

Future of Work

How the accelerated pace and complexity of change could impact Lincoln

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Agenda and Take-Aways

- Take-aways
 - Start this work as a priority
 - Both as a defensive as well as offensive perspective
 - Survival of your company depends on it
- Agenda
 - Magnitude of Change
 - Scenarios
 - Medical Technology Advancements
 - Changing Workforce
 - Rise of Super Competitor
 - Suggested Next Steps
 - Appendix (interesting read)



Project Overview

BACKGROUND & CONTEXT

- Product line leadership recognized need to enhance emerging risk discipline given the long-term, non-cancelable nature of the product
- Quickly evolved into “Future of Work” – exploring ways advances in technology and changes in the workforce could impact our business
 - Defensive as well as offensive
 - Contracts, Financial, Claims, Sales, etc.
- Did not try to predict the future, but developed scenarios along three topics including what implications might be
 - Medical Technology Advancements
 - Changing Workforce
 - Rise of Super Competitor
- Common themes arose from the scenarios
 - Increasing pace of change
 - Driven by machine learning, processing speed, cloud, big data, network connectivity, etc.
 - Increasing complexity of change
 - Interaction of technology, regulation, demographic, and cultural dynamics.
 - There will be winners and losers at the individual and company level
 - Those who understand the change and adapt and those who do not.



Magnitude of Change

THOUGHT EXERCISE

Consider how much the world has changed in only the last 20 years....



The pace of change is accelerating with some experts predicting half of the S&P 500 to be replaced in the next 10 years!

Sampling of 4 Provocative Questions :

- What is our value proposition in the future when lines between products/offerings are blurred?
- How would our disability offering remain relevant in the work of a Universal Basic Income?
- Are we well positioned for the age of artificial intelligence when it becomes the new user interface?
- Will our successes as a company depend more on the partners we choose to keep up with the changing expectations of our customers than the insurance we provide? (e.g. platform vs. pipeline)



Medical Technology

SCENARIO HIGHLIGHTS

- Advances in medicine will soon make “modern medicine” as we know it outdated
- Real-time monitoring devices with advanced capabilities expected to become mainstream - will provide valuable data and analytics for improving health outcomes
- Robots supplemented by artificial intelligence will assist with diagnoses, medical procedure, and patient care
- Video conferencing and telemedicine will become more prevalent
- Advances in genomics will enable early identification, prevention, cure, and better treatment (e.g. designer drugs) of diseases that can now only be managed
- 3D printing enables increased use of artificial organs and appendages

Risks	Opportunities
Adverse selection as knowledge of health risks increases	Reduced morbidity
Contracts may not adequately anticipate future (e.g. “under care of physician” vs. robot)	Interim protection product / coverage for aging population
Unintended side effects on a grand scale (e.g. nanotechnology)	More available and precise data to price risk



Changing Workforce

SCENARIO HIGHLIGHTS

- Automation and artificial intelligence will fundamentally change the nature of the workforce
 - Retail, transportation among industries to be hardest hit - will also significantly impact white collar occupations traditionally viewed “safe” (e.g. blockchain and smart contracts replacing need for transactional office jobs)
 - Some leading experts predict unemployment on a grand scale; others predict workers will be merely displaced to other higher value occupations
 - The changing workforce will be characterized by net job loss and an ability for some to develop the new skills needed (e.g. Apple vs. Macy’s sales associate). A great many could be left behind
- Could see rise of non-work income, e.g government provided “Universal Basic Income”
- More part-time, contracted, and foreign workers
- People will work from location of their choosing - greater individualization will carry over into compensation and benefits

Risks	Opportunities
Competitors leverage automation and AI before you can placing you at a severe competitive disadvantage (e.g. blockchain technology)	Increased efficiency and lower costs as you leverages automation
Increased government programs (e.g. UBI) reduces demand for your products	Demand for shorter term, intermittent coverages (e.g. insure your car only while driving it)
Shrinking traditional Employer/Employee workplace reduces market for group products and distribution	New products and distribution to reach “gig workers”



Rise of Super Competitor

SCENARIO HIGHLIGHTS

- The “Business Model” of the future (platform v. pipeline) is significantly different than today’s model. The shift requires a movement from:
 - Resource control to resource orchestration
 - Internal optimization to external interaction
 - Customer value to ecosystem value
- When a platform enters a pipeline firm’s market, platform almost always wins (i.e. apple, uber, alibaba, airbnb, etc.)
- Customer demands and expectations continue to change, and our market is ripe for disruption
 - Today’s consumer values a more transparent, simple, and user friendly approach to the products they purchase. Customers want a relationship with companies, and customer friendly companies like Amazon, Google, Apple, etc are placing the customer experience at the forefront
 - While some of these companies may currently play exclusively in the online shopping, digital, and consume products world, the lines have been blurred - consumers are expecting similar experiences from all companies they do business with

