

The Big Picture

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As we begin to recover from the COVID-19 pandemic, how will our world be different? In a look at The Big Picture, faculty from the Huntsman School provide their thoughts on leadership, learning and teaching, finance, and energy.

What are Cryptocurrencies and Why do They Matter?



Dr. Todd Griffith graduated with honors, earning a Ph.D. in Finance from the University of Mississippi. He received an MS in Financial Economics and a BS in Economics from Utah State University. He teaches Corporate Finance, Investments, and Markets and Trading.

Todd Griffith | Assistant Professor, Economics & Finance

A cryptocurrency, or crypto, is a digital exchange system in which units are generated and transacted without a central authority. Unlike traditional currencies that are regulated and controlled by a government entity, cryptocurrencies are created, stored, and exchanged in online ledgers (blockchains) that are spread across many computers. Therefore, instead of a small number of organizations, like central banks, controlling, maintaining, and updating a ledger, cryptocurrencies operate in a decentralized system with a distributed ledger. The verification process in which new coins are entered into circulation and transaction amounts are confirmed is called mining. Cryptocurrencies use a variety of different mining technologies, such as restricting the number of transactions per unit time. There are currently over 10,000 publicly traded cryptocurrencies with a total value of more than \$1.4 trillion. Bitcoin is the largest of the cryptocurrencies with a value of nearly \$750 billion. In practice, the two primary roles of cryptocurrency are money and investment.

To be perceived as money, cryptocurrencies need to satisfy the following three functions: (1) medium of exchange, (2) store of value, and (3) unit of account (measurement of value through time). First, the number of individuals and merchants that use cryptocurrencies as their primary transaction method is still low relative to conventional payment systems, such as Visa or PayPal. Second, the strong demand for, limited supply of, and monetization of cryptocurrency gives it the potential to protect against inflation, making it a decent store of value. Last, the price discrepancies of cryptocurrencies across markets without the possibility of arbitrage, and high time series volatility, may undermine their usefulness as units of account. I believe that cryptocurrencies operate like money in some environments, but do not yet contain all the attributes of currencies like the U.S. dollar. With that said, cryptocurrencies have the potential to be a safer, faster, and more cost effective medium of exchange than centralized payment methods.

Many individuals include cryptocurrencies in their investment portfolios. The main challenge is estimating the value of cryptocurrencies, as they lack fundamentals. Hence, unlike traditional investments such as stocks, bonds, real

estate, and commodities, there is no underlying asset backing cryptocurrencies. The uncertainty in the value of cryptocurrencies makes them subject to much speculation and, consequently, highly volatile. Additionally, in order to profit off cryptocurrency investments, someone must pay more for the currency than you did (“the greater fool” theory) as it does not generate cash flows. As of now, I view cryptocurrencies as high-risk speculative investments not for the faint of heart.

The future appears to be in cryptocurrency technology, which was created to safeguard information, speed up transactions, and remove intermediate links. Thus, if operating efficiently, a cryptocurrency may allow for peer-to-peer transfers without the risk of a single entity gaining excessive power over the monetary system.

The Impact of COVID for Teaching and Learning



Dr. Pam Dupin-Bryant was recognized as the USU Teacher of the Year in 2016, while Dr. Bob Mills is a two-time recipient of the Huntsman School Teacher of the Year Award.

Pam Dupin-Bryant and Bob Mills | Professors, Data Analytics & Information Systems

While Utah State University has been in the vanguard of distance learning opportunities for students for the past few decades, many students and instructors had not had the opportunity or inclination to participate in remote learning prior to the COVID-19 pandemic. That all changed on March 12, 2020, when all USU students and instructors were notified that in-person classes would be canceled and made available online beginning March 18.

As instructors were forced to transition to alternative delivery formats, the educational benefits of online and hybrid courses became more pronounced. With about one week to transition to all remote learning and teaching, we, together with our colleagues, focused on how we could exceed student expectations by including an effective, efficient, and immersive learning experience where students felt connected. While the shift to remote learning and teaching mid-semester last Spring created numerous challenges, we also learned how students learned online, and in many cases, we created wholesale changes to course organization, sequencing, assessment, collaboration, engagement, motivation, and detailed course expectations for Summer and Fall semesters. As we adjusted to a new reality, our new student-centered online and hybrid courses were designed with a level of quality that in many ways exceeded traditional onsite courses.

