

THEMATIC INVESTING in DISRUPTIVE INNOVATION



www.ark-invest.com

INTRODUCTION CATHERINE D. WOOD, CEO/CIO



2014 Founded ARK Invest

12 years at AllianceBernstein
Chief Investment Officer of Global Thematic Strategies
(\$5 billion AUM)

Co-founded Tupelo Capital Management

\$800 million under management, the largest women-run hedge fund in the world in 2000

18 years with Jennison Associates

Chief Economist, Equity Research Analyst, Portfolio Manager and Director

3 years with Capital Group

University of Southern California

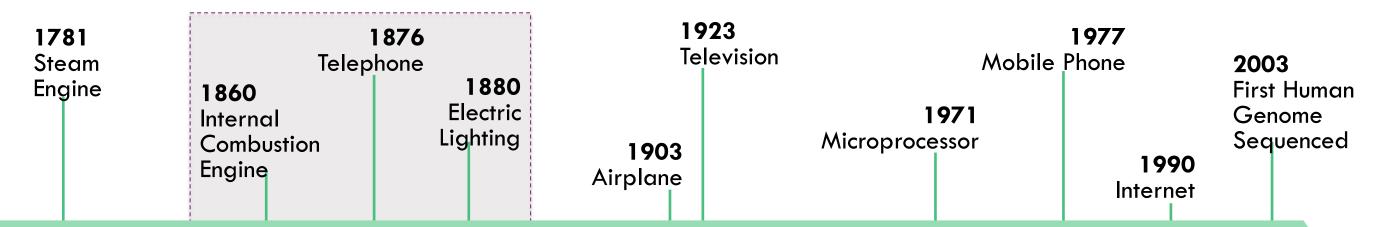
B.S., summa cum laude, in Finance and Economics



THEMATIC INVESTING POWERED BY DISRUPTIVE INNOVATION

WHAT IS DISRUPTIVE INNOVATION?

Disruptive innovation is the introduction of a new product or service that permanently changes an industry landscape by creating simplicity, convenience and accessibility while driving down costs.

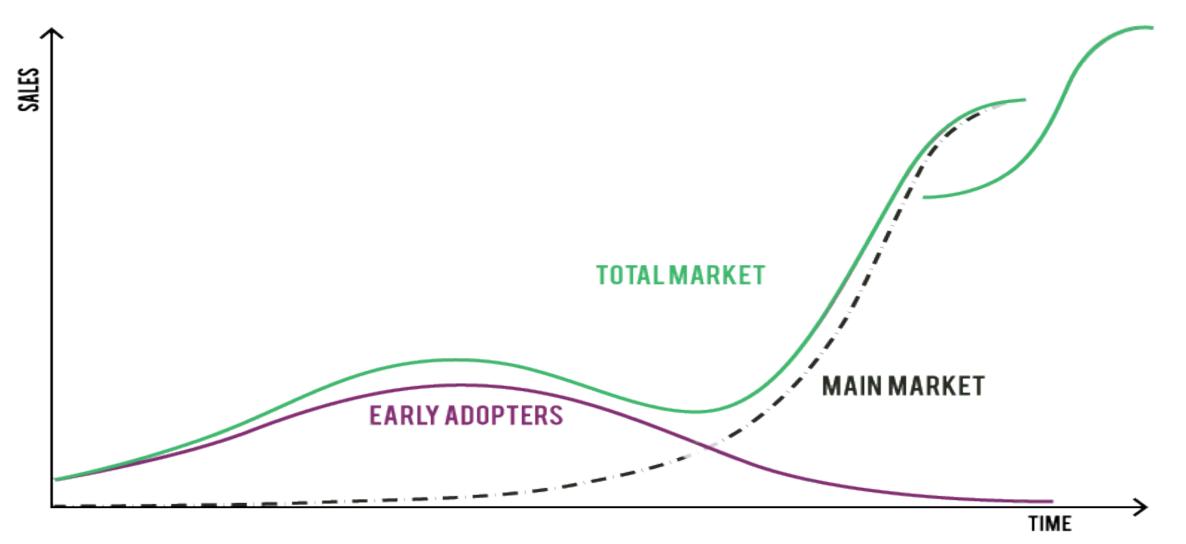


Selection of Historical
DISRUPTIVE INNOVATION



TECHNOLOGY IS CHANGING EVERYTHING AT AN ACCELERATED RATE

UNDERSTAND THE TECHNOLOGICAL TRENDS TO STAY AHEAD OF THE CURVE.





