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Daniel Burrus'

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The biggest ideas that are changing everything

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Is Success A Big Limitation?

By Daniel Burrus, CEO of Burrus Research

I was giving a commencement speech a number of years ago at a university where several students were getting their degrees of varying levels, and I could tell my first comment took the parents as well as many of the graduates completely by surprise. I said, "I don't want you to try to live a successful life. A focus on success will limit you because it's a scarcity mindset."

I continued with, "Success is all about you, your degrees, your accomplishments, the number of accolades on your wall, the size of your house, the look of your car, and the brand name on the clothes you wear. It's a one-dimensional view that limits you rather than expands you and what you can achieve.

Success is most often associated with material wealth; it means money, and a lot of it. And as I travel the world, I've noticed that for many successful people, there is never enough of it, no matter how much one has."

> *Significance is not about you, it's about all that you do for everyone else.*

I finished with something to uplift them. "Instead of focusing on living a successful life, I would like you to consider living a significant life. Significance is not about you, it's about all that you do for everyone else. It's a multidimensional way to see your life and a vastly expanded view of what you can achieve, because you have an abundance mentality. If you elevate significance, what's interesting is you will find yourself to be quite successful in a much more meaningful and impactful way."

From Success To Significance

In order to find out where you and the organization you work for are in pursuit of success or significance, we must first understand the difference between success and significance from a leadership and organizational level.

From an organizational standpoint, success is all about the organization. It tends to be based more on surface value accomplishments, such as how much money was made last year, how much money leaders get paid, and the material wealth that is displayed in the buildings. All of these things are important for brand building, but the key question to ask regarding significance is what is the bigger goal? If it is primarily about the success of the organization, you will be limited.

Conversely, a significant organization keeps broadening its reach and impact, focusing on increasing the difference it can make in new and amazing ways on a larger scale each year. As I said in my commencement speech, a focus on increasing your significance always increases your success, but in a much more impactful way!

I was with a CEO recently who is very sharp, accelerating the annual growth of his company by over 20% for many years. He was telling

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TECHNOLOGY NEWS HIGHLIGHTS

Psychedelic Bacteria

A group of undergraduate researchers recently discovered a novel process for producing a promising drug used to treat depression, addiction and post-traumatic stress disorder. A chemically synthesized version of the drug, known as psilocybin, is already undergoing clinical trials. But the new method would make it possible to produce it more cost-effectively and on a larger scale.

Psilocybin is the active ingredient found in "magic mushrooms" and, in some cases, has been shown to be therapeutically effective with a single dose. However, synthetic chemical production is extremely expensive.

Deriving the drug from cultivated mushrooms is also prohibitive in terms of real estate and time. Through metabolic engineering, the team was able to successfully replicate it using a strain of E. coli that was engineered for safe use in laboratory settings.

DNA from the Psilocybe cubensis mushroom was transferred into the bacteria where it was able to reproduce relatively quickly in a process similar to fermentation. Over the course of the study, the method was optimized to improve yield of the drug from a few milligrams per liter to more than one gram per liter, demonstrating the feasibility of large scale production from a sustainable biological source.

For information: J. Andrew Jones, Ph.D., Miami University, Department of Chemistry, Paper and Biomedical Engineering, 64 Engineering Building, 650 E. High Street, Oxford, OH 45056; phone: 513-529-0760; email: jonesj28@MiamiOH.edu; website: https://www.miamioh.edu/index.html or https://miamioh.edu/news/top-stories/2019/09/psilocybin.html

Doubling Down on AI

One of the biggest challenges that face autonomous vehicle manufacturers is the risk of hackers tampering with the artificial intelligence (AI) algorithms designed to recognize road signs and other information that these systems collect from their surroundings. But a different type of threat that alters the data coming into the system can be equally dangerous.

