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## What is Blockchain?

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In 1943, Thomas Watson, President of IBM, said “I think there is a world market for maybe five computers.” In 1977, Ken Olsen, founder of Digital Equipment Corporation, said “There is no reason anyone would want a computer in their home.” At the end of this article we have provided a link to a video\* of NBC Anchors discussing the internet in the 1990s. In the early days of technology, people could not see the need for computers, let alone how ubiquitous they would become. We are on the cusp of a technological advancement that may be greater and more lifechanging than the internet has been in the last 25+ years. In ten years, we will likely look back on this article and say, “We had no idea how blockchain would impact society.” With that in mind, we will try to answer the question, “What is Blockchain?”

Investopedia defines blockchain as “digital information (the “block”) stored in a public database (the “chain”).” Blockchain creates a permanent public ledger that sequentially records transactions in an encrypted block of characters. Blockchain was originally created to transfer cryptocurrencies, such as bitcoin. Whether or not cryptocurrencies are here to stay is uncertain, but the underlying technology for maintaining the digital record of the currency, the blockchain, will impact all of us.

Some of the benefits to the Public Blockchain is that it is believed to be un-hackable, unchangeable, transparent, and able to eliminate intermediaries. Some of the limitations currently include:

- 1) The amount of computing power required to record the transaction on the public ledger
- 2) The lack of regulations and guidance (such as the SEC, FINRA, FDIC, IRS)
- 3) The administrative burden of accumulating the information from the digital record

Some examples of how blockchain is currently being used (other than to aid in cryptocurrency exchanges) include:

- 1) Kodak, which has created KODAKOne, to assist photographers in protecting their photographs. The KODAKOne platform creates an encrypted, digital ledger of rights ownership for photographers’ work. This will ensure that when the photograph is downloaded, the photographer will get paid.
- 2) The CERTIFIED FINANCIAL PLANNER™ board recently integrated blockchain technology to make all 83,000 CFP® Professionals’ credentials accessible on a blockchain distributed ledger.
- 3) IBM created IBM Blockchain to assist companies with tracking the status and condition of each product on their supply chains, from raw materials to distribution.
- 4) MedicalChain, a UK company, is the first healthcare company to use blockchain technology to store and utilize electronic health records.
- 5) In October, Ticketmaster acquired a blockchain live events company called Upgraded. They are planning to use blockchain technology through encrypted barcodes to help prevent fraud in printed or PDF based tickets.

Potential uses for blockchain technology include:

- 1) Smart contracts that pay immediately upon completion of service or receipt of product
- 2) Facilitating construction loan draws/payments
- 3) Recording change of ownership of assets (titles, deeds, registrations)
- 4) Implementing instantaneous securities settlement
- 5) Maintaining electronic medical records, billing and claims
- 6) Tracking inventory, distribution and payments
- 7) Automating business processes
- 8) Protecting copyrights and royalties
- 9) Processing credit card charges and payments
- 10) Sharing data (tracking news sources)
- 11) Voting digitally
- 12) Track food products from field, to supermarket, to home
- 13) Backing up data
- 14) Assisting with tax regulation and compliance
- 15) Distributing Inheritances
- 16) Granting access to property through digital keys
- 17) Tracking prescription drugs

For more information on potential uses, see link below to an article\*\* by Sean Williams on The Motley Fool.

While you may not currently see a need for this technology, its widescale use is right around the corner. The uses for Blockchain are limitless, and some fear that it will intrude on our privacy. Good or bad, it is coming and will soon be a part of our everyday lives. Buckingham Financial Group wants to be on the forefront of this new tool. If you want to learn more about blockchain technology, join us on Tuesday, May 7, 2019 at 5:30 pm in our Education Center. To register for this event, please go to our Events Tab on our website.

External Links:

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\*<https://www.bing.com/videos/search?q=interview+discussing+internet+in+1990s&view=detail&mid=C5A6F842EA486528020FC5A6F842EA486528020F&FORM=VIRE>

\*\*<https://www.fool.com/investing/2018/04/11/20-real-world-uses-for-blockchain-technology.aspx>