Foresight Analysis

The Art & Science of
Looking at the Future

Bay Area Community Council

Foresight Webinar #2

October 25, 2019

Facilitator

Garry Golden

OCTOBER – DECEMBER

October 4th
Scanning for Signals
(Framework Forecasting)

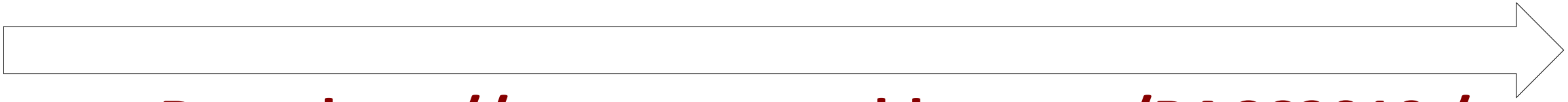
October 25th
Turning Signals into Stories

November 22nd
Creating Future Worlds

December 12th
Leading Change & Presentations

Between Now & Then:

- ❑ Era-Sheet Work w/ Garry
- ❑ Draft Four Futures Stories
- ❑ *Futures Wheel



Docs: http://www.garrygolden.com/BACC2019 /

FORESIGHT: KEY ACTIVITIES

Investigate
Identifying
& Monitoring Change

- ❑ Horizon Scanning
- ❑ Emerging Issues Analysis
- ❑ Indicator Analysis
  (Leading vs Lagging)

Imagine
Exploring Implications

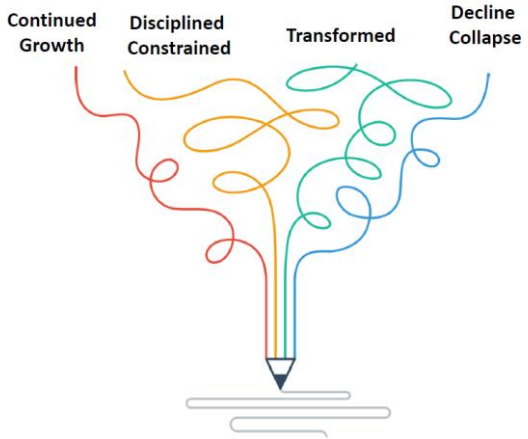
- ❑ Forecasts
  (Trend Extrapolation)
- ❑ Scenarios
  (Alternative Assumptions)

Inspire
Communicating the
Need for Change

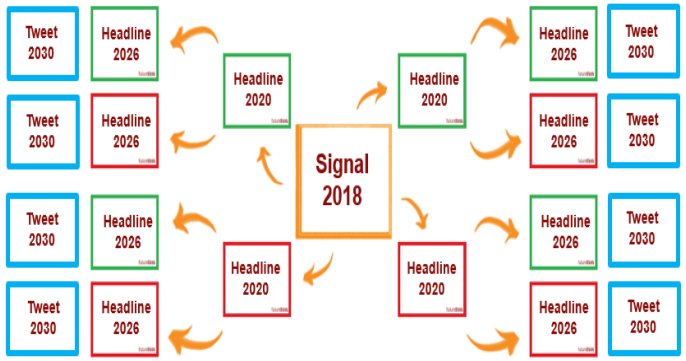
- ❑ Visioning & Backcasting
- ❑ Planning, Goal Setting & Roadmapping
- ❑ Transformation Management

Wendy Schultz/Garry Golden

OCT 25th WEBINAR: TURNING SIGNALS INTO STORIES



Four Futures



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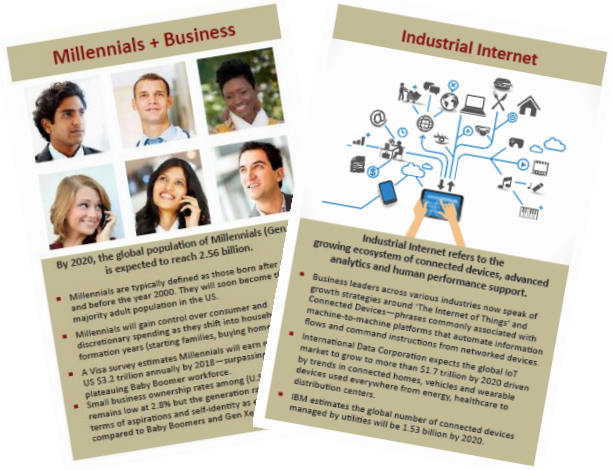

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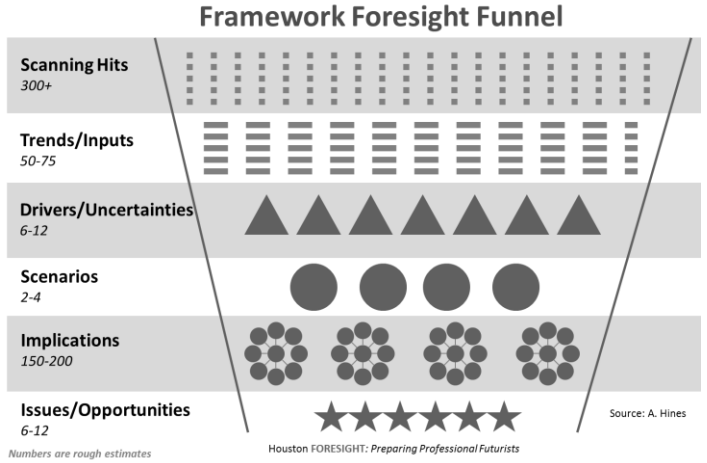

Framework Forecast

Why Build a Habit in Scanning for Signals?