For example, in spite of standardization efforts, it may be possible to alter the content of a traffic sign with a few strategically placed pieces of tape. Even in human-operated vehicles, where onboard systems are relied upon to present information or control certain driving functions, such tampering could present a hazard. To remedy this type of low-tech hacking, a second layer of AI processing has been developed that is based on computer vision. It analyzes objects from a second perspective and compares the two. If a discrepancy exists, it can signal that someone has attempted to hack the system.

This is just one example of how important it is to ensure that, when it comes to machine learning and AI systems, the data as well as the algorithms are protected against manipulation.

For information: Robert Bosch GmbH, Robert-Bosch-Platz 1, 70839 Gerlingen-Schillerhöhe, Germany; website: https://www.bosch-mobility-solutions.com/en/highlights/automated-mobility/

Living Concrete

A new type of concrete that is grown from bacteria could be the next step toward self-replicating building materials. Unlike previous research into self-healing bricks, which centered on adding bacteria to traditional concrete, the new material actually uses the bacteria to generate the minerals that give the concrete its strength. In addition, the bacteria can be kept alive to continue the process later on.

Cyanobacteria were placed in a mixture of warm water, sand and nutrients, and placed in a mold. When exposed to light, the bacteria produced calcium carbonate, which cemented the sand particles together. To speed up the process, gelatin was added, which provided additional structure and enhanced the bacterial activity. It took about one day to form bright green blocks about the size of a shoebox.

At room temperature and humidity, the bacteria eventually died out, but when exposed again to higher temperatures and moisture, they can regenerate even after a few weeks. When cut in half and placed back in a mold with more sand, water and nutrients, they will form a new block. The process can be repeated up to three times to yield eight blocks from a single original.

The new concrete is ideally suited for use

in areas where trucking in large amounts of building materials is impractical. And because it's not dependent on virgin sand (which is the case with most concrete), it provides a way to put waste materials like ground glass or even recycled concrete to use.

For information: Wil Srubar, University of Colorado, Civil, Environmental and Architectural Engineering, 1111 Engineering Drive Boulder, CO 80309; phone: 303-492-2621; email: wsrubar@colorado.edu; website: https://www.colorado.edu/ or https://spot.colorado.edu/~wisr7047/

Smart Contact Lenses

Imagine a contact lens that could project the time, weather, your heart rate, text messages and other information right into your eye. Now imagine that same contact lens could sense objects, access data like a smart watch AND allow you to see in the dark. That's the kind of capability being built into a new augmented reality (AR) contact lens geared toward becoming an FDA-approved assistive device for people with visual impairments such as macular degeneration.

At the heart of it all is a monochrome micro-LED that looks like a small green dot to the naked eye. But when placed on the eye, it will project readable text directly onto the cornea. Power is currently supplied wirelessly, but the future plan is to include a tiny battery and a 5GHz radio transmitter on the lens as well. Other features will include the ability to magnify and/or translate text, highlight objects and adjust contrast. Eventually they will also be available as prescription lenses.

The device, known as Mojo Lens, is still years away from being released to consumers. The first in-eye demos are not expected until later this year. But the company has received a Breakthrough Device designation from the Food and Drug Administration as an assistive technology for debilitating conditions, which will help fast-track the approval process.

For information: Mojo Vision Inc., Saratoga, CA; website: https://www.mojo.vision/

Disease-Fighting Mosquitoes

Scientists recently discovered a way to halt the spread of the mosquito-borne dengue virus, a disease that affects more than 390 million people each year and accounts for more than $40 million in economic losses globally.

Dengue is spread when a mosquito bites an infected organism and subsequently bites a human, transmitting the virus through the blood. But when female disease-carrying mosquitoes (Aedes aegypti) were

genetically modified with an antibody, the mosquitoes were unable to replicate the virus, effectively shutting down their ability to disseminate the disease.

In laboratory testing, the approach was shown to work on all four varieties of dengue fever. The team is already working on similar methods to combat other viruses, including Zika, yellow fever and chikungunya.

