From: Office Center
Sent: Saturday, March 2, 2019 9:35 PM
To: Eligibility2019
Subject: 2019 Revised Patent Subject Matter Eligibility Guidance

We write in support of the 2019 Revised Patent Subject Matter Eligibility Guidance. This guidance should improve the clarity, consistency, and predictability of examination and post issuance review of patents by the USPTO. Recent rulings by the courts and the USPTO have been ambiguous and contradictory and have damaged America's reputation as an innovation center. Even experienced attorneys are not able advise inventors as to whether their inventions are patentable. In cases where a patent has already been issued, there is no certainty as to whether it will be upheld, this totally eliminates domestic inventors motivation to invent. The new guidelines should provide a thorough, consistent, and logical application of the current law on subject matter eligibility.

The Same Handful Of Silicon Valley Billionaires Steal The Life Work of Each Inventor They Meet

- Inside The Silicon Valley Cartel

In Silicon Valley there is a Cartel of "Venture Capitalists" who like to call entrepreneurs in, examine their technologies in 'fshing expeditions', say "we can't see any use for it", copy the technology and launch it themselves; after
black-listing the entrepreneur. That is their "playbook."

The New York Times released an article (http://www.nytimes.com/2016/01/24/technology/larry-page-
google-founder-is-still-innovator-in-chief.html) describing how Google's bosses covertly skulk around at tech parties in order to snatch technologies from unsuspecting entrepreneurs. The new start-up hopeful in Silicon Valley must
watch for these technology raiders with a cautious eye.

Google, in fact, put their lawyer in charge of the U.S. Patent Office and spent nearly a hundred million dollars lobbying to try to "outlaw" small American inventors because Google is so afraid of eventually having to pay for all of the tech it poor all of the tech it poached. Kleiner Perkins, Greylock Capital, Draper Fisher Jurvetson, and 90% of the Silicon Valley 'VC's' on Palo Alto's Sandhill Road have engaged in this 'idea rape' intellectual property theft and clone efort. Facebook, Google, YouTube, and other big name companies, were poached from small start-ups that had the
original versions up and running when Silicon Valley VC's just came by and copied them without ever paying the inventors.

Inventors Who Changed the World and Got Screwed in Return

- By
-  Karl Smallwood
-  Mike Floorwalker

As we've discussed before, just because your hard work and perseverance led you to create something that changes the world, it doesn't mean that you'll get fame, fortune, or the slightest bit of recognition out of it. In fact, some inventors get so little credit that we completely forgot about them in our previous article, and since we really don't like angering the ghosts of people who could probably invent a way to punch us from beyond the grave, here they are.

6

Siegel and Shuster, Superman's Creators

Robert Mora/Getty Images Entertainment/Getty Images

Jerry Siegel and Joe Shuster created Superman, the most famous superhero ever, perhaps with the exception of Spider-Man or that kid who changes the channel with his eyes in *X2*.

DC Comics

Superman can set a TV on fire with his eyes, which isn't as useful.

Debuting in 1938, Superman was an instant success. DC Comics soon followed up the "man in underpants punches criminals" concept with Batman, and that was it, there was no turning back: Siegel and Shuster's creation had started a multibillion-dollar

industry that is still going strong today, spawning toys, T-shirts, and, oh yeah, some of the highest-grossing movies of all time.

Nice one, Siegel and Shuster!

Alan Light

"Take it from us, kids: Work hard, change the world, and you too can see *absolutely no reward* from it!"

But Then They Got Screwed

"Nice one, Siegel and Shuster" is exactly what DC must have said, in a sarcastic tone, when the duo famously sold them all rights to Superman for a measly $130, a check that's now ironically worth hundreds of thousands of dollars.

The seller added $1,000 for every tear this thing soaked up.

At the time, no one suspected that the guy in blue pajamas that they'd been drawing would turn into a cultural icon -- so when he did, and Siegel and Shuster continued

getting squat, the pair embarked on perhaps the longest [redacted-profanity] in copyright history.

The duo spent the better part of their lives unsuccessfully trying to reclaim some part of their creation, only to be rebuffed time and time again. While DC raked in billions from Superman alone, Siegel and Shuster lived the lives of paupers. They were given a yearly pension in the late 1970s by Warner Bros. (which had purchased DC), but only because the studio couldn't afford the bad publicity with a Superman movie on the way.