DIFFERENTIATION

COMPANIES THAT FALL BETWEEN THE CRACKS

CAPITALIZATION ON THE CONVERGENCE OF SECTORS

Percentage Weight in Russell 3000 Growth Index*













*ATHN: 0.04%

*ILMN: 0.25%

*SSYS: 0%

*NFLX: 0.44%

*TSLA: 0.20%

*AMZN: 1.71%

IDENTIFYING ECOSYSTEM ENABLERS













*NVDA: 0%

*XLNX: 0.02%

*MDSO: 0.02%

*SPLK: 0.07%

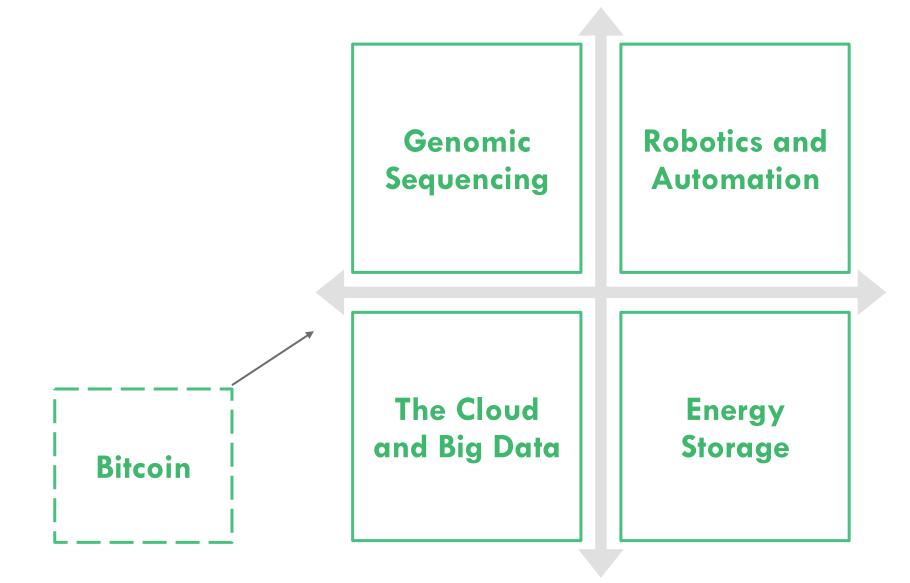
*HDP: 0.002%

*AMBA: 0.03%



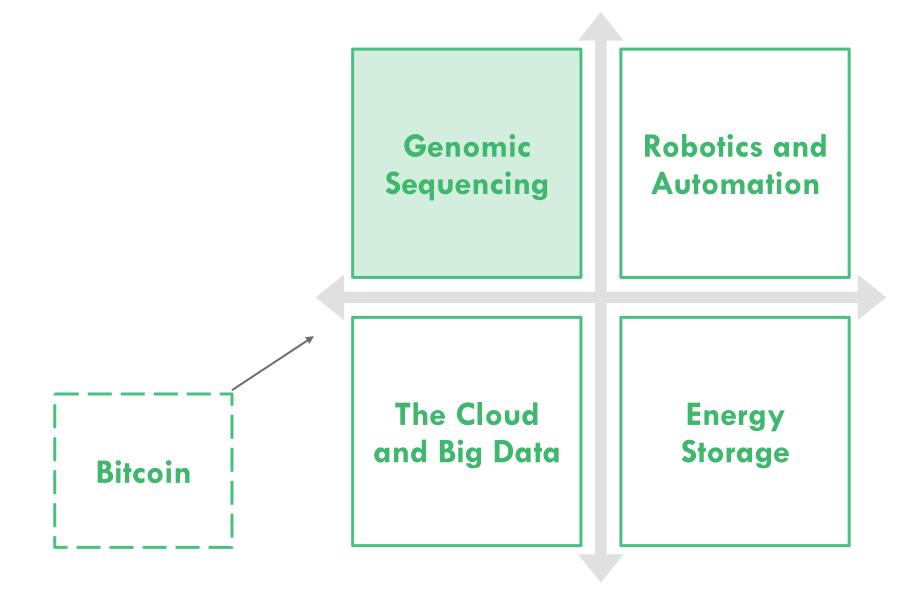
^{*}As represented by the iShares Russell 3000 Growth ETF: http://www.ishares.com/us/products/239713/ishares-russell-3000-growth-etf (as of 08.12.2015) The companies referenced are for illustrative purposes only and are not endorsements by ARK of any particular company or security and are not recommendations by ARK to buy, sell or hold any security.

FOUR GENERAL PURPOSE TECHNOLOGY PLATFORMS DRIVING INNOVATION TODAY





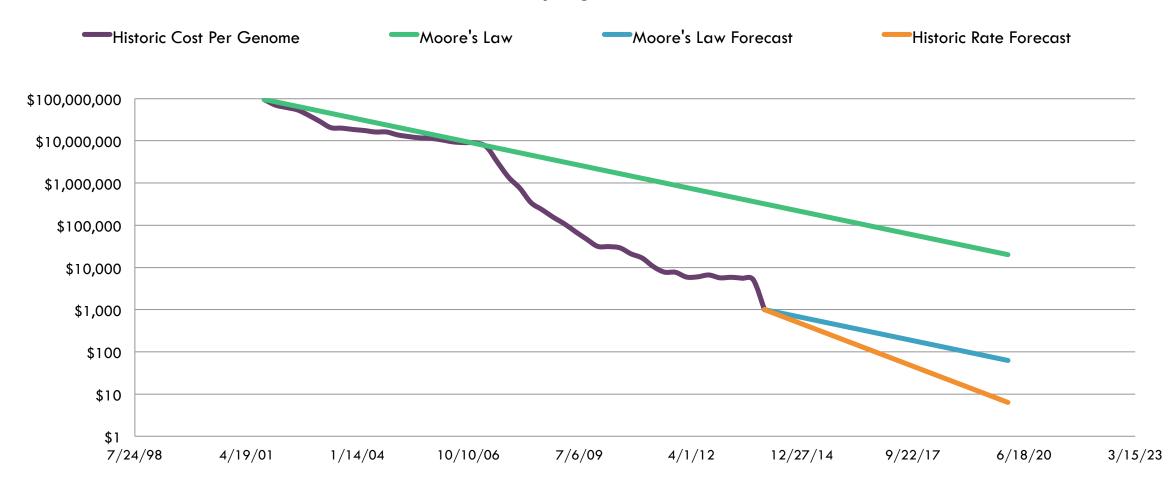
FOUR GENERAL PURPOSE TECHNOLOGY PLATFORMS DRIVING INNOVATION TODAY





GENOMIC SEQUENCING

Projected Cost to Sequence a Whole Human Genome (monthly, log scale)