For information: CSIRO, GPO Box 1700, Canberra, ACT 2601, Australia; phone: +61-3-9545-2176; website: https://www.csiro.au/ or https://www.csiro.au/en/Research/BF/Areas/Protecting-Animal-and-Human-Health/InsectBorneDisease/Dengue-resistant-mosquitoes

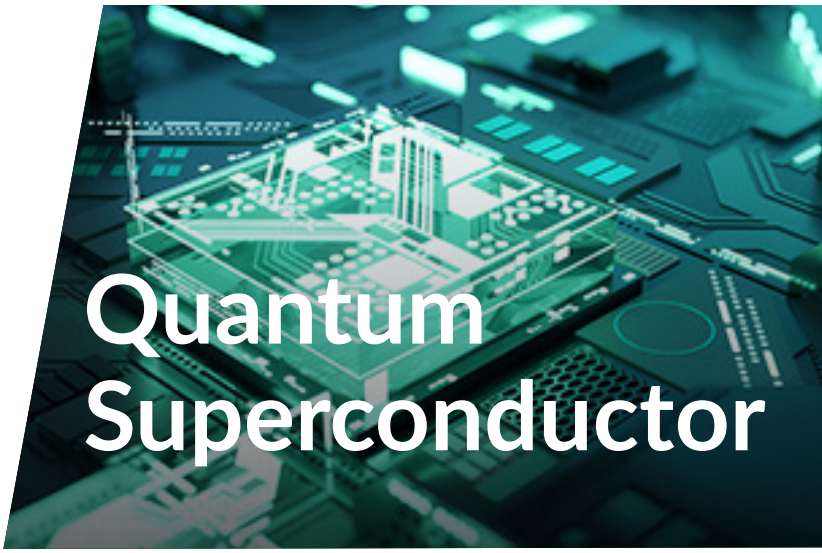
Vital Signs via Video Chat

Artificial intelligence (AI) algorithms are now capable of detecting a variety of physiological parameters through video; a breakthrough that could push telemedicine to the next level.

Although details are sketchy due to pending patents, the new technology appears to make use of a measurement technology known as plethysmography to detect subtle changes in skin color that vary in relation to heart rate, respiration and blood oxygen levels. When combined with "affective computing" — another emerging field that utilizes AI to gauge a person's emotional state for the purpose of helping computers respond in emotionally intelligent ways — the system is also able to quantify stress levels.

The technology is currently under review by the Food and Drug Administration while several healthcare institutions carry out testing of the algorithms. The company also plans to release an app that would give consumers the ability to test their own vital signs and stress. Other future applications could include use by law enforcement to replace or augment polygraph data. In the meantime, legal standards governing biological data collected outside HIPAA-governed facilities will need to be reviewed to protect individual privacy rights.

For information: Binah.ai Ltd.; website: https://www.binah.ai/



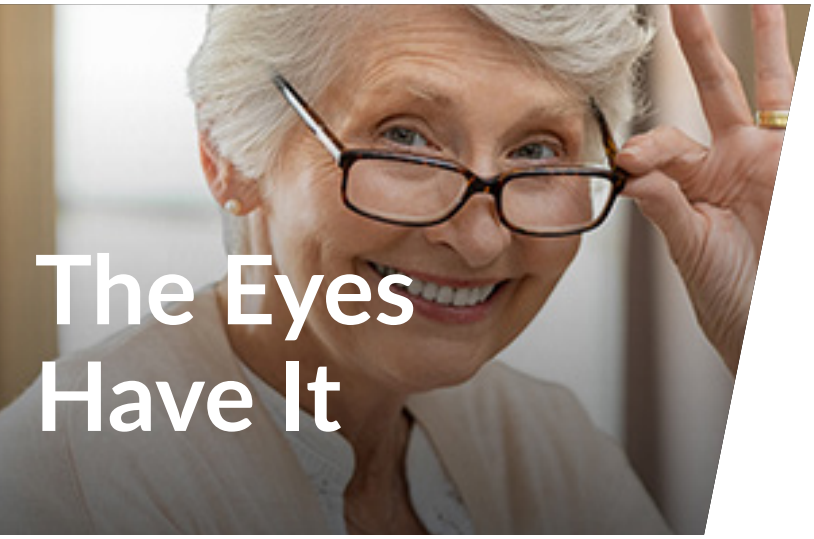
Quantum Superconductor

Physicists recently discovered a new superconductor with unique properties that may make it ideally suited for use in quantum computers. Composed of a thin film of crystalline bismuth and palladium, the material is not only able to move electrons with zero resistance, but when shaped into a ring, it can simultaneously carry current in both clockwise and counterclockwise directions.

