel had tried to produce a system like this for 30 years without success. New applications for ScenGen are still being discovered, but current applications include exhaustive testing for mission critical computer systems such as air traffic control, airport security, nuclear plant control, credit card or trading transaction systems; finance management; white collar crime; DNA; disaster recovery and business continuity; cyber security; intelligence analysis; disease, drug or chemical testing;

financial compliance fraud and abuse; legal, political analysis; and education and research.

While some may argue that there is little art in the creation of technology, O'Brien disagrees. "When I design a program or a system, it's a euphoric feeling, much as I imagine someone like Cezanne felt when applying paint to canvas or Beethoven felt when composing a symphony. All ideas are creative, and every invention begins with that initial springboard of an idea in the inventor's mind." □

(Pictured): Walter O'Brien.