Outcomes & Outputs

Step 1

Information + Inspiration

Step 2

Building Knowledge
(Framework Forecast)

SIGNALS – WORKFORCE DEV – BENEFITS (NOEL)

CNN BUSINESS Markets Tech Media Success Perspectives Videos

Chipotle will cover tuition for tech and business degrees

By Danielle Wiener-Bronner, CNN Business

Updated 9:57 AM ET, Tue October 15, 2019

Chipotle will pay for its employees to get business or technology degrees at certain colleges, the company said Tuesday. The new program, which kicks off on November 15, is the restaurant chain's latest effort to attract and retain talent in a highly competitive labor market.
Employees who have been at the company for at least 120 days and work a minimum of 15 hours per week can choose from 75 different degree programs at five schools: the University of Arizona,

Tags: Work; Workforce; HR; Benefits
https://www.diigo.com/user/garrygolden/workforce

as well as other education assistance programs.

SIGNALS – WORKFORCE DEV – BENEFITS

Uncertainty Workforce – Attracting & Retaining

- **Gen Z & Millennials**
  Student Loans; Paid Training & Development; Childcare

- **Gen X**
  They will get nothing and be happy about it

- **Boomers**
  Healthcare; Part-time Work; Caregiving Support

Tags: Work; Workforce; HR; Benefits
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SIGNALS (BARB)

October 04, 2019

Ashley Furniture Celebrates Grand Opening of Advanced Technology Maker Center

Tags: Training; 3D/Additive; Workflow
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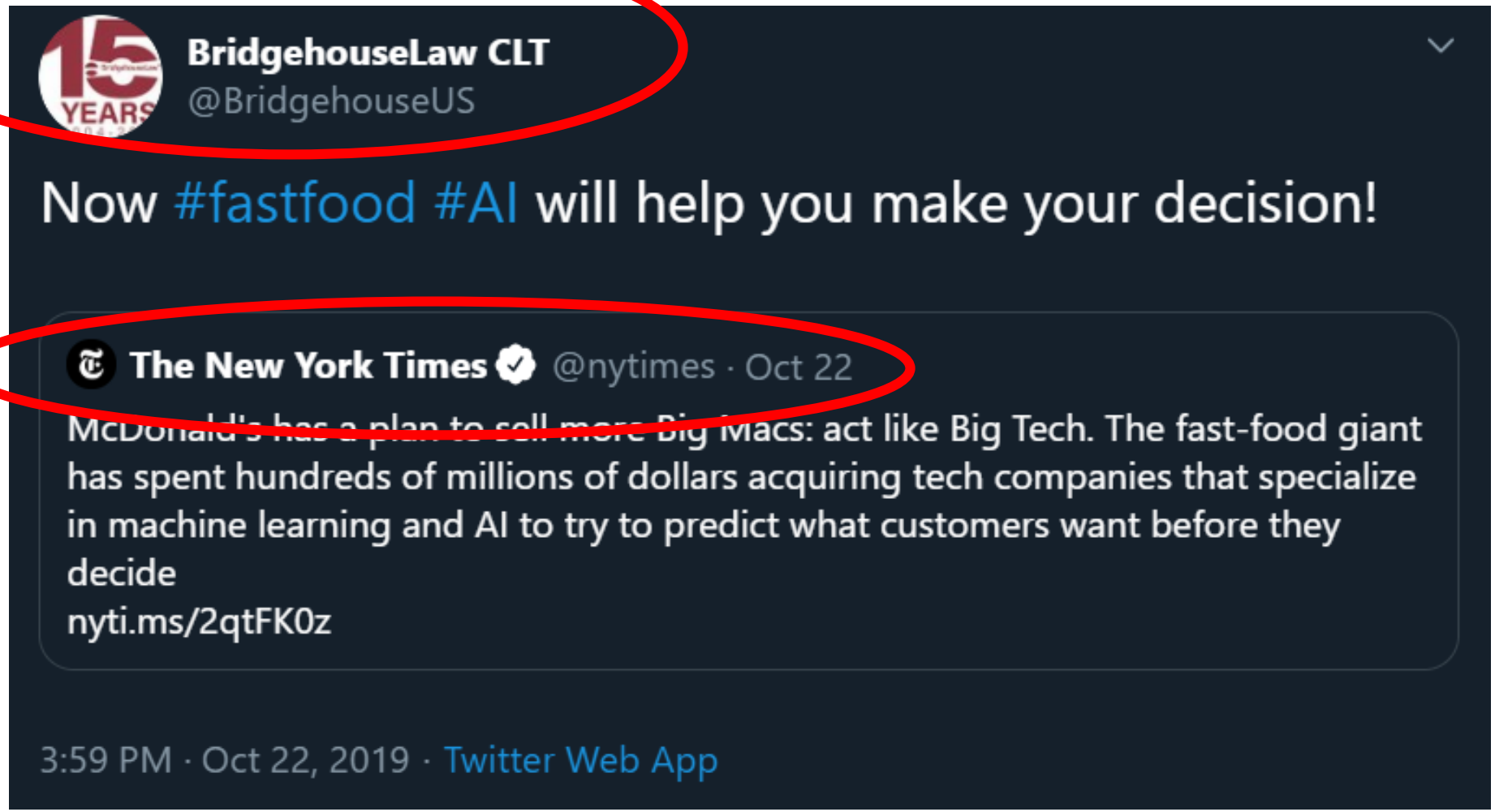