As we've mentioned in the past, traditional computer bits exist as either 0 or 1, while quantum bits (qubits) exist as both. So, the ability to circulate current in both directions may allow the newly discovered material to function as a qubit. In addition, qubits to date have required precise magnetic fields and can only be maintained for a miniscule fraction of a second. The superconducting flux qubit (as it's been dubbed) requires no magnetic field, which would simplify the design and calibration significantly.

Although quantum computers are still years away, this advancement represents yet another step forward in making quantum computing a reality.

For information: Yufan Li, Johns Hopkins University, Department of Physics and Astronomy, Bloomberg Center for Physics and Astronomy, 3400 N. Charles Street, Baltimore, MD 21218; phone: 410-516-7347; fax: 410-516-7239; email: yli@jhu.edu; website: https://www.jhu.edu/ or https://physics-astronomy.jhu.edu/



The Eyes Have It

A new artificial intelligence (AI) system is designed to analyze images of the retina for early signs of degenerative disease — from dementia to heart disease to stroke. While diagnostic medicine has traditionally focused on distinct organs, diseases or physiological systems, this approach looks toward a more cohesive model of overall health. The ultimate goal is to reduce the need for expensive equipment and multiple tests that make preventative screening cost prohibitive.

In a project known as AIzEye, data from approximately 300,000 patients (age 40 and older) was gathered from hospitals throughout the U.K. over a period from 2008 through 2018. The data includes retinal scans as well as other health-related information, but excludes names and other readily identifiable personal information. In November of last year, the data sets were finally linked and the correlation process is now underway.

The researchers believe that the sheer number of data points will be the study's greatest asset. Known as the Moorfields data set, the new database contains 12,000 major cardiac event cases and data on 11,900 stroke patients, compared with another widely used database that contains only 631 and 1,500 cases, respectively. Although there is no guarantee that correlations between retinal scans and Alzheimer's disease will be revealed, the system will be able to check for other patterns as well. And if retinal scans prove to be a reliable window to other general health metrics, they could prove to be an inexpensive alternative to more expensive testing for early detection of chronic diseases.

For information: Pearse Keane, Moorfields Private Eye Hospital, 9-11 Bath Street, London EC1V 9LF, United Kingdom; phone: +44-20-7566-2803; website: https://www.moorfields-private.co.uk/

Is Success A Big Limitation?

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me about all of their financial successes, and he mentioned that it was difficult to maintain that level of growth, but he thought they could. He then asked me if I had any ideas on how he could not only maintain this great growth number but exceed it.

I responded by saying that he was good at growing a successful company, but to go to the next level, he would have to shift his focus from organizational success to global significance.

He understood it immediately, saying, "That was the missing element; my focus on success was actually holding us back in a way I didn't realize. Tomorrow, I'm turning the company's focus from success to significance."

Selfish or Selfless

One prevailing difference often overlooked between success and significance is best itemized by uncovering whether you are acting in a selfless or selfish way. When you have a success mindset, you tend to be focused on what will benefit only you, often under the guise that once you either make a certain amount of money or have saved a certain amount of personal wealth, you can afford to help others or improve the world.

The problem with that assumption many of us make is that we never really know how to gauge when we've finally earned "enough money" or, for some others, "enough power" in conjunction with it. It's just like the label of being "wealthy." When do you consider yourself wealthy? Is it a million dollars? How about two million dollars? Some individuals may say it's simply earning six figures a year, including benefits. Others may say wealth is making money while you sleep, while others may simply say it's good health, great friends, and the freedom to choose.