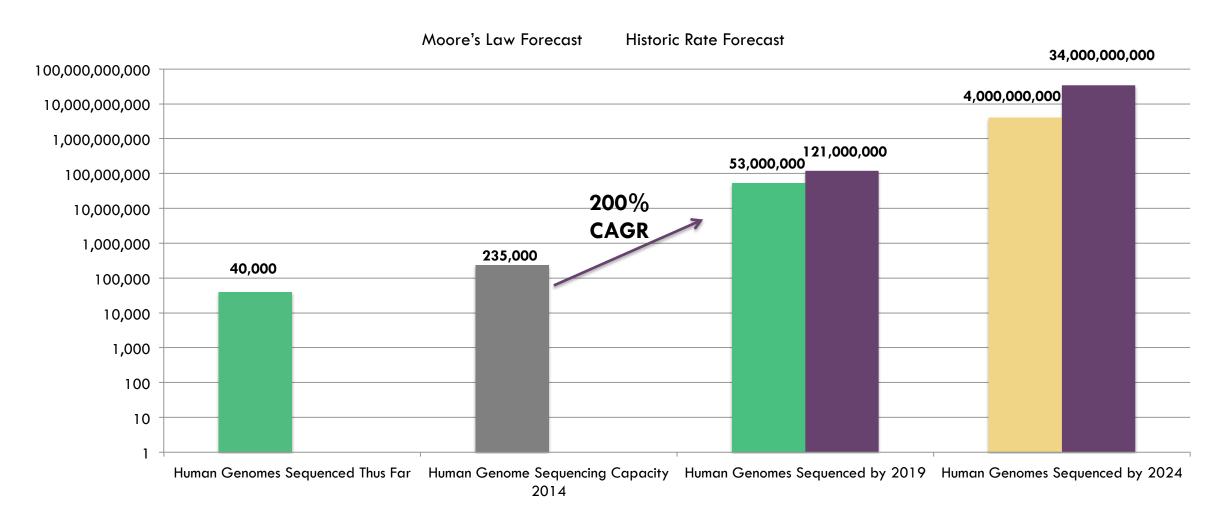


Source: ARK Investment Management LLC Projections are not guarantees.



GENOMIC SEQUENCING

Estimated Number of Human Genomes Sequenced Over the Next 5 and 10 Years



Source: ARK Investment Management LLC Estimates are projections and not guarantees.



GENOMIC SEQUENCING

ILLUMINA CASE STUDY - AN EXAMPLE OF A DISRUPTIVE COMPANY

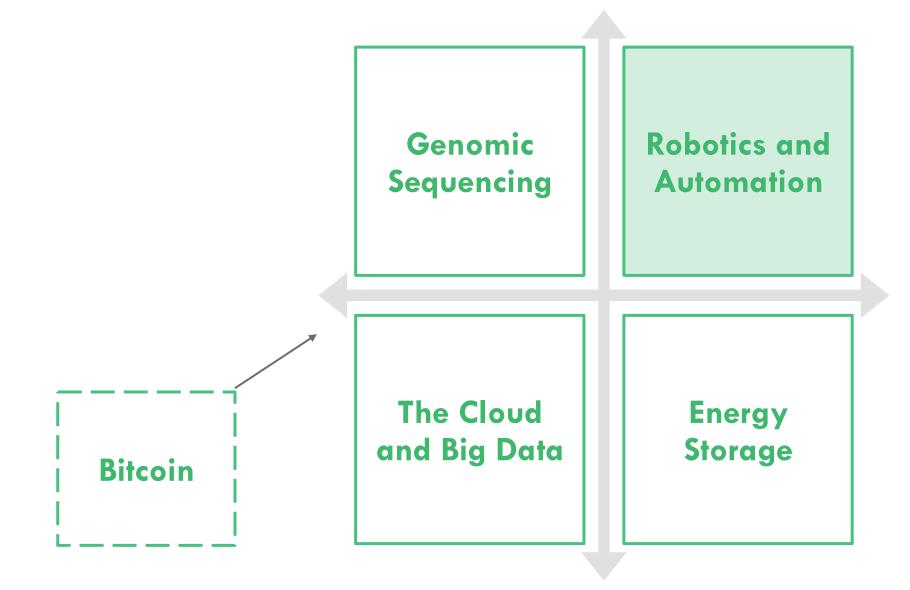


Source: Bloomberg

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FOUR GENERAL PURPOSE TECHNOLOGY PLATFORMS DRIVING INNOVATION TODAY





ROBOTICS AND AUTOMATION

Accelerating Capital Spending on Robotics will Disrupt Labor



By 2035:

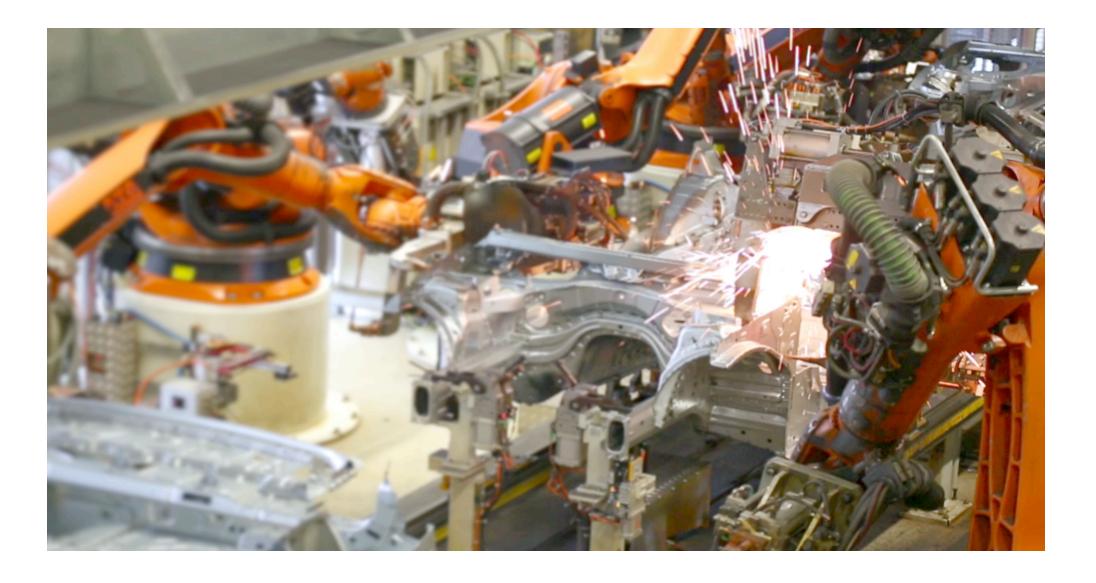
- 47% of American Jobs will be replaced by automation
- Automation will generate \$12 trillion in additional GDP

Source: ARK Investment Management LLC, Oxford University Study Projections are not guarantees.



ROBOTICS AND AUTOMATION

ARK'S ORIGINAL RESEARCH ON THE FUTURE OF AUTOMATION

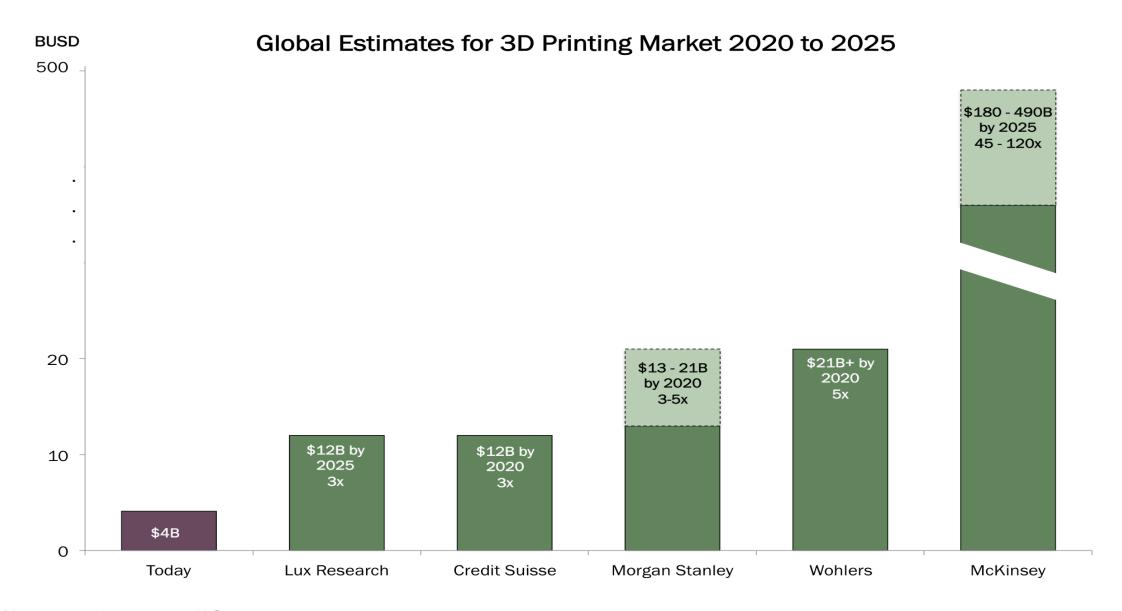






ROBOTICS AND AUTOMATION

3D PRINTING



Source: ARK Investment Management LLC Estimates are projections and not guarantees.