SIGNALS (TAD)

The New York Times

Published Oct. 22, 2019 Updated Oct. 23, 2019

Would You Like Fries With That? McDonald's Already Knows the Answer

The fast-food chain is turning to artificial intelligence and machine learning in the hopes of predicting what customers want before they decide.

the fast-food chain has even established a new tech hub in the heart of Silicon Valley — the McD Tech Labs — where a team of engineers and data scientists is working on voice-recognition software.

At some stores, Bluetooth devices now track shoppers' movements, allowing

they are away from their computers.

Tags: Applied Analytics/AI; Customer Journey
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SIGNALS – APPLIED ANALYTICS – CUSTOMER JOURNEY

Uncertainty Applied Analytics – AI – Journeys

- ❑ Data & Analytics Capabilities – Talent & Partnerships
- ❑ Data-driven Experiences
  Creepy vs Compelling Line (Customer)

Tags: Analytics; AI; NLP
https://www.diigo.com/user/garrygolden/NLP

SIGNALS – MFG VALUE CHAIN (PAUL)

Forbes

4,622 views | Sep 17, 2019, 12:26pm

Blueprint For Industry 4.0: What Manufacturers Must Do Today

Anna-Katrina Shedletsky Senior Contributor ⓘ
Manufacturing

Tags: Analytics; Manufacturing; Materials
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SIGNALS – MACRO ECONOMICS (CHIP)

npr WNYC

75 Years Ago The U.S. Dollar Became The World's Currency. Will That Last?

July 30, 2019 · 6:30 AM ET

CNBC

Facebook's libra may not be approved, but one expert says it could spur the creation of another global digital currency

Facebook's libra may not be approved, but the chances of a different digital global currency being created are now higher, the president of a ...

11 hours ago

Tags: Economics; Macro; Geopolitics; Crypto

SIGNALS – AGING DEMOGRAPHCIS (DEVIN)

journal sentinel
PART OF THE USA TODAY NETWORK

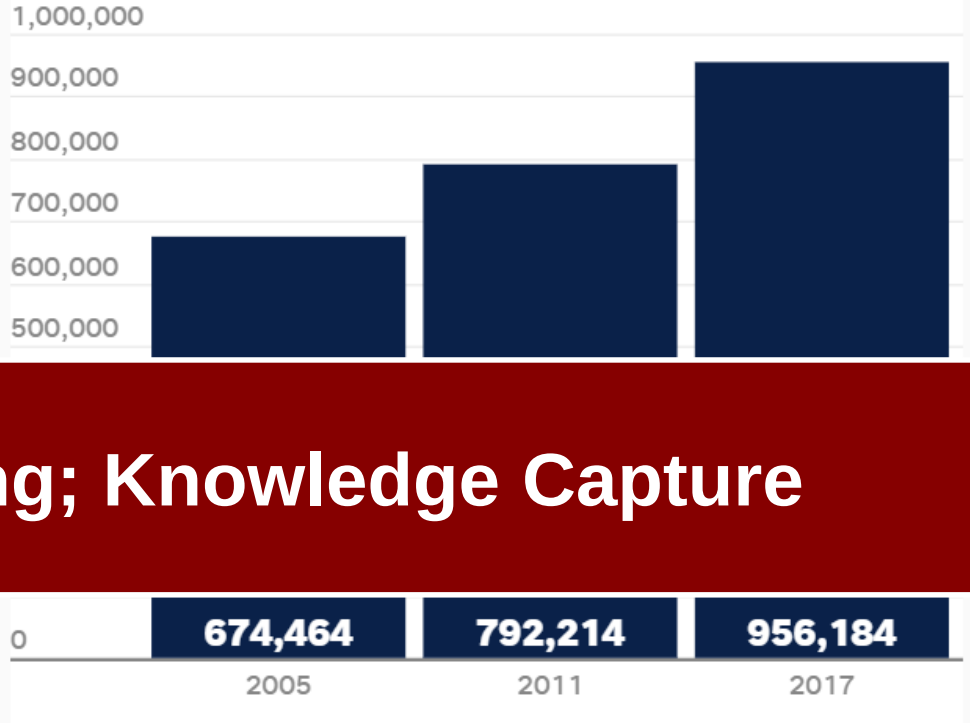
Wisconsin's aging workforce threatens the state's economic vitality, but there are solutions available

Joe Peterangelo Published 6:00 a.m. CT Oct. 17, 2019 | **Updated 9:41 a.m. CT Oct. 17, 2019**

Wisconsin's potential labor pool declines shown as percentage change in state's working-age population (ages 18-64)

Source: Wisconsin Policy Forum/U.S. Census Bureau – American Community Survey

Wisconsin's population, ages 65 and older



Tags: Aging; Workforce; Training; Knowledge Capture

SIGNALS – ECON PRESSURE + SOCIAL ENGR (MIKE HOGAN)

"…the article as an illustration of economic mind fields that businesses have to deal with."