"You're right, scrapping the costume is not going to help. Just pay them."

In 1999, three years after Siegel died, his family successfully won the rights to his half of his creation. A happy ending, right? Nope! This meant [redacted-profanity] to Warner Bros., who still refused to pay them a penny, leaving them to fight in court for another 10 [redacted-profanity] years. And the super[redacted-profanity] continues: More recently, documents disappeared from Siegel's daughter's attorney's office and somehow wound up in the hands of Warner Bros. executives.

5

Philo T. Farnsworth, the Farm Boy Who Invented Television

Getty

Philo Farnsworth, besides having the supreme honor of inspiring a *Futurama* character, was a serial inventor with a list of credited patents longer than his forehead.

Utah State History

And he had a HUGE forehead.

Among those patents was the one that made television possible: an "image dissector" that could capture images as a series of lines to be displayed electronically. If that isn't

impressive enough for you, consider the fact that Farnsworth came up with the idea at age 14, while growing up on a farm in Idaho, and first demonstrated it at 21, in 1927. If that didn't make you feel bad about yourself, it should have.

But Then He Got Screwed

When the young inventor applied for a patent at age 20, David Sarnoff of the Radio Corporation of America took notice. Radio had a pretty cozy spot at the center of the American living room at this point, and Sarnoff wasn't interested in letting that change. And if it did, then he would at least make sure that RCA would be the one getting rich from it.

The David Sarnoff Library

David Sarnoff: *Smug* magazine's Person of the Year, 1921-1967.

Sarnoff kept Farnsworth tied in a series of legal battles over the next decade using a number of [redacted-profanity] tactics, like hiring a Russian inventor to spy on him or using said inventor's earlier patents (which they could never get to work) to argue that *he* had invented TV. At one point Sarnoff just said "[redacted-profanity] it" and

started making TVs without paying Farnsworth. RCA was eventually forced to pay him a one-time $1 million licensing fee, but it wasn't worth the emotional stress that had left the man crippled.

And yet he looks so healthy.

Then the whole television business was put on hold when the '40s rolled around and the government told everyone to focus on building things that could kill Germans. The final blow came when Farnsworth's patents expired just as World War II ended ... and, what do you know, television sales skyrocketed. RCA, or anyone else for that matter, no longer had to even pretend to give a [redacted-profanity] about paying Farnsworth for his invention.

It wasn't until 20 years after his death that the government decided that Farnsworth probably deserved some recognition. No [redacted-profanity].

DC Pages

Following Farnsworth's final wishes, his statue is about to insert something into Sarnoff's anus.

4

Edwin H. Armstrong, the Father of FM Radio

American Stock Archive / Getty

When is the last time you listened to AM radio? Intentionally? The sound quality is so bad that most of the programming is reduced to things that already sound like [redacted-profanity], like conservative talk radio or a single, never-ending religious sermon in Spanish.

Getty

"Either way, I want to do the opposite of pray. Which is ... what, rape-arson?"

The much superior FM was invented by Edwin Armstrong, who created a system to reduce interference across radio bands in the 1910s. He continued his lifelong vendetta against crappy sound in the '20s, when he came up with frequency modulation (FM) as a way to reduce static. We will now reiterate that he developed all this technology nearly 100 years ago, and it's still present in all modern radios.

But Then He Got Screwed

Things seemed to be going swimmingly for Armstrong for a while, but it was at this point that a remarkably smug [redacted-profanity] came into the picture.

The David Sarnoff Library

"Miss me?"

Yes, David [redacted-profanity] Sarnoff from RC-[redacted-profanity]-A proceeded to mess with the life of yet another world-changing inventor. Sarnoff had built his empire with AM radio, so he decided that if FM was the way of the future, then he'd do anything possible to pull a John Connor on that future. Since Armstrong wouldn't relinquish his patent, Sarnoff made sure that RCA not only stopped supporting the development of the new technology, but actively tried to stop it.

In 1937, Armstrong used money from his own pocket to build the very first FM radio station. Another followed, then another, until by the mid '40s a string of stations known as the Yankee Network were busy convincing everyone of the superiority of FM, just by existing. And then it all stopped.

Radio Magazine

Armstrong was now forced to rely on his mutant telepathy.

In a [redacted-profanity] move of epic proportions, Sarnoff successfully lobbied the FCC to move the FM band to a different place on the dial, from 42 to 50 MHz to 88 to 108 MHz. While there were somewhat valid technical reasons for this, a happy side effect for RCA was that it made all of Armstrong's stations instantly obsolete.