ROBOTICS AND AUTOMATION: 3D PRINTING

STRATASYS CASE STUDY - AN EXAMPLE OF A DISRUPTIVE COMPANY

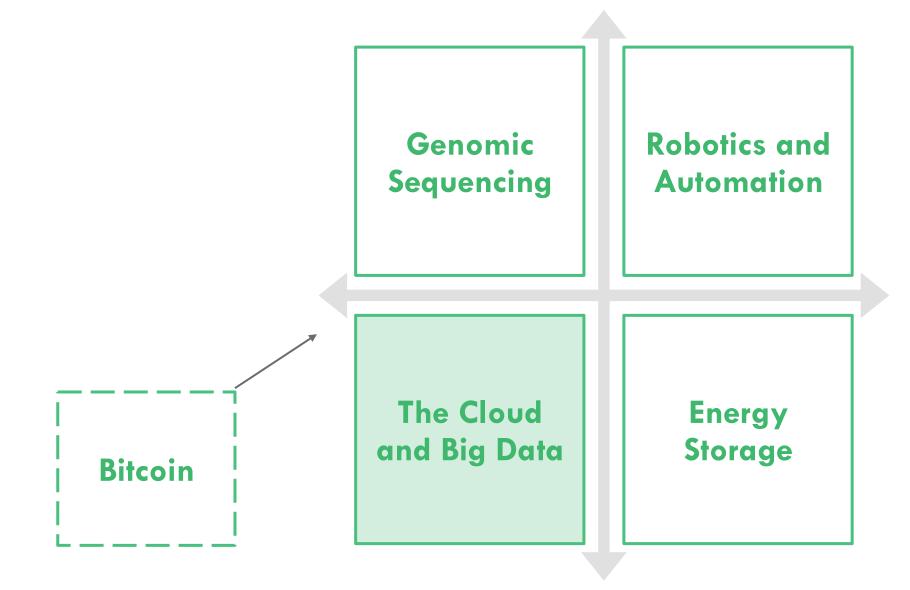


Source: Bloomberg

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FOUR GENERAL PURPOSE TECHNOLOGY PLATFORMS DRIVING INNOVATION TODAY





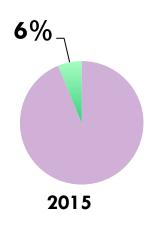
THE CLOUD AND BIG DATA

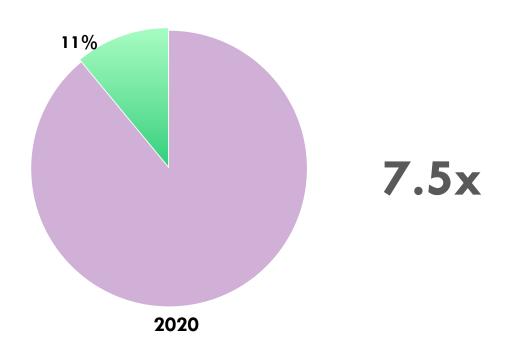
DATA ANALYTICS WILL BE REQUIRED TO STAY RELEVANT

- Mining massive unstructured datasets via machine learning will be crucial for insights
- In 2000 98% of connected devices were computers, by 2020 it will be only 9%

Putting Useful Data to Use





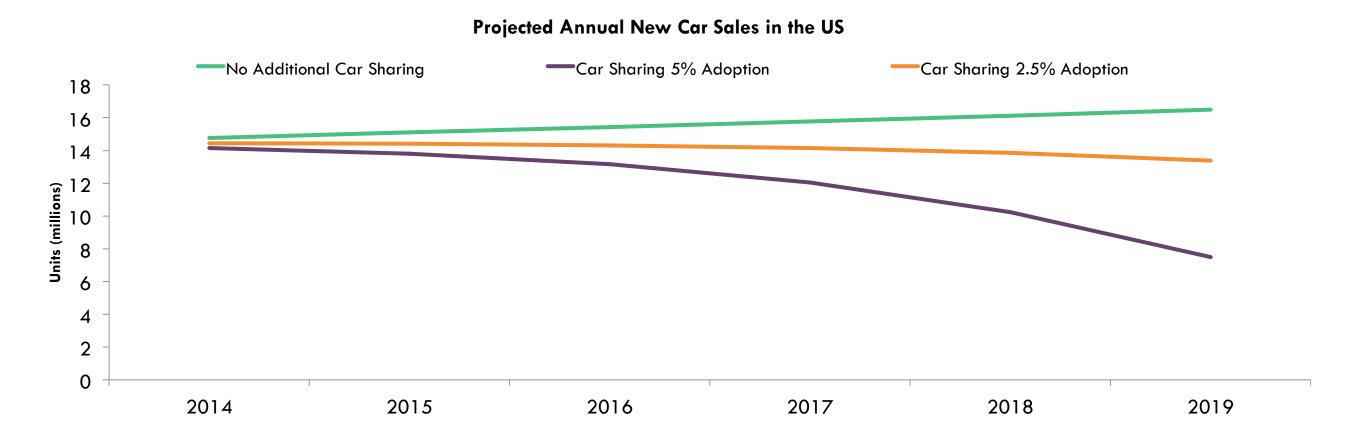


Source: ARK Investment Management LLC Projections are not guarantees.



THE CLOUD AND BIG DATA SHARING ECONOMY

If the sharing economy reaches 5% penetration, US auto sales will fall from 14-15 million to 7-8 million by 2020, even in a strong economy.

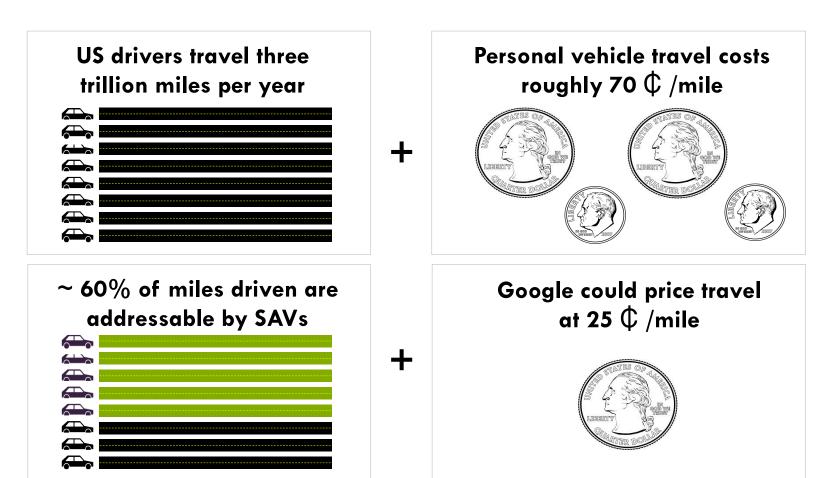


Source: LA Times, Center for Automotive Research (CAR), USDT Federal Highway Admin 2009 National Household Travel Survey, Zipcar 2014 Annual Report Projections are not guarantees.