FOX NEWS channel

CALIFORNIA · **Published** 3 days ago

San Francisco puts 22 states on blacklist for restrictive abortion laws

Forbes

Social Credit Scoring In China Extends To Foreign Businesses, Creates New Risks

China's social credit system of scoring Chinese citizens on a code of ...
"Foreign companies will have to decide whether it is worth the risk to sell ...
2 weeks ago

South China Morning Post

Why US businesses should worry about China's corporate social credit system

Tags: Politics; Polarization; Policy; Values (Across Spectrum) Corporate (Shareholder to Stakeholder)

SIGNALS (MIKE HABERLE)

THOMAS

Additive Manufacturing / 3D Manufacturing

NASA Finds Partner for 3D-printed Rocket Engine

Jeff Reinke | Oct 24, 2019 | Share:

The use of additive manufacturing is seen as a way to reduce production costs and offer a more scalable thrust chamber that can be used for a wider array of mission types. The project will call upon a number of 3D printing technologies, including solid-state and laser deposition, to speed up fabrication of these complicated parts.

The scalability will help ensure that the cost benefits are realized on propulsion systems that will range in size from those capable of supporting a lunar lander to larger boosters used to launch spacecraft beyond the earth's gravitational pull. The triple threat of cost savings, production efficiency, and modular scalability are seen as critical factors in

Tags: Manufacturing; Supply Chain; Logistics; Managed Services Biz Models

SIGNALS – EMPOWERED CITIES (JEFF M.)

INTERESTING ENGINEERING

The Technologies Building The Smart Cities of The Future

By Susan Fourtané

December 03, 2018

From AI robocops to flying vehicles to the blockchain, the technologies that once were science fiction are now shaping the smart cities of the future.

Tags: Cities; Smart; IoT; Edge; Analytics; Place; Ethics; Community

SIGNALS – TRANSPORTATION (JEFF S)

yahoo! finance

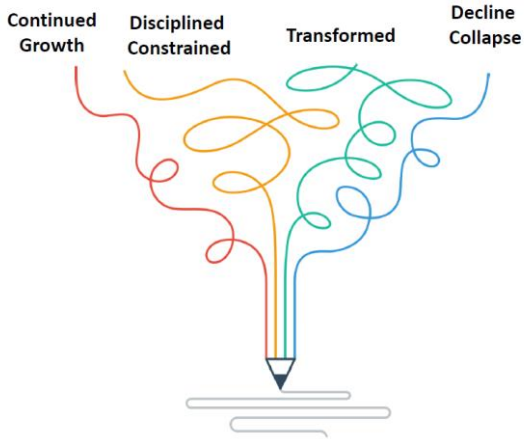
Another aluminum-air battery promises 1,500 miles of range from a charge

Jonathon Ramsey

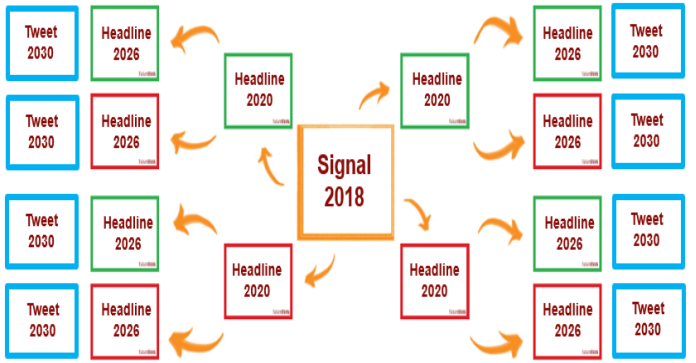
Autoblog October 22, 2019

Tags: Transportation; EVs (BEV; FCEV); Workforce; Infrastructure

TURNING SIGNALS INTO STORIES



Four Futures



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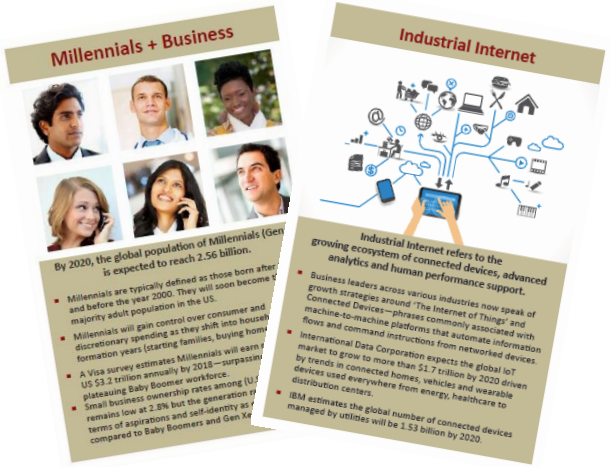

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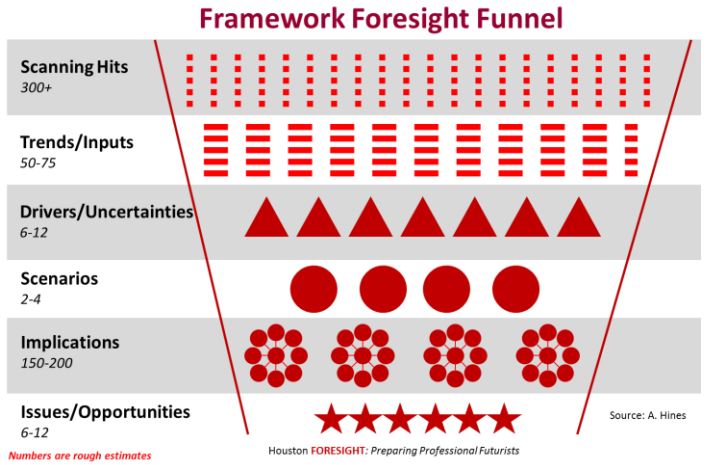


Framework Forecast

FOUR FUTURES THINKING

?