It took decades for FM radio to recover. In the late '70s, it finally surpassed AM, but Armstrong was long gone by then, having committed suicide in 1954 by jumping from the 13th floor of his office building, presumably screaming "[redacted-profanity] SARNOOOOOOFFFF" all the way down.

Pay respect to his memory by printing out this picture and drawing a [redacted-profanity] on it today.

3

John Walker, Inventor of the Match

Getty

About [500 billion matches are used every year] in the United States -- that's the kind of volume you can do when your product sets itself on fire with every use. Before the invention of self-igniting friction matches, people simply used sticks that caught on fire when you, y'know, put them near fire.

Getty

It was a bad system.

This changed when John Walker, an English chemist born in 1871, began coating sticks in a number of dangerous-sounding chemicals until he happened upon one that, when struck against a surface, erupted in flames. Other self-igniting matches had been tried before, but they were extremely impractical, by which we mean that a lot of people probably lost their eyebrows or worse using them.

And clearly, eyebrows were very important to this man.

Walker's invention caught on fire, both literally and figuratively, and we still keep matches around today, despite the fact that we've all heard of lighters.

But Then He Got Screwed

Walker, unaware of the potential of his invention, worked on these new "friction lights" for about a year, then promptly forgot about the whole thing and stopped selling them. People close to him implored Walker to patent his friction light, since he'd just revolutionized the creation of fire and all. Walker declined, believing that his invention could better benefit mankind without a patent.

Others, however, believed that Walker's invention could better benefit mankind by making them rich.

Getty

"How does fire help humanity if it doesn't allow me to buy prostitutes?"

In 1829, another inventor named Isaac Holden independently came up with an improved version of Walker's friction matches. Like Walker, Holden neglected to patent his idea ... and that's where one Samuel Jones came in. Jones, realizing that Walker and Holden had effectively created one of the most useful inventions in the history of civilization and weren't making money from it, decided to do it on their behalf, because he was nice like that.

Almost immediately, Jones patented the exact same thing and began selling it under the name "Lucifers," because [redacted-profanity] it -- if you're gonna be evil, you might as well go to the source. Soon other brands began offering improved versions of the same thing, all for a price, of course. It wasn't until they were all dead that Walker was credited for his invention, and Jones for being a douchebag.

Getty

"To Samuel Jones, the man who made the modern bar possible!"

2

Stephen Foster, the Father of American Music

Getty

There are some tunes that you're just born knowing. If we somehow forced you to hum a melody right now, chances are that a great number of you would go with something like "Oh! Susanna":

Or "Camptown Races" (you know, the one that goes "doo-da, doo-da"):

Or maybe something more nostalgic, like "Old Folks at Home":

Man, can you imagine if all these songs had been written by the same guy, and that he'd been actively trying to get money from them? That dude would have been richer than Madonna and Bono combined.

Actually, all those songs and more *were* written by the same person, and he *did* try to cash in on them -- the keyword being "try."

Then "she" came around the mountain and snatched up all his royalties.

But Then He Got Screwed

In the 1800s, Stephen Foster wrote classics like "My Old Kentucky Home" and "Beautiful Dreamer" and over 200 other songs. Foster was a professional songwriter

before those existed. Seriously: The profession literally did not exist before Foster trailblazed it like a [redacted-profanity].

Not many pop stars can pull off a bow tie.

Of course, the problem with being the first in his profession was that there were no such things as "enforcing copyright" or "not screwing over songwriters" back then. Today, Foster would have earned obscene amounts of money from "Oh! Susanna" alone, but in 1848, he got exactly $100 for the rights to publish the sheet music, while the publisher made $10,000 selling his work.

Even when Foster became a minor celebrity, he continued getting nothing but pennies for every copy of his work that was sold. For his dozens of hit songs, he saw around $15,000 in royalties in his whole life. In the 1860s, he was dumped by his wife, who had probably had enough of sticking around with this dude who *wrote* like a rock star, and *drank* like a rock star, but was not *rich* like one. He died at the age of 37 after hitting his head on a washbasin, with around 40 cents in his pocket.

Some of which were melted down to make this statue.

His contributions can't be overstated. Not only did he create most of the conventions of popular songwriting as we know them today, but he also demonstrated the need for intellectual property laws by getting repeatedly screwed.