We believe the myriad challenges overcome this past year will create lasting improvements in the educational experience. Providing students with a choice in educational delivery methods (traditional onsite, online, interactive broadcast, or hybrid) enables students to become active learners who can balance internships, work, family, and other off campus commitments without disrupting their education. Participating in courses utilizing a variety of technologies helps prepare future business leaders for remote work and dispersed workforces.

Harvard Business Professor Clayton Christensen considered online course delivery a 'disruptive innovation' in higher education. The pandemic disruption to education has accelerated the implementation of the hybrid educational model. The innovations and technologies employed during the past year will make quality education more accessible and prove beneficial to the future of higher education.

Understanding Consumer Adoption of Electrified Transportation



Dr. Antje Graul is an Assistant Professor of Marketing. She teaches Sustainability Marketing and Digital Marketing. Dr. Graul received her Ph.D. in Marketing, Business and Management, and an M.A. in Corporate Communications and Public Relations from Leeds University.

Antje Graul | Assistant Professor, Marketing and Strategy

The electrification of transportation is currently on the rise. Especially in areas such as the Intermountain West, electric vehicles hold a huge potential to help decrease vehicle emissions and air pollution. Often driven by environmental considerations or expected fuel cost savings, more and more consumers are starting to switch to an electric vehicle model, such as the Chevrolet Volt or the Tesla Model 3. Transit agencies are also implementing electric bus lines into their networks. For example, Park City, UT, is currently operating several zero-emission electric bus lines, and the city is planning to expand their electric bus network over the upcoming years.

But would you personally invest in an electric vehicle if you could? Barriers to electric vehicle (EV) adoption still exist, especially in rural areas. Concerns regarding the vehicle's driving range and the availability of charging infrastructure, along with the comparatively high initial up-front costs, are important considerations for consumers.

As co-lead of the Adoption Research Thrust at the ASPIRE (Advancing Sustainability through Powered Infrastructure for Roadway Electrification) NSF Research Center headquartered at USU, my research aims to detect and categorize those potential challenges from a consumer perspective and turn them into equitable opportunities that accelerate EV adoption.

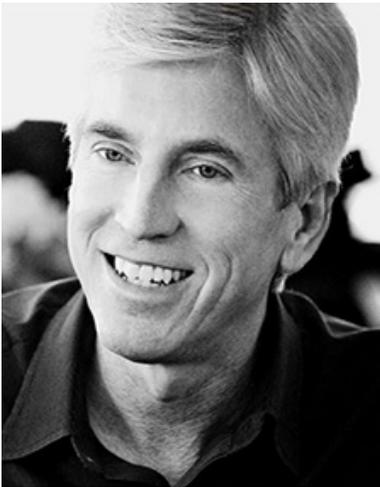
For example, the ASPIRE Center prototypes new battery and charging technologies, including inductive charging technologies, that could help catalyze EV market share if adopted by consumers and agencies. Inductive, or wireless in-motion charging, allows vehicles to charge while driving. This novel technology can help eliminate range anxiety, charging wait times, and ultimately reduce the vehicle's costs due to a decrease in the battery size that is needed. The Federal Highway Administration supports such innovations.

Coming from a business and social science background, my work focuses specifically on understanding aspects of consumer behavior and motivation related to electrified transportation and charging infrastructure. These insights are important as they help identify ways in which EV adoption at scale can be reached in the Intermountain West and beyond. Our team's insights come from data analysis, lessons learned, and tools we develop from multiple sub projects that we conduct. For example, as part of a multi-year long research project led by PacifiCorp, my research helps inform charging

infrastructure deployment and incentives that could help increase EV adoption in rural areas and National Parks. In another interdisciplinary research project funded by the Department of Energy, my team and I aim to better understand consumer perceptions of electrified transit bus transportation in the greater Salt Lake area. For example, electric buses offer quiet operation and better acceleration, which could also improve the quality of service and potentially increase bus ridership.