Continued Growth

Peabody ENERGY

Microsoft

2008 – 2014

Disciplined Constrained

IBM

Transformed

BlackBerry

NOKIA

Decline Collapse

DRAFTING YOUR FOUR FUTURES

Continued Growth

Disciplined Constrained

Transformed

Decline Collapse

TASK: DRAFTING NOTES FOUR FUTURES

The original model was developed and popularized by Professor Jim Dator at the University of Hawaii-Monoa Futures Studies program. While the framework has been used for years in the foresight community it was most recently codified in the Journal of Futures Studies, 2009.

DRAFT NOTES: CONTINUATION

?

Continuation is story based on signals that reflect *known knowns* and extrapolation of generally positive **forces**. **This scenario may be viewed as the 'baseline' (extrapolation) or 'official future' which reflect the shared (often unspoken) assumptions of an organization.**

When you create the Continuation story it should include

- ❑ Familiar stakeholders and partnerships
- ❑ Policies, services & value offerings, and customer (citizen) needs
- ❑ How you overcame new twists & turns along the way

The story should include challenges of new social norms and market dynamics but inevitably reveal how your organization leverages its core capabilities and 'rides the wave' of change.

DRAFT NOTES: DISCIPLINED/CONSTRAINED

Peabody ENERGY

Microsoft

2008 – 2014

Disciplined/Constrained is a story of the future where your organization continues to operate in a traditional manner despite evidence that the world around you has shifted. Key organizational challenges are maintaining relevance and returning to growth.

When you create the Disciplined/Constrained story be sure to reveal:

- ❑Signals that suggest your current services and value offerings are less relevant or aligned to market and client needs.
- ❑Signals that challenge organizational culture or processes.

The story might surface how the organization's inability or refusal to change has hit a 'limits to growth' phase. The story's tone is not fatalistic but morale and expectations for growth are muted. You will survive but not thrive.

DRAFT NOTES: TRANSFORMED

Transformed is a scenario archetype where the world and organization have gone through an era-step change. Think caterpillar to butterfly – or Industrial to Information Economy.

The story should reveal how the organization (region) became something different. This may be the emergence of a new department or team. Or it might be a wholesale reinvention of the entire organization culture or value proposition.

The story tone is not utopian. There should be new problems and challenges that appear as expected – or as unintended consequences. Leave some issues unresolved.

The key story dynamic should show how the organization is empowered and feels in control of its future in this new world.

DRAFT NOTES: DECLINE / COLLAPSE

Decline/Collapse is a scenario archetype where the world has changed and your company has not.

The Collapse Story connects signals that suggest:

- ❑ Your imminent demise (e.g. Shut down firm; Merger)
- ❑ An End of Growth (A Burning Platform)
- ❑ Stagnation is challenging **your culture**

When you create the Decline/Collapse story be sure to describe both external conditions (outside-in changes) and internal actions (inside-out changes).

You might also emphasize inactions or decisions not made. The story may describe innovative efforts that failed and did not succeed as you attempted to transform the organization.

TIPS: STORYTELLING

Experiment with Story Structures

- ❑ Multi-paragraph stories
- ❑ Bullet points of storyline elements
- ❑ Visualizations that communication the message

STEEP Forces of Change

Each scenario should include elements of the STEEP categories of change:

- ❑ Society (Demographics / Culture)
- ❑ Technology
- ❑ Economy
- ❑ Environment
- ❑ Politics (Legal)

Three Mechanisms of Change

Your scenarios should include:

1) Trends

Slow moving changes over time;
Language should be 'more' or 'less'

2) Events

Sources of discontinuity including:
Scheduled Events
Plausible Events
Wildcard Events (Low Probability, High Impact)

3) Choices

Reflect our investments in people, partnerships and places.

TEAM CONVERSATION QUESTIONS

When the **Four Futures are** written, you should engage colleagues in answering strategic questions:

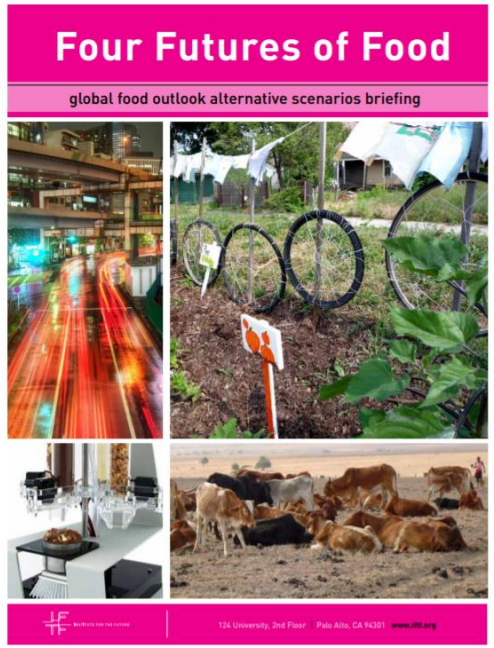
- ❑ What signals or trends have you seen that might support the future described in each scenario?

