

Newsbytes

The First Watch

October 10, 2018

No. 893

Since 2001

Newzbytes is a ministry of Calvary Chapel of Appleton

www.ccapleton.org

“Let us be alert to the season in which we are living. It is the season of the Blessed Hope, calling for us to cut our ties with the world and build ourselves on this One who will soon appear. He is our hope—a Blessed Hope enabling us to rise above our times and fix our gaze upon Him.” Tozer

Tech Issue! There is so much going on in the tech sector it's really worth keeping up with it because of the world described in Revelation 13. Some of it is truly mindblowing and will affect us all at some point. – MD

The Most Important Revolution Of Our Lifetime?

October 09, 2018, 01:00:00 AM EDT By Dr. Thomas Carr, StreetAuthority



nasdaq.com

Shutterstock photo

In the language of economics, there are two terms used to describe events that bring great changes to the economy. "Megatrend" is a term used to describe major structural changes that transform the global economy over the long-term. And "revolution," as in "the industrial revolution," is a megatrend so massive, so pervasive, and so long-lasting, it changes the very fabric of culture and society.

Artificial intelligence (AI) clearly represents a "megatrend;" but I believe it is much more than that. I believe economic historians will be writing up the 2020's as a decade that witnessed a new industrial revolution, and quite possibly the most impactful such revolution we've ever seen.

In the first industrial revolution, the birth of steam locomotion revolutionized transportation. Since then, we've seen how the assembly line enabled modern rates of production, how digital electronics radically changed the ways we communicate and entertain ourselves, and how the internet revolutionized... well... pretty much everything. Now, it seems we are on the verge of a fifth great breakthrough in industry.

Within just a generation of the internet's invention, we appear to be standing at the beginning of the very beginning of what may in fact be the greatest revolution of all. The one that will propel modern society into fulfilling what until now has only been possible in the vague imaginings of science fiction writers. The rise of AI is best defined now as a megatrend, for it impacts any tech industry that deals with large amounts of data. But it will soon be changing core aspects of our daily lives, too.

The Power Of Growth

Artificial intelligence is already bringing changes to several key sectors of the economy. In health care, it will change the way our health is diagnosed, and our health care distributed. For example, tech giant International Business Machines (NYSE: IBM) recently purchased four health companies that work in

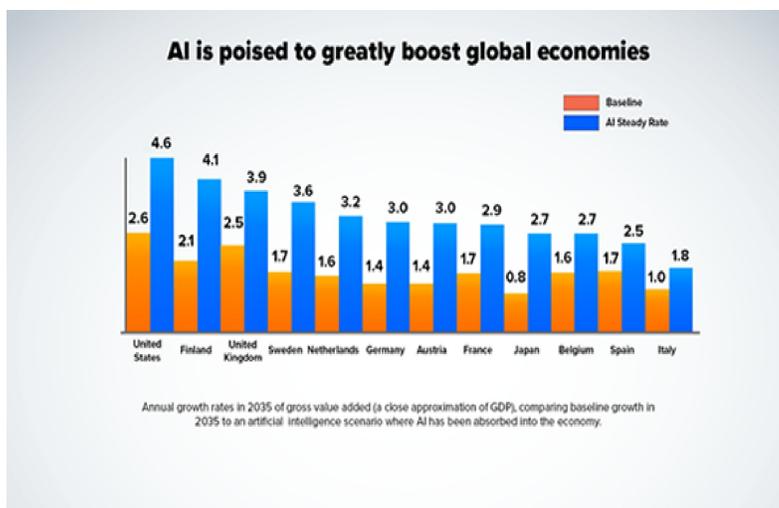
diabetes care . Together, these companies give IBM access to over 300 million clinical records that it will analyze, using AI and machine learning, to not only improve diabetes care but to potentially find a cure.

AI will also change the way we drive our cars. While fully driverless cars are not yet on the market, they do exist and are getting "smarter" all the time. The front-runner, Google's Waymo, has a fleet of autonomous cars that have driven 3 million miles on public roads, 1 million miles of which were achieved in just 7 months . Driverless cars are no longer a pipe dream.

We will also see major changes in things like how we buy life insurance, the way home loans are approved, how we get financial advice, and how, when, and where we go to war. It is hard to estimate how much AI will add to the global economy, since it is not only a new industry in its own right, but it also helps existing companies improve the performance of current services.