THE CLOUD AND BIG DATA

SHARED AUTONOMOUS VEHICLES



Scar owners spend \$2.1 trillion on driving per year

\$450 billion opportunity for shared autonomous vehicles

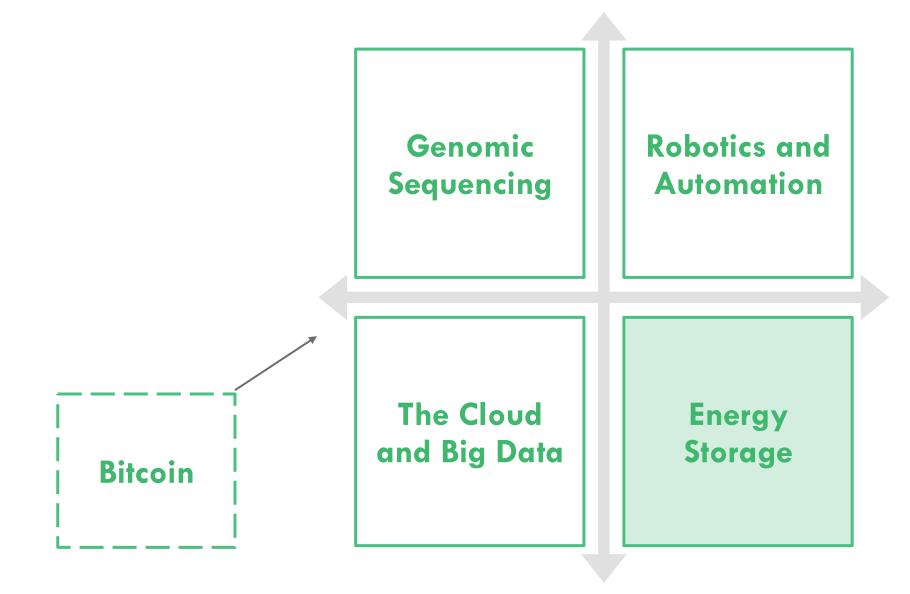
Consider:

- If SAVs replace 60% of US vehicles, 740 million parking spaces worth \$13 trillion free up
- Human error contributes to 90% of auto accidents
- Vehicles are stranded assets, utilized only 4% of the time on average

Source: ARK Investment Management LLC Projections are not guarantees.



FOUR GENERAL PURPOSE TECHNOLOGY PLATFORMS DRIVING INNOVATION TODAY

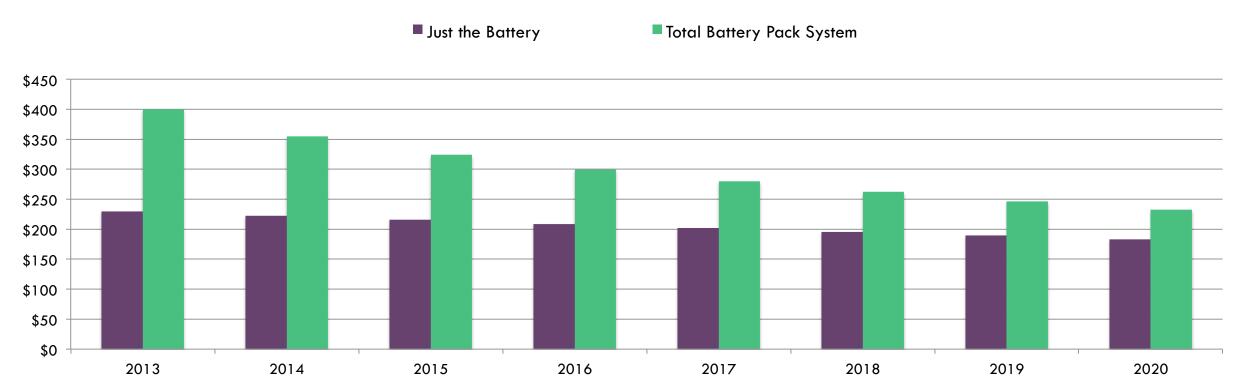




ENERGY STORAGE

Electric vehicles are 4x more energy efficient than combustion engine vehicles. Battery pack system costs will drop 40% by 2020.

Estimated Cost of Tesla Battery vs. Cost of Total Battery Pack System



Source: ARK Investment Management LLC Estimates are projections and not guarantees.