- ❑ What are the internal implications for our partners and teams?
  What might our customers (citizens) do differently to thrive in this future?

- ❑ Where might the story go from here? Write a few extensions **from** this future.

- ❑ What indicators or milestones might we monitor that represent a tipping point of this future?

EXAMPLES



ALTERNATIVE FUTURES SCENARIOS

Growth, constraint, collapse, and transformation are four distinct but plausible directions of change identified by Jim Dator, director of the Hawaii Research Center of Futures Studies, in his work on alternative futures scenarios.

GROWTH: current trends and conditions, both good and bad, continue to grow as they have in the past.

CONSTRAINT: society, either led by governments or grassroots efforts, takes austerity measures to constrain the behavior of groups of people or individuals.

COLLAPSE: change in which major social systems are strained beyond the breaking point, causing system collapse and social disarray.

TRANSFORMATION: fundamental transformation of a society or system that signals a break from previous systems.

While linear growth represents one potential shape of the future, we can learn from recent history that constraint, collapse, and transformation are other ways of thinking about how change can occur. For example, China averted an infrastructure breakdown by **constraining** population growth with its one-child policy. Western housing and financial markets **collapsed,** surprising those who assumed past trends would continue. And the Internet and, more recently, social media, **transformed** the way the world communicates information—leaving traditional media outlets scrambling to adapt.

We can also find examples of these four directions of change in the global food web's history:

Source: Flickr user Paco Calvino

GROWTH: In the early 1970s, the United States Department of Agriculture adopted policies that encouraged farmers to produce as much food as their land could bear. This reversed decades of government caps on production. The ensuing growth in the availability of commodity crops like corn helped bring down the prices of animal feed, and ushered in a boom in meat consumption. Throughout the world, obesity has increased dramatically, while the number of people who go hungry recently passed the ominous milestone of one billion globally.

Source: Library of Congress

CONSTRAINT: The chaos and violence of World War II brought with it widespread interruptions to food supplies as part of coordinated efforts to use hunger for military advantage. To manage this challenge, countries including the United Kingdom and United States imposed rationing systems to keep food prices in check, ensure equitable distribution of food supplies, and mitigate the threat of widespread starvation.

Source: State Library of New South Wales

COLLAPSE: The Dust Bowl of the 1930s resulted in a collapse in food supplies. After years of wet—and productive—weather, plains states and provinces in the United States and Canada were hit with a severe drought. This, along with problematic farming practices, saw fertile soil give way to dust, which displaced millions of people and led to widespread poverty and hunger. Today, fisheries worldwide are facing various degrees of collapse.

Source: Flickr user Vanessa Stewart

TRANSFORMATION: In the past few decades, refrigeration has paved the way for stable food storage, ready-to-eat meals, and massive global trade in perishable fruits, vegetables, and meats. In turn, this new technology has fundamentally reshaped our relationships with food, and with each other. Family members can individually heat up their own dinners; meals can even be eaten alone in cars. Refrigeration has also enabled a globalization of taste. For example, sushi can be bought all over the world—even in places thousands of miles from a source of fresh fish.

Alternative futures scenarios based on these directions of change—growth, constraint, collapse, and transformation—provide a useful framework for considering the future of the global food web and how finding, buying, and consuming food might evolve in the next decade.

GROWTH

WELL-BEING IS PRODUCTIVITY

and more choice increases experiential well-being

SCENARIO DYNAMICS

- Economic growth occurs in localized booms and busts.
- GDP and economic growth paradigms remain dominant.
- Global consumption increases.
- Rich-poor gap grows.
- Innovations in science, finance, and markets are siloed.

KEY VALUES

- Financial and material expansion
- Personal responsibility
- Productivity
- Material comfort
- Opportunity and liberty

The economy continues to struggle and businesses reposition themselves in an increasingly crowded well-being marketplace. The expansion of well-being choices and the challenges of aging and chronic illness spur people to see health as a core component of every choice. Health becomes increasingly valued but also increasingly hard to attain.

Health remains primarily a personal responsibility—one beyond the capabilities of people on shaky financial ground. While wealth and technology expand the well-being options for a growing upper-middle class in global economies such as China, Brazil, and India, changes to diet and lifestyle also lead to increases in obesity and chronic illness. Growing disparities in wealth mean that the poorest have even less access to basic health inputs.

The marketplace further complicates simple decisions, adding new information literacies to everyday life. With so many technology-laden, connected experiences—from cars to food to clothing—reorienting around health and well-being, consumers gravitate toward products that provide immediate benefits, even if those products do little to improve (and may even harm) health in the long run.

bodies

Expanding Markets
Well-being markets grow as people purchase products and services based on their touted health benefits.

Creature Comforts
People pay more attention to material contributions to physical and mental health, seeing comfort and tangible near-term benefits as cornerstones of well-being.

Producing the Self
Well-being consumption becomes the means of gaining a competitive edge and refining an ever more augmented and productive body and self-image.

networks

Widespread Inequality
Well-being inequity increases, and while the more affluent use their networks to expand their global options, everyone else navigates a landscape of expanded risk.