One recent estimate suggests that, once AI is fully absorbed into the U.S. economy, we could see "gross value added" figures (which approximate GDP) increase from a baseline of 2.6% today to 4.6% by the year 2035, a growth of 77%. In terms of today's dollars, that is an increase to the U.S. economy of over \$15

trillion, more than the total annual output of India and China combined! And that's just here at home. The global growth picture is many times that. In the figure below, we see estimates of value creation for various world economies from AI being adopted into the economy.



Source: Accenture and Frontier Economics

It has been estimated that AI industry revenues will grow to \$127 billion by 2025, from \$2.1 billion in 2015, implying a compound annual growth rate (CAGR) of 51%. Such estimates are naturally subject to a huge degree of inherent uncertainty, but the tone of analyst expectations is optimistic.

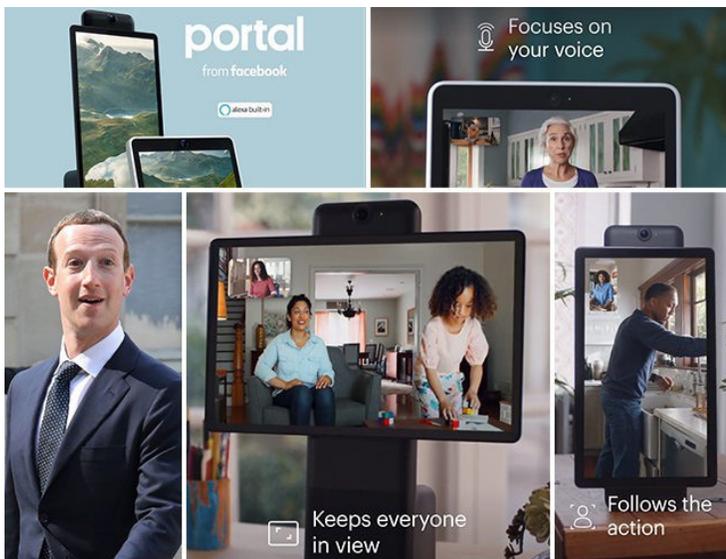
And so am I. I'm bullish on AI and it is one of the key reasons I decided to launch Extreme Tech Profits . I'm not alone. Assets under management for AI and AI-related exchange-traded funds are now estimated to be over \$25 billion, a massive increase from a mere \$59.8 million in a handful of funds just five years ago. But as I said, we are at the very beginning of the beginning of this major change-wave in our world's economy.

Facebook Unveils Smart Device to Compete with Amazon and Google in Watching Your Every Move

8 Oct 2018

Facebook has announced a new smart speaker and camera product in an attempt to compete with Amazon's Alexa device and Google Home in observing its owner's every move.

CNBC reports that shortly after Facebook's latest user data leak, the company wants consumers to install a Facebook-manufactured camera into their homes. The new Facebook product comes in two versions, the Portal and the Portal+ and focuses mainly on Messenger video chats. The device functions as a smart



speaker similar to Amazon and Google’s own smart home devices, but the Portal includes a camera amongst its features. This marks Facebook’s first physical product aside from the Oculus virtual reality headset which Facebook acquired in 2014.

facebook-portal-device
ludovic Marin/AFP/Getty, Facebook

The device is controlled via voice commands, users can start a video call with a Facebook friend by saying “Hey Portal, call ...” followed by the name of the Facebook contact they wish to talk to. The Portal’s smart camera detects a users face and frames them within the shot throughout the video call. Dave Kaufman, the marketing lead for

Facebook’s Portal division, commented on the device stating: “Portal+ and Portal really live up to that idea of helping you feel closer and allowing you to spend more quality time with people, even if they live thousands of miles away from you.”

The device can also stream music from Spotify, Pandora and Amazon Music and video from Facebook Watch. Interestingly, Facebook has included Amazon Alexa software in their device, allowing users to ask questions such as “What’s the weather?” or “How are my teams doing?” The inclusion of Amazon’s software is an odd choice given that this appears to be a direct competitor to the Amazon Alexa line of devices.

Jonathan Collins, director at tech advisory firm ABI Research, stated: “The inclusion of Alexa is certainly an interesting move. It enables the Facebook devices to piggy-back on the back of Alexa success.”

Facebook is currently accepting pre-orders for the new devices and will be shipping them next month. The Portal, which features a smaller 10-inch screen, costs \$199 while the Portal+, which has a larger 15.6-inch screen, costs \$349.