Risks	Opportunities
Traditional employer distribution channel faces significant challenges as competitors market to and reach customers directly	Grow digital channel and explore ways to reach consumers directly
Competitor applies “lemonade model” to employee benefits - big data informs underwriting, automated claims decisions (“90 seconds to get insured, 3 minutes to get paid”	Invest in user experience and automation - leverage big data to recommend products (“customers like you buy..”)
No longer just competing with other insurance carriers for the ultimate customer experience	
Your business model doesn’t change resulting in a competitor significantly disrupting our ability to compete	

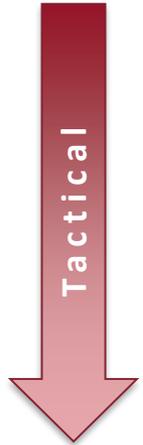


Suggested Next Steps

“...the best way to predict the future, is to create it.” (Abraham Lincoln)



- Dedicate resourcing with formal ownership to monitor change and study the implications to your company, beyond the typical business planning horizon
- Determine where you want to influence, partner, and follow
- Define value proposition of the future that is profitable and sustainable (e.g. platform vs. pipeline)
 - Evaluate how these developments can become value-added parts of our offering (e.g. genome testing that promotes health and reduces morbidity)
- Determine how you play if the traditional workplace significantly contracts
- Make strategic investments in future industry winners (competitors already establishing substantial venture funds and placing strategic bets)



- Determine how and when we start working with regulators to design regulatory framework that supports the future
- Determine how our products apply to the growing number of part-time and foreign workers
- Review contracts to anticipate new world (e.g. robotic care vs. “under the care of a physician”)
- Begin pricing and underwriting for projected industry winners and losers
- Evaluate the implications for a significant increase in life-expectancy (new risks, products)
- Identify medical technology we would require claimants use as part of contract



Appendix



The Jetsons Working Group

APPROACH

- **Phase 1: Research (the issue, external view) and Develop Scenarios**, by March
 - 2 people from Working Group assigned to each theme
 - Wide net: think about multiple scenarios of what could happen, downside AND upside
- **Phase 2: Implications**, by July
 - Includes: implications to all parts of the business, product-specific implications
 - Walk around the building - understand how it affects all aspects of our business (claims, services, IT, sales, etc)
- **Output:** develop report/document findings and engage risk committees business areas, management as appropriate



Scenarios – Impact & Opportunity

ADDITIONAL SME SUPPORT

Headline Scenario	Jetsons Owners	Weeks 1 - 2 SMEs (4/24 - 5/5)	Weeks 3 -4 SMEs (5/8 - 5/19)
Disruptive shifts in workplace structure	<ul style="list-style-type: none"> • • 	<ul style="list-style-type: none"> • • • 	<ul style="list-style-type: none"> • • •
Medical technology becomes consumer friendly and available to all	<ul style="list-style-type: none"> • • 	<ul style="list-style-type: none"> • • • 	<ul style="list-style-type: none"> • • •
Alternative players fundamentally transform the employee benefits industry	<ul style="list-style-type: none"> • • • 	<ul style="list-style-type: none"> • • • 	<ul style="list-style-type: none"> • • •



Example of Change

FOR REFERENCE



- Increase in telecommuting as improvements in technology make this more attractive
- Medical advancements - everything from electronic artificial limbs to gene splicing to designer drugs
- Increase use of nanotechnology (i.e. nanoparticles) and their long term health effects
- Virtual and Augmented Reality produce real world applications in healthcare, education, training and simulation (e.g. supplementing surgeon in the operating room)
- Blockchain technology enables “smart contacts” and simplifies cross-border payments
- Most Americans will have robot in home for basic household chores
- First implantable mobile phone will be available commercially and 10% of all reading glasses will be connected to the internet by 2023
- The first Artificial Intelligence machine on a corporate board of directors by 2026
- 10% of global GDP stored on blockchain technology by 2027
- Driverless cars reshape our world
 - Car ownership declines as subscription Uber model takes place. Urban areas will be reshaped with lower need for parking. Jobs in the transportation industry significantly reduced
- 3D printing transforms manufacturing and enables housing at a fraction of the cost
 - Ripple effects across the banking industry (up-ends mortgage business)