ENERGY STORAGE

OIL CASE STUDY

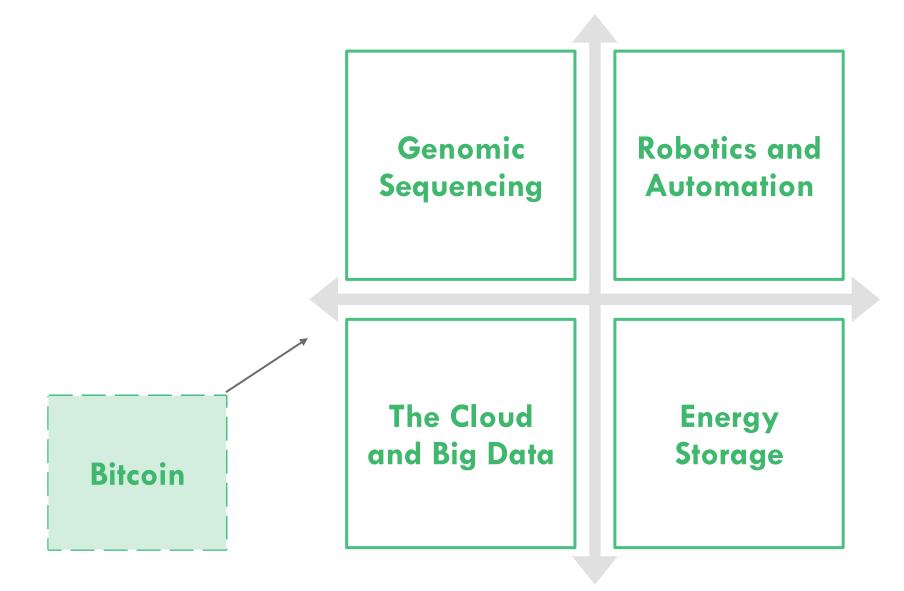


Source: Bloomberg

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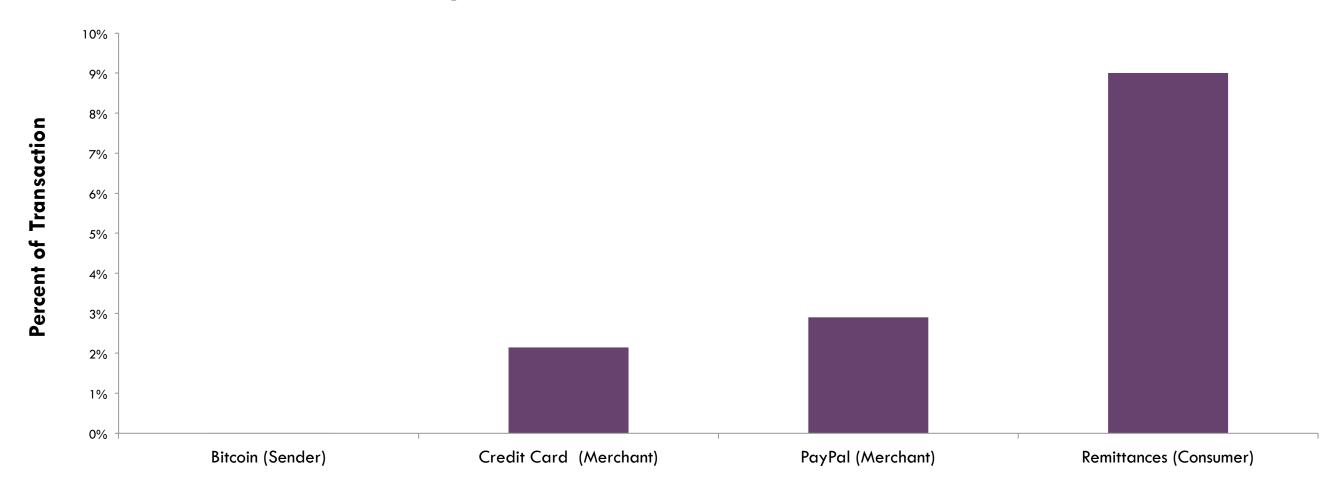


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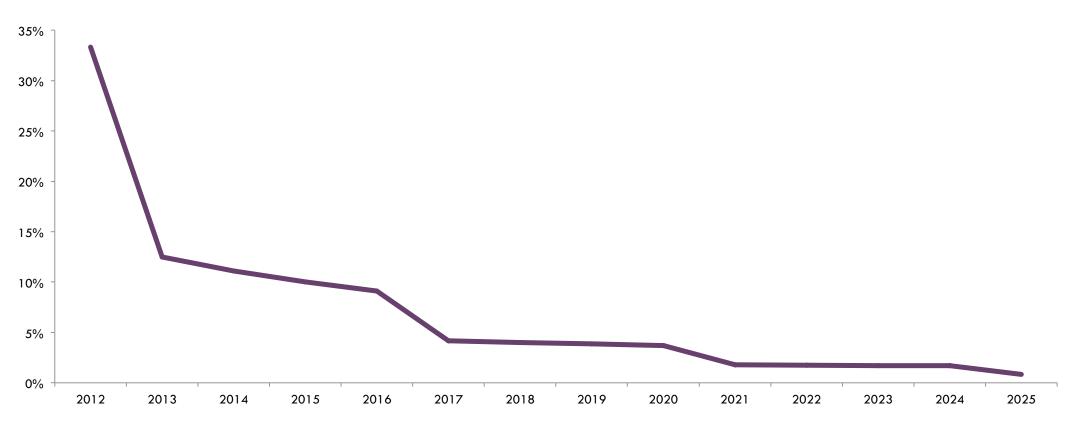
Payment Method Transaction Fees