New Authorities
Abundant, confusing choices drive people to rely on new well-being authorities—with or without formal qualifications—to vet efficacy claims.

Commercialized Networks
More networks are organized around commercial services and become key resources for innovation in financing, services, and product marketing.

environments

Stressful Choices
The health decision-making environment, full of complexity and contradictions, is a major source of stress in everyday life.

Green Health Economy
Green values inform people's understanding of well-being and result in price increases for organic and other sustainably produced goods.

Diverging Growth Strategies
Increasing numbers of communities sacrifice local well-being resources and long-term sustainability in pursuit of short-term growth.

signals

Whole Foods is opening members-only "wellness clubs" to promote healthy eating and further expand its reach into health and well-being.

source: Whole Foods and PFSK

Nissan is redesigning cars to build in health features such as seats that enhance blood flow and air vents that release Vitamin C.

source: Nissan

CONSTRAINT

WELL-BEING IS COMMUNITY

and taking care of others increases personal well-being

SCENARIO DYNAMICS

- Economic indicators remain weak and experimentation with local currencies rises.
- Priorities shift from economic growth to maintaining stability and comfort.
- Sustainability paradigms dominate market and policy activity.
- Policies, limits, and quotas reinforce restraint and optimization.
- Games and participatory monitoring connect actions to environmental effects.

KEY VALUES

- Environmental awareness
- Personal, household, and community restraint
- Stability and aversion to change
- Prevention and optimization
- Making difficult trade-offs

In a world where resource constraints—in domains such as energy and potable water—place practical limits on everyday life, new practices to optimize well-being increasingly focus on maintaining stability and stretching scarce resources. As sharing of resources and knowledge grows, the community leaps to the forefront of well-being.

Restraint and frugality are grudgingly accepted as virtues. Recognizing limits contributes to a shift in values surrounding longevity, as palliative care is seen as increasingly central to medicine. Creativity, happiness, and personally optimized well-being become major priorities for people and governments.

Environmental objections to the pharmaceutical and hospital industries lead people to avoid them whenever possible, and food becomes the favored pathway to health and well-being.

High unemployment persists, engendering small-scale experiments that redefine the meaning and nature of work. Communities explore ways to exchange value through local currencies and networks of social production. People who cannot afford the medical care they need start skipping routine care and simple interventions, in effect making cancers and other diseases far more deadly.

bodies

Changing Behaviors
Widespread behavior change efforts focus on reducing energy, water, and medical resource use.

Optimized Healthspans
People accept the limits of medicine, living with trade-offs in managing chronic conditions and fundamentally shifting their attitudes toward end-of-life and palliative care.

Transition Anxieties
The difficulty of accepting resource and other limits leads to increased levels of anxiety, depression, and other mental health challenges.

networks

Participatory Well-being
Well-being shifts from a largely individual to a largely communal pursuit as people cultivate social connections and are mindful of their impact on the commons.

Social Priorities
People rely more on sharing and commons-based action, and less on market sustainability offerings, to stretch well-being resources and reduce spending.

Sharing for Care
Both medical care delivery and scientific research production are increasingly based on sharing resources, personal data, and health experience.

environments

Risk and Resource Transparency
Participatory mapping reveals environmental risks and underutilized resources, and mitigates resource-based health challenges.

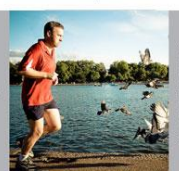
Local Resilience
Environmental constraints and the quest for local resilience drive localization of food and manufacturing supply chains as well as an expansion of good-Samaritan training initiatives.

Mandatory Green Health
The medical industry is forced to adopt greener practices, from super-efficient building retrofits to avoiding single-use plastics and other resource-intensive products.

signals

Fireside is a Chicago restaurant that started accepting bartered goods and services for food.

source: Fireside Chicago



SeeChange Health Insurance Company issues Park Prescriptions, a program of reimbursements for state park memberships.

source: SeeChange Health and Flickr user Miguel77

COLLAPSE

WELL-BEING IS SECURITY

and escape from real and perceived threats

SCENARIO DYNAMICS

- Local and regional collapses begin to interconnect and cascade.
- Social, environmental, and financial resources dwindle.
- Public and private bankruptcies drive economic dislocation.
- Low-transparency monitoring maintains security.
- Hoarding, shadow economies, and luxury markets take hold.

KEY VALUES

- Safety and risk avoidance
- Family integrity
- Opportunism
- Keeping up appearances
- Competition for resources

While natural and human disasters devastate many regions, the resources that produce good health—from housing security to access to nutritious foods to social cohesion—are decimated everywhere. Many cities, states, nations, and private enterprises fall into bankruptcy. Many more industries—including health care—consolidate, reducing people's choices; large surviving organizations are not responsive to radically diverse needs in different localities. Trust in institutions is at an all-time low, with corruption, stockpiling, and counterfeiting becoming ubiquitous.

In the face of widespread scarcity and hoarding, violence and organized crime increase. People retreat into securing basic needs and safety for themselves and their families, and look for well-being in any temporary peace of mind. Social pressure and people's desires to escape from harsh realities become vital pillars of formal and informal economies. Luxury markets persist as the gap between rich and poor grows wider, and those who can afford it use private supply networks to obtain luxury foods and medical necessities. Regional disparities spur migration and medical tourism—though well-off communities seek to exclude outsiders.

bodies

Trauma of Uncertainty
Constant uncertainty and a lack of steady access to basic resources leaves biological imprints of stress and anxiety on large numbers of people.