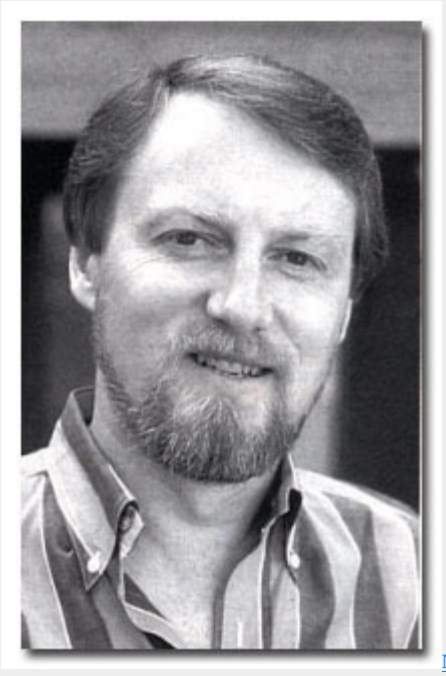
1

Gary Kildall, the Father of the Operating System

```
 CD-ROM Device Driver for IDE (Four Channels Supported)
 (C)Copyright Oak Technology Inc. 1993-1996
 Driver Version     : V340
 Device Name        : BANANA
 Transfer Mode      : Programmed I/O
 Drive 0:  Port= 1F0 (Primary Channel), Slave  IRQ= 14
 Firmware version   : ALPH

MSCDEX Version 2.25
Copyright (C) Microsoft Corp. 1986-1995. All rights reserved.
      Drive R: = Driver BANANA unit 0
A:\>
```

Gary Kildall is one of the guys we have to thank for the fact that you don't need to be a genius to use the ultra advanced computer you are looking at right now to search for porn. Thank you, Gary.



NNDB

Thank you for the porn.

In 1973, Kildall made life a lot easier for nerds everywhere when he created CP/M, a groundbreaking operating system for microcomputers (which is what they called any computer smaller than a semi truck back then). The program became the industry

standard for the next decade. This guy was basically Bill Gates before Bill Gates was Bill Gates.

Michael Ochs Archives / Getty

"It's cool, I'll just donate a bunch of money to charity someday when I'm all old and prune-faced."

But Then He Got Screwed

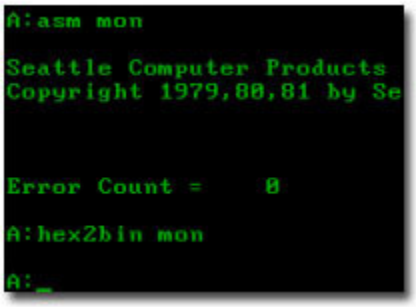
Of course, at the same time, Bill Gates was busy trying to become Bill Gates, and he eventually achieved that at Kildall's expense.

In 1980, IBM was getting ready to launch its first personal computer and needed an operating system to operate the [redacted-profanity] out of it. They first knocked on Microsoft's door, but Microsoft wasn't really into the OS-making business at that point, so they directed the IBM suits to Gary Kildall's company. However, as nerd lore has it, Gary picked that day to go flying (he was an amateur pilot), blowing off IBM and his chance at history.

DigiBarn Computer Museum

Let he who hasn't blown off a corporate giant to go flying cast the first stone.

Accounts differ on whether Kildall met the IBM suits that day or not, but either way, the company went back to Microsoft, totally forgetting the whole "We don't make OS's here" part. Not one to miss out on an opportunity, Bill Gates turned to local programmer Tim Paterson, who had built a CP/M clone he called QDOS (for "Quick and Dirty Operating System"), bought it for a paltry 50 grand, then turned around and sold it to IBM under the name PC-DOS.



The term "user-friendly" meant something very different back then.

PC-DOS, later renamed MS-DOS, was included in every computer IBM made, and, long story short, that's why roughly 90 percent of you are using Microsoft Windows right now.

Today, Kildall's name is barely known, while Bill Gates will be a household name in the [redacted-profanity] 25th century. Most of Kildall's innovations ended up being credited to other people -- and he can't even defend himself, having died in 1994 after falling down in a tavern, which pretty much just seems like his luck.

Getty

Today's lesson is, if you're an inventor, wear a freaking helmet.

They are the geniuses behind the curtain.