Source: ARK Investment Management LLC
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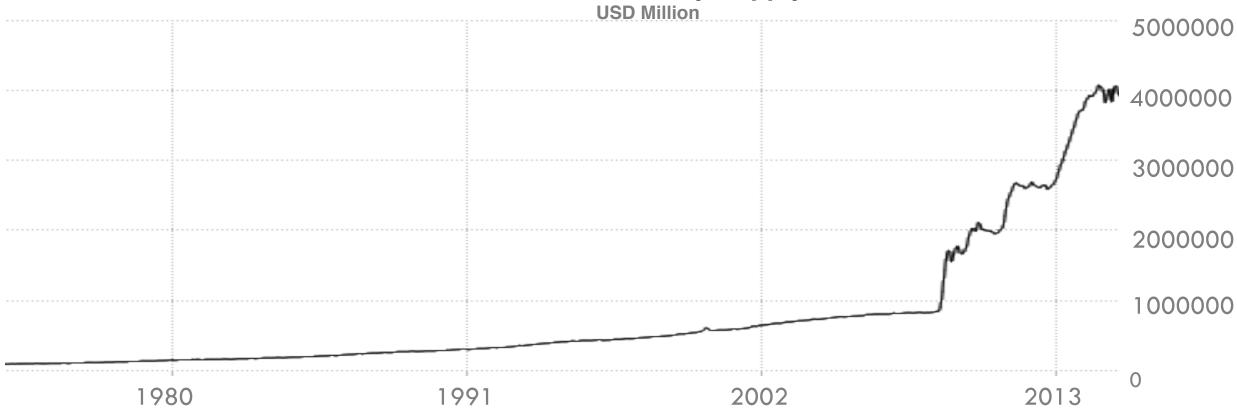
Deterministic Expansion of Bitcoin Supply



Source: ARK Investment Management LLC
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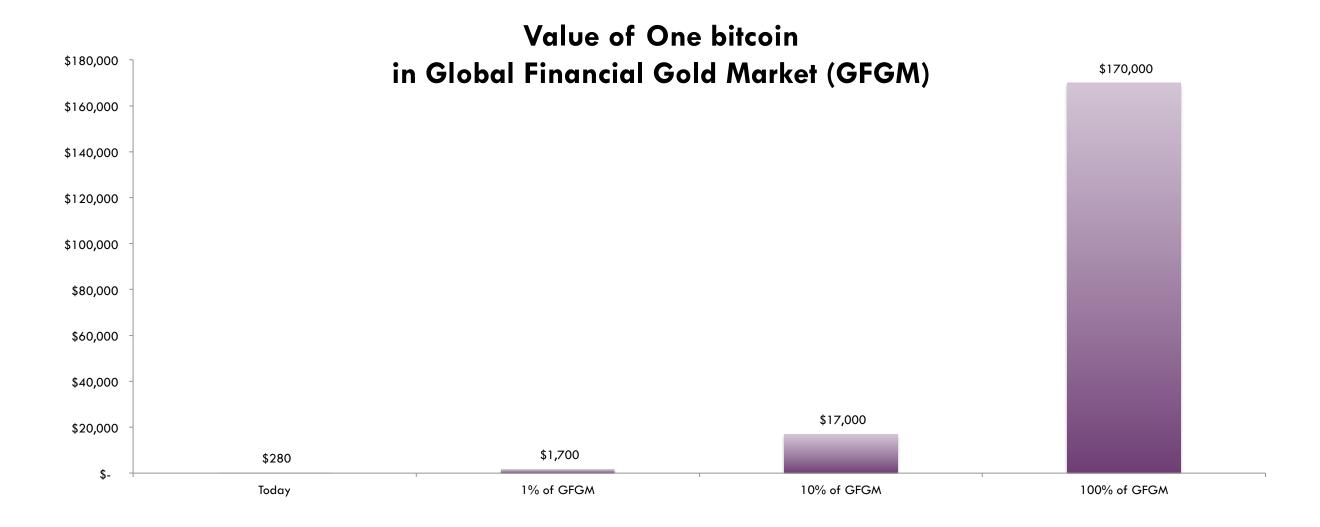
• By 2030, the United States Money Supply M0 is projected to trend around 5,537,118 USD Million

Source: The United States Money Supply MO:

http://www.tradingeconomics.com/united-states/money-supply-m0/forecast (as of 8.21.2015)

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DISRUPTIVE INNOVATION IS A THEMATIC INVESTMENT OPPORTUNITY

WHAT IS THEMATIC INVESTING?

A thematic approach seeks investable ideas to capture opportunities from long-term trends or secular shifts that cut across economic sectors and geographic boundaries.



Recognize that the world is changing rapidly.



Incorporate a deep understanding of the underlying drivers of long term value creation and risk.



Look forward to provide a dynamic and flexible way to validate conviction-based decisions.



HOW INVESTORS BENEFIT FROM THEMATIC

1 PORTFOLIO DIVERSIFICATION TOOL

Thematic investing can offer a **low correlation of relative returns to traditional growth** strategies and **negative correlation to value** strategies.

2 UNIQUE SOURCE OF ALPHA

Top down approach looks at secular trends and ecosystems to find **attractive growth** opportunities across sectors.

3 HEDGE FOR INDEX-BASED STRATEGIES

Constant focus on secular changes and disruptive innovation can offer a portfolio hedge in a rapidly changing world and complement traditional strategies.



DISRUPTIVE INNOVATION IS KEY TO GROWTH

OFFERING INVESTORS
POWERFUL PORTFOLIO **DIVERSIFICATION**AND PROSPECTS FOR LONG-TERM **GROWTH**IN A SLOW GROWTH WORLD

INVESTING IN THE COMPANIES THAT ARE CHANGING THE WAY THE WORLD WORKS AND MAKING IT A BETTER PLACE





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Index Descriptions: The Russell 3000® Growth Index measures the performance of those Russell 3000® Index companies (the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market) with lower composite value scores.