Specific predictions come from World Economic Forum’s Global Agenda Council on the Future of Software and Society’s Survey Report “Deep Shift: Technology Tipping Points and Societal Impact” | September 2015



Scenarios of Change : Autonomous Vehicles

FOR REFERENCE

- This scenario illustrates the breadth of change that could/will happen once self driving cars achieve level 5 status
- Acceleration to this reality is due to computer vision advances, ride-sharing, and electrification
- Adoption will be closer to technology adoption curves vs. transportation adoption curves (i.e no need to wait for consumer to purchase like e.g. solar power or PC's)
- Little motivation for an individual to actually own a car (currently your car sits idle 22 hours per day)
- Cities that have a fleet of AV's will become the envy of those that don't and the race will be on
- AV's may be the largest single change to how we function as a society since the Internet
 - Accident Avoidance (37k Americans die each year in auto accidents plus 3.7 million emergency room visits)
 - Free time goes up: commuters can start working immediately upon getting into the car
 - Rural areas have the potential to become more valuable as the magical "1 hour" commute is removed
 - Cost of living in the city is reduced (e.g. no parking fees with no car ownership)
 - Cities can be redesigned
 - Parking lots can become sources of low income housing
 - A significant amount of square footage of parking space in the US is freed up
 - Houses: who needs a 2 car garage anymore or a driveway
 - Car dealerships, car mechanics, gas stations all get freed up
 - Lost revenue from parking meters



Scenarios of Change : Autonomous Vehicles (cont.)

FOR REFERENCE

- Energy consumption
 - Electric vehicles and ride sharing reduce energy consumption
 - Estimates range up to 45% reduction
 - Reduction in greenhouse gases
- Work of Work
 - 3.5 million truck drivers in the US
 - Policing - 42% of encounters are traffic related (reduced staff or increased focus other places)
 - Local mechanics, car dealers, auto parts stores, gas stations, delivery services
 - New insurance model for cars
 - New services developed for AV's (e.g. mobile living rooms)
 - Employment and real estate knock-on effects
 - Airlines impacted as marginal flights can now be AV's



Scenarios of Change : Increase of Telecommuting

FOR REFERENCE

- This scenario illustrates the changing nature of work and the cultural and economic implications
- 3 phases to technology acceptance influenced also by generational changes
 - Adoption phase - within 10 to 15 years, most industries will have adopted because the equipment is now good
 - Economic phase - local economies react to having entirely different pressures (2025-2035)
 - Long Term Phase - the changes start to affect culture and society
- Company motivation ranges from a perk to actually needed less physical plant resulting in widespread adoption over time
 - Workers gain more flexibility
 - Cost employers less
 - Open to talent from anywhere in the world
- A new norm of worker categories develops, similar to white, gray and blue collar
 - Location dependent (both physical plant and people contact) and location independent
- Local economies are no longer tied to the one large employer
 - Location dependent - PP are moving from huge numbers of low skilled to a few high skilled
 - Location independent also become small numbers in many locations
 - Most jobs in the future will be location independent, followed by Location dependent - PC (Location dependent - PP are being automated)
- Significant change in the world of work due to significant numbers of location independent workers
 - Different management techniques
 - Different skills required



Scenarios of Change : Platform or Insurance Company

FOR REFERENCE

- This scenario illustrates the importance of determining how we are going to compete and what strategy we will use
- When a platform enters a pipeline firm's market, the platform almost always wins
 - 2007 - 5 major mobile phone manufacturers controlled 90% of the industry's global profit
 - 2015 - the iPhone singlehandedly generated 92% of global profit
 - The 5 players had classic strategic advantages (strong differentiation, trusted brands, leading operating systems, excellent logistics, protective regulation, huge R&D budgets, and massive scale)
- Apple exploited the power of platforms and leveraged the new rules of strategy
 - Platforms bring together producers and consumers in high-value exchanges
 - Chief assets are information and interactions
 - Connected two markets: app developers and app users generating value for both groups
 - As each side grows, value is continually increased (network effect)
- Firms that fail to create platforms and don't learn the new rules of strategy will be unable to compete for long
 - Platforms always have existed (e.g. mails, newspapers) but technology has made building and scaling simpler and cheaper
 - Examples include Uber, Alibaba, Airbnb
 - Platforms have 4 players (owners, providers, producers and consumers)
- You need to determine how it wants to compete in the future
 - Move from resource control to resource orchestration
 - Move from internal optimization to external interaction
 - Move from a focus on customer value to a focus on ecosystem value