Safety First
People adopt self-quarantining strategies and manage their health by avoiding unsafe food and health products.

Mobile Information
Dependence on—and cost of access to—digital health records accelerates as natural disasters destroy paper records.

networks

Tight-knit Networks
People are more reliant on close circles of friends and family, and trust becomes a highly valued resource, in part because denial and deceit are widespread.

DIY Medicine
Do-it-yourself medicine websites stand in for overwhelmed hospitals, and folk medicine propagates as people form ad hoc networks to share health knowledge.

Mobile Health Access
Mobile health and wellness services—run off personal devices, kiosks, and retrofitted vehicles—are increasingly common in neighborhoods of all economic classes.

environments

Ecological Disruptions
Extreme weather and natural disasters force people to migrate and increase the threats of infectious disease, leading to vicious immigration debates and futile quarantine attempts.

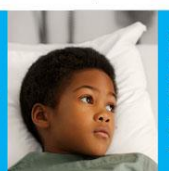
Well-being Enclaves
Oases of well-being, areas still rich in financial or health resources, seek to protect their benefits from the less fortunate.

Tough Choices
Communities are forced to choose between spending on long-term health or on security and emergency recovery, as hospitals decide whether or not to maintain public safety-net programs.

signals

A coalition of doctors has run pilot projects in Haiti with the iChart iPhone app, in hopes of developing an international standard for electronic medical records in disaster situations.

source: PAMF and the U.S. Army



A recent University of Wisconsin study suggests that temperature increases could lead to spikes in diabetes and other diseases—with the potential risks being distributed disproportionately to the very old and young.

source: news.wisc.edu/19494

TRANSFORMATION

WELL-BEING IS ECOLOGICAL

and collaboration builds capacities for holistic well-being

SCENARIO DYNAMICS

- Social production transforms traditional organizations.
- Participation shapes economic activity.
- Governance, manufacturing, and services follow small-scale, distributed models.
- Bio-based innovation and ecological management paradigms gain visibility.
- Open work networks and crowd-sourced unbundled tasks.

KEY VALUES

- Holistic perspectives
- Local resilience
- Reciprocity and openness
- Sincerity and accountability
- Sustainability and resource renewal

People are increasingly creating well-being in a systematic way—from the molecular to the planetary scale. They organize themselves in fundamentally new ways to create resilience in local communities—and connection to global processes. Well-being is about feeling aligned at all scales with a world in the process of healing itself.

Some individuals and institutions struggle to maintain the status quo. While governments, NGOs, and corporations increasingly strive to assign accurate values to personal and environmental contributions, others still work to externalize costs and tightly control assets. Monetary incentives to treat symptoms of illness in perpetuity are under fire as players shift to delivering appropriate and accountable care. A growing number focus onroot causes, offering personalized windows into—and services for tinkering with—individual epigenetic processes.

Self-care and formal medicine focus on teaching skills to help people interpret personal data and navigate their environments, while city environments and food systems are rebuilt to provide optimal well-being. Localized models of micro-employment and on-site service provision ensure a high-participation economy.

bodies

High-resolution Bodies
The majority of people have at least some access to high-resolution views of their genetics, epigenetics, and chronobiologies, giving them detailed perspectives of their personal risks and assets.

Integrated Care
Systemic understandings of how bodies fit into surroundings spur a move from biomedical definitions of health to more holistic, integrated visions of care.

Biological Uncertainty
Formal professionals and informally educated gurus emerge to help people make sense of the high-resolution details of their bodies.

networks

Contagion Health
Most people are aware of the effect of friends, neighbors, and acquaintances on well-being, and some individuals and communities become scapegoats for social and ecological imbalances.

Sharing as Caring
People protect themselves from stressful events and information anxiety by sharing their well-being observations with larger support and research communities.

Networked Medicine
The role of medical institutions shifts from treating individuals to convening networks of people with common social, health, and biological traits to care for and support each other.

environments

Resource Footprints
People are more attuned to the idea that everything has an effect on large and small scales, and attempt to preserve and renew local watersheds, soils, and food varieties.

Ecological Design
Ecological thinking becomes central to engineering and design, and rooms, buildings, and even whole cities are retrofitted to keep temperature and humidity at beneficial levels.

Living Assets
Recognizing the assets already in the environment, facilities of all kinds—but especially medical facilities—start integrating life forms, including beneficial microbes, rather than pursuing sterile environments.

signals

BioCurious is a coalition of graduate students and amateur scientists trying to democratize genetics and biotech research.

source: BioCurious via Kickstarter

The Biology and Built Environment Center at the University of Oregon explores the "built environment microbiome" and its interactions with human health and sustainable architecture.

source: biobe.uoregon.edu

TOOL : FORCE FIELD ANALYSIS (PUSH/PULL)

Scenario Name

Restraining Forces (Pulling You Away)

Driving Forces (Pushing Toward Scenario)

- 10	- 5	- 1	Force	+1	+5	+10
- 10	- 5	- 1	Force	+1	+5	+10
- 10	- 5	- 1	Force	+1	+5	+10
- 10	- 5	- 1	Force	+1	+5	+10

QUESTIONS? DISCUSSION