Your Life is an Algorithm, Your Brain is an Operating System

DOMINIC BASULTO



Ever wondered how you were supposed to keep up with the never-ending stream of content and data in your life? Not to worry, the elves of the Internet are busy at work, creating everything from magical little algorithms that automatically execute basic tasks to sophisticated utility apps that run in the background, taking care of all the minutiae in your daily life. Forget about hiring a personal assistant, you can “hire” off-the-shelf algorithms and digital apps that do all the heavy lifting for you. If that doesn't work, just ask Siri. Your life is an algorithm, your brain is an operating system,

now go get some sleep.

One of these digital algorithms that is attracting the most buzz is ifttt, which is shorthand for “if this, then that.” If this sounds like a bit of algorithmic computer programming jargon, then that’s because it is. IFTTT actually refers to these algorithms as “recipes,” and encourages users to create and post their own recipes. In the same way that you swap food recipes with your next-door neighbor, you can now swap computer algorithms with the guy or gal in the cubicle next to you. Eventually, these lightweight algorithms will become increasingly powerful. They are becoming "a second brain for saving, sharing, and organizing information" in your life.

We are entering a new era where the algorithm rules. Algorithms are what determines what search results you see with Google or what shared items pop up in your Facebook feed. Algorithms are what make artificial intelligence possible. Once you are able to reduce elements of your physical, real-world life into a series of 1’s and 0’s, you can take advantage of a new tools that promise to go beyond just curating elements of your life – they actually include the instructions for completing simple, everyday tasks, like uploading photos to Facebook, transferring Google Reader articles to other places on the Web, or downloading Instagram photos to Dropbox. Individually, each of these actions might take several minutes from your busy digital life. Now, they can happen instantaneously.

Taking a bigger picture view, the Web is moving away from just curating content, to actually performing artificial intelligence operations on that content. Legendary venture capitalist Vinod Khosla recently referred to these utility apps as one of the last great unhyped areas of the Internet. In short, we are experiencing a move away from curatorial tools to algorithmic tools. We are, indeed, creating a type of second brain made possible by basic programming skills. A whole group of sites – Screenr, Google Reader, Diigo, delicious, Instapaper, Evernote, Pinterest, and Social Cast – are becoming part of a massive second brain that is able to establish relationships between all the content that we are creating online with different Web services.

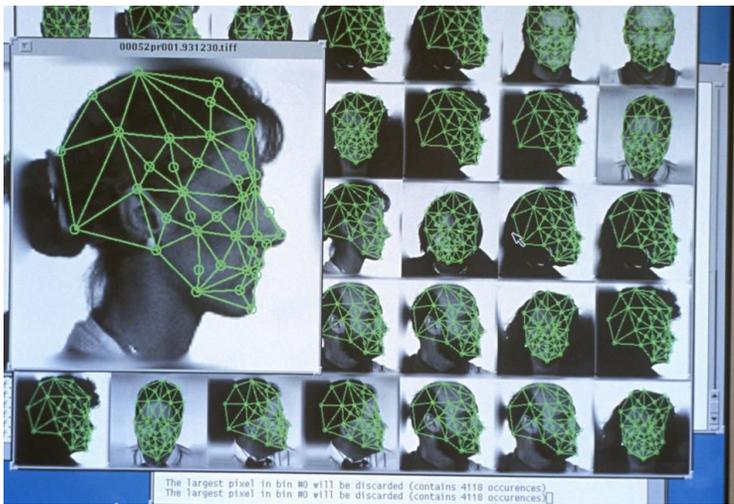
In the process, the human brain is becoming an operating system rather than a computational engine. Think about that for a second - just as a company like Apple relentlessly rushes out new versions of its Mac OS X operating system to take advantage of new computing capabilities, humans are also updating their version of their internal operating systems. Take, for example, the way that the current generation views the Web as a sort of shared external memory:

"We do not have to remember unnecessary details: dates, sums, formulas, clauses, street names, detailed definitions. It is enough for us to have an abstract, the essence that is needed to process the information and relate it to others. Should we need the details, we can look them up within seconds. Similarly, we do not have to be experts in everything, because we know where to find people who specialise in what we ourselves do not know, and whom we can trust."