Disney designer Joe Rhode, The Segway's Dean Kamen, Tech guru Scott Douglas Redmond, Electric inventor Nikola Tesla, Frog Design's Hartmut Esslinger, WELL founder Larry Brilliant, Robert Moog of sound design fame, Ray Kurzweil, the creator of speech-to-computer technology, and many other innovation leaders, have novel architectures behind their genius.

They are fiercely competitive with each other and they each can see the world and understand more of that world than most of the people on Earth. They can see the future and build the future in ways that we poor "simple-minded" people have a hard time comprehending. They each have expanded intellect but they have paid for their ability with a price. In many of their cases, they have turned out to be "2E Gifted" impresarios who can't see numbers like the rest of us do.

Does trying to calculate a tip make you break out in a cold sweat? You're definitely not alone. Math can be intimidating, to the point where sometimes even the earth's most brilliant scientific minds have trouble crunching numbers. Let's take a look at some of these amazing geniuses who build the future but see numbers differently than you or I:

Micheal Faraday: It's hard to say which is more amazing: Faraday's discoveries or his life's story. Against all odds, this son of a poor blacksmith overcame class prejudice to become Britain's preeminent scientist and, in many ways, the father of modernity itself. If you've ever pushed an "on" button, you're in his debt. Faraday built the first electric motor—along with the first electric generator. He also invented the rubber balloon, laid the groundwork for today's refrigeration technology, and helped illuminate the mysterious world of electromagnetism.

Yet, despite all this, Faraday's upbringing never stopped haunting him. Like most impoverished boys, he'd received little formal education. Hence, Faraday's math skills left a lot to be desired. In 1846, he boldly proposed that visible light is a form of electromagnetic radiation. But because he couldn't back up the idea with mathematics, his colleagues ignored it. Enter James Clerk Maxwell (1831-1879). Believing the older scientist's hypothesis, this Scottish physicist & mathematician used ingenious equations to finally prove Faraday right eighteen years later.

Charles Darwin: Darwin came down with some serious math envy. As a collegiate student, he loathed the subject. "I attempted mathematics," reads Darwin's autobiography, "… but I got on very slowly." The affluent young naturalist went so far as to invite a tutor to join him at his summer home in 1828. After a few frustrating weeks, Darwin dismissed the man.

"The work was repugnant to me," he wrote, "chiefly from my not being able to see any meaning in the early steps in algebra. This impatience was very foolish, and in after years I have deeply

regretted that I did not proceed far enough at least to understand something of the great leading principals of mathematics, for men thus endowed seem to have an extra sense."

***Alexander Graham Bell*:** In high school, the Scottish-born inventor of the telephone had a love-hate relationship with math. According to biographer Robert V. Bruce, Bell "enjoyed the intellectual exercise" of this subject, but was "bored and hence careless in working out the final answer once he learned the method." His grades suffered accordingly. Bell's mathematical aptitude never improved and, for a scientist, it would remain sub-par until the day he died.

***Thomas Edison*:** "I can always hire a mathematician," Edison once remarked, "[but] they can't hire me." Like all successful entrepreneurs, he was keenly aware of his strengths and weaknesses. As a boy, Edison trudged through Isaac Newton's *Philosophiae Naturalis Principia Mathematica* ("Mathematical Principles of Natural Philosophy"). In his own words, the book left him with nothing but "a distaste for mathematics from which I never recovered."

Higher math was a topic about which Edison knew almost nothing. So, after co-founding the General Electric Company, he brought German mathematician Charles Proteus Steinmetz into the fold. A numerical genius, Steinmetz oversaw many of G.E.'s technical underpinnings. Previously, Edison had recruited yet another mathematician—Bay Stater Francis Upton—to make calculations that could help him carry out various lab experiments. Together, they worked on such gadgets as the incandescent lamp and the watt-hour meter before parting ways in 1911.

***Jack Horner*:** Horner cameoed in the third highest-grossing movie of all time. Over the past quarter century, he's served as a scientific consultant for all four *Jurassic Park* films and was

just rewarded with a brief on-screen appearance during one of *Jurassic World*'s raptor scenes. Back in the 1970's, Horner found the western hemisphere's first-known dinosaur eggs. A legendary paleontologist, he's forever changed our understanding of how these incredible animals grew up and raised their young.