When you set out on a business venture that is based on elevating the significance and impact you will have on as many people in the world as possible, you shift your focus from your own personal wants and desires to building something that people around the world need.

The Road To Significance

When someone aims for success alone, it breeds limitations. However, limitations are all in our heads, and once we break those limitations, we break free and are more likely to find a pathway to significance. In my travels, I had a chance to get to know a rather inspiring individual who fully embodies a physical shift from success to significance. His name is Sam Schmidt, and he is a former Indy race car driver.

Before becoming a race car driver, Sam Schmidt was first a successful businessman, eventually purchasing his father's parts company in 1989 at the age of 25. He started racing at the amateur level, which was supported by his business income, but decided that he would work toward racing professionally in the Indianapolis 500. He would make his professional race debut in 1995 in the USAR Hooters Pro Cup Series.

He had reached success in business, and now racing, as a winning race car driver. During the off-season, Sam was testing in preparation for the 2000 season when he crashed at Walt Disney World Speedway on January 6, 2000. The accident was so severe, it rendered him a quadriplegic, and he needed a respirator for five months. Sam himself as well as others could assume that his racing days were over. His future view had changed for the worst, and his success would end that day at the track.

Skipping Your Biggest Problem

However, he was far from done; his tragedy was merely a starting point in a personal transition from a life of success to one of significance. Being a quadriplegic, you are paralyzed from the neck down, leaving almost no ability to traditionally operate a vehicle, let alone a race car. One would consider that to be an impossible obstacle to overcome, but Sam did not. His first use of my principle of Taking Your Biggest Problem and Skipping It was to implement it in overcoming his most severe and debilitating obstacle, driving a race car.

To drive a race car as a quadriplegic, most would believe that Sam might benefit from some form of new technology, such as autonomous features found in many self-driving cars today. However, that's not what was at play here. Instead, he commissioned a tech team to help him race again, with Sam in full control of the car. Additionally, he didn't want to race in just any old race, he wanted an exponential challenge. That challenge was the Broadmoor Pikes Peak International Hill Climb competition, which has many turns, as it is a climb up a mountain! To do this, Sam would have to use only his helmet to steer, accelerate, and brake the car.

To solve the technical problems, the team used another principle I teach: Opposites Work Better. Instead of autonomous, high-tech expensive equipment, they used off-the-shelf technology to allow Sam to control his 2016 Corvette Z06.

Simultaneously, sensors mounted on an Arrow-designed high-tech headset that he wore were connected to infrared cameras mounted on the dashboard, detecting his head-tilt motions to steer, and a sip-and-puff device that Sam breathed into enabled him to accelerate and brake.

Helping Others

When I met Sam Schmidt, he had gone even farther in taking his success to significance by founding the nonprofit organization Conquer Paralysis Now, which is working to find a cure for paralysis and spinal cord injuries. But in addition to this, I see something he has done even more significant to the betterment of humankind.

By taking old technology and using it in new ways, and getting himself behind the wheel of a race car yet again, he has set in motion the possibility of forever changing other quadriplegics' prognosis of whether they will ever drive again. Since Sam's race, a number of other race car drivers who have lost legs and far worse, and who thought they would never race again, are now racing, thanks to Sam.

Knowing what Sam did, I think it's possible to adapt this technology to help get disabled veterans behind the wheel again. There is a growing shortage of truck drivers, and our disabled vets could certainly fill that role and earn a good living again.

Before the accident, Sam focused on living a successful life as a race car driver, but after the accident, he started living a significant life, inspiring and helping others around the world and creating a new level of success for himself.

Thankfully, you don't have to have a tragic accident like Sam did to shift your focus from living a successful life that is focused on you to living a life of significance that's focused on elevating others. Also, as a great side benefit, you'll find ever-expanding levels of success while elevating your significance, and the world will be far better thanks to you.

To find out more about my friend Sam, watch this YouTube video and enjoy his road to significance.

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