There has been constant talk of the blurring of our online and offline lives. With the current generation of tools, algorithms and utilities, we may have reached a new inflection point in the human race for artificial intelligence. We used to talk in terms of “the left hand not knowing what the right hand is doing.” Soon, we may need another metaphor: “the second brain not knowing what the first brain is doing.”

Facial Recognition Software: The Future Is Here

forbes.com



A year ago, when Apple rolled out the iPhone X, one of their most touted features was facial ID. You no longer needed to press a home button or use a passcode. You could unlock your phone with your face. It was the first time I'd really seen facial recognition software being practically used. You probably use something every day with facial recognition software even if you don't realize it—I'm looking at you Snapchat and Instagram face filters.

Getty Royalty Free

Facial recognition is actually becoming a usable reality and not in the scary way we've seen in sci-fi movies. It's now in several consumer tech devices. Almost every major phone company has a phone with some form of facial recognition built in. Companies are even pitching it for ideas from policing to retail.

So how long will it be until we see it everywhere? As more companies realize how convenient the tech is we'll likely see it more often. Let's discuss the current opportunities companies are seeing and what roadblocks we must overcome to get us to the ubiquity of facial recognition software.

Real-Life Opportunities Making Headlines

Facial recognition is doing some amazing things when it comes to security. From airports to retail establishments, this tech is taking the customer and employee experience to new heights.

Recently, at the Washington Dulles Airport, facial recognition technology caught an imposter trying to enter the United States on a fake passport. The passport may have passed at face value with humans and without the technology present according to federal officials investigating the case. The biometric technology was just three days old when the individual was caught, cementing its usefulness.

YOU MAY ALSO LIKE

This use is just one of the many new uses for facial recognition software. In fact, the others uses might surprise you.

Preventing crime in retail: Facial recognition software is being used to instantly identify known shoplifters after they enter a retail store. Photographs can be matched against databases of criminals to alert loss prevention and security professionals. This tech is already reducing crime in these locations drastically.

Mobile phone security: As I mentioned above, mobile devices like iPhone X, Google's Pixel 2, and Samsung's Galaxy Note 9 all come with facial recognition installed as the unlock feature. You don't have to worry about someone stealing your passcode to get into your phone.

Advertising: As if your marketing team didn't have enough updates to make, facial recognition could be next. Companies are installing screens at gas stations that have this technology built-in. This helps to

target and personalize the customer experience by guessing age and gender for tailored ads.

Helping the missing: Facial recognition is the perfect tool for finding missing children. Added to a database, individuals can be recognized and then local enforcement can be notified immediately. Companies such as are using facial recognition to help the blind look for social cues such as smiling.

Helping the impaired: In what will probably go down as the one of the best—and most emotional—ways to use facial recognition, Listerine created an app a few years ago that helped blind people know when they were being smiled at. When the app detected a smile it would vibrate letting the user know. Smiles are probably something you take for granted—I know I do!

Social media: When was the last time you uploaded a group photo to Facebook? Did the social giant correctly guess who your friends were in the picture? You can thank facial recognition software for that. There are many other uses that could be added to this list. For facial recognition, the opportunities are endless. But to get us to a point where it's a part of our daily lives, we still have a few roadblocks to overcome.

Facial Recognition Software Roadblocks: What's Holding Us Back?

Unfortunately, some facial recognition software programs haven't had smooth sailing after debuting. A few programs, including Amazon's Rekognition face-identifying software have been the perpetrator of racial biases.

In July, a facial recognition software sold by Amazon mistakenly identified 28 members of Congress as people who had been arrested for crimes. The test misidentified people of color at a high rate, 39 percent. Unfortunately, because of this error rate, facial recognition has a little ways to go before it is readily usable for all.

And to make matters worse, no real answer has been created to solve this issue. In order for the tool to be used effectively by law enforcement and other entities, the bias has to be eliminated.

Facial recognition also walks the fine line of convenient and creepy. Some companies are pitching it as a retail solution, where, with the addition of barcode scanners, you're tracked around a store and you pay with your face. It sounds convenient, like something that would be used in the Amazon Go store in Seattle (it is not currently), but it could become an issue if the facial data is sold to outside companies. Companies that use this technology would have to develop an ironclad privacy agreement and be fully transparent with customers in order to secure their trust.

The Future...Is Near?

Facial recognition is coming and it may not be far off. With its many uses and potential opportunity, there's a lot of growth coming. It's easy to see how convenient this technology will make our lives, but before we can embrace it fully companies will have to overcome the obstacles in the way.