Horner's success must have shocked his childhood teachers. The Montana native did poorly in school, which he found "extremely difficult because my progress in reading, writing, and mathematics was excruciatingly slow." Teenage Horner flunked high school algebra, much to his math-savvy father's disappointment. Horner would go on to flunk college seven times, and in fact, never graduated with a formal degree—which means any jobs in the field he was most passionate about weren't available to him. (Horner, who worked a series of odd jobs as a young man, eventually began writing "to every museum in the English-speaking world asking if they had any jobs open for anyone ranging from a technician to a director." Clearly, it paid off.)

His educational woes remained a mystery until 1979, when Horner was diagnosed with dyslexia. "To this day, I struggle with the side-effects," he says. "Self-paced learning is a strategy that helps me cope. Audio books are also a very helpful technology."

***E.O. Wilson*:** Apart from being the world's top authority on ants, Wilson's a first-rate science popularizer. He's written dozens of bestsellers about everything from evolution and biology to philosophy and conservation. One of his offerings—2013's Letters to a Young Scientist—reveals a tumultuous personal history with math.

The product of "relatively poor Southern schools," Wilson admits that he "didn't take algebra until my freshman year at the University of Alabama … I finally got around to calculus as a 32-year-old tenured professor at Harvard, where I sat uncomfortably in classes with undergraduate students only a bit more than half my age. A couple of them were students in a course on evolutionary biology I was teaching. I swallowed my pride and learned calculus." While playing catch-up, he was "never more than a C student."

For numerophobic science majors, he offers this tip: “The longer you wait to become at least semiliterate in math, the harder the language of mathematics will be to master … But it can be done, and at any age.”

Scott Douglas Redmond, the inventor of internet media distribution, energy storage technologies and numerous social media patents created his own form of visual math and calculus physics calculators to excel, at an advantage, in his product designs. He teaches his visual math system to learning groups.

Douglas Engelbart was the human-computer interaction designer who invented the mouse.

Photo: Doug Engelbart Institute

Doug Engelbart is most celebrated for his role in inventing the mouse at the Stanford Research Institute. At a time when many people are turning to track pads and touch screens, the mouse remains perhaps the most commonly used peripheral of the past three decades.

But the mouse was a minor piece of Engelbart’s larger project, the oN-Line System. The unveiling of the NLS at the 1968 Fall Joint Computer Conference in San Francisco has been called “the mother of all demos” by some, because it packed video conferencing, networked collaboration, the mouse, hyperlinks and text editing into one presentation. These are now core technologies that make up what we think of as modern computing.

While the mouse proved to be a big hit with most, there was one man who questioned Engelbart’s design — specifically, how many buttons the mouse should have.

“We tried as many as five. We settled on three. That's all we could fit. Now the three-button mouse has become standard, except for the Mac. Steve Jobs insisted on only one button. We haven't spoken much since then,” Engelbart told Wired magazine in 2008. Engelbart had his own way of learning and describing complex math systems.

Engelbart’s mouse was too ahead of its time for him to profit from his idea. His patent expired in 1987, and he never received any royalties from it, according to the BBC.

After his famous demo in 1968, Engelbart remained at the Stanford Research Institute till 1977, when NLS and the Augmentation Research Center (ARC) were sold to a company that was

ultimately acquired by McDonnell Douglas. He retired from McDonnell Douglas in 1989 and formed the nonprofit Bootstrap Institute, now known as the Douglas Engelbart Institute, an organization dedicated to promoting a collective approach to problem-solving.

Ray Kurzweil was the principal inventor of the first charge-coupled device flatbed scanner,[2] the first omni-font optical character recognition,[2] the first print-to-speech reading machine for the blind,[3] the first commercial text-to-speech synthesizer,[4] the Kurzweil K250 music synthesizer capable of simulating the sound of the grand piano and other orchestral instruments, and the first commercially marketed large-vocabulary speech recognition.[5]

Kurzweil received the 1999 National Medal of Technology and Innovation, the United States' highest honor in technology, from President Clinton in a White House ceremony. He was the recipient of the $500,000 Lemelson-MIT Prize for 2001,[6]the world's largest for innovation. And in 2002 he was inducted into the National Inventors Hall of Fame, established by the U.S. Patent Office. He has received twenty-one honorary doctorates, and honors from three U.S. presidents. Kurzweil has been described as a "restless genius"[7] by *The Wall Street Journal* and his dyslexia software is highly regarded.

Their novel methods of design, development and deployment are delivering some of the most extraordinary internet and media dep