Together, increasing adoption of electrified transportation will continue to be an important topic not only in the Intermountain West but across the globe. As an increase of widespread electrification across vehicle classes can help provide a sustainable future, it improves air quality and health for generations to come — an amazing impact of this work.

Leadership in a Post Pandemic World



Steve Milovich enjoyed a long career in human resources, culminating in his service as the Senior Vice President, Global Human Resources, Talent and Workforce Diversity for Disney | ABC Television. He also serves on the Huntsman School National Advisory Board.

Steve Milovich | Executive in Residence and Senior Lecturer

“The future is already here—it is just not very evenly distributed.” I love this quote. The workforce of the future is already here. What American speculative fiction author William Gibson is alluding to is the fact that what will constitute “normal” in the lives of those living in the future already exists for some of us today.

If you had asked every Fortune 500 CEO and their staffs even a month before the pandemic whether they could imagine having even 15% of their workforce working remotely every day within the next two to three years, those answering yes would have been in the low single digits. Yet these same companies had 50% to 75% to even 100% of their workforces working remotely for the past year.

Almost overnight companies were forced to break with old paradigms, thinking and assumptions. They had no choice but to quickly adapt to this emerging new normal. They were, in effect, forced to trust their employees. Not just those at the top, but their entire workforce. The old belief systems of leaders were also challenged and eroded almost overnight. Time spent physically at work, for example, with all its attendant biases about performance and potential equaling time at work, faded quickly. Most leaders would never publicly admit that this was a conscious factor in their assessment of employees.

Many leaders had to reflect upon whether or not they were “trustworthy,” as the late Dr. Stephen R. Covey defined it. It was likely uncomfortable for more than a few leaders to trust that their employees would actually carry on working from their bedrooms and kitchens—which they did quite well, in fact, and at even higher levels of productivity. All this occurred without their leader’s physical oversight. And what might this have done to the leader’s ego and leadership style? Change can be hard, even for the boss. Like the consumer world, leaders will need to “personalize” and tailor their leadership to individual employees to successfully lead in a post-pandemic world.

Here are my Top Five of the many key learnings and implications for leaders as part of their workforce of the future planning and development. Leaders must now:

1

Lead in Multiple Worlds and Dimensions

Become proficient in leading their entire organizations in the virtual, the physical, and the augmented worlds. All three are now mandatory. How you show up, how you behave, all your non-verbal cues and tells are amplified positively and negatively. Be present. Be aware of your potential impact as you engage employees in these dimensions.

2

Leverage Technology to Amplify and Augment Human Capabilities

Amplify and augment individual workforce and team capabilities, creating “workforce superheroes” underpinned by various technology platforms, including artificial intelligence and machine learning. The idea here is to supplement rather than supplant human capability.

3

Impact and Influence a Diverse Workforce at all Levels

Influence and gain the trust of an increasingly diverse workforce. Creating inclusive workplaces, in the broadest sense, will become a differentiator for who ultimately succeeds as a leader and as an organization. A leader must treat employees the way employees want to be treated, not how the leader would want to be treated. This goes somewhat against what your parents and teachers may have told you.

4

Incorporate a Default Strategy of Leading Centered On Empathy and Storytelling

The pandemic put a spotlight on leaders and companies who successfully led with empathy and who engaged their employees with storytelling, not primarily with data and numbers. As humans, we are still moved to action in much the same way as our earliest ancestors: through empathy and storytelling.

5

Recognize and Employ the “And” Strategy

Recognize and employ an “and” approach and strategy to workforce of the future opportunities and challenges. For example, it is not just about remote work vs. onsite work; it is about remote work and onsite work. Leaders need to shift to an optimization model that factors in the competitive advantages of appropriately weighting the voice of employees, and not by default overemphasizing the voice of the CEO or a small cadre of senior leaders. Those who get this right will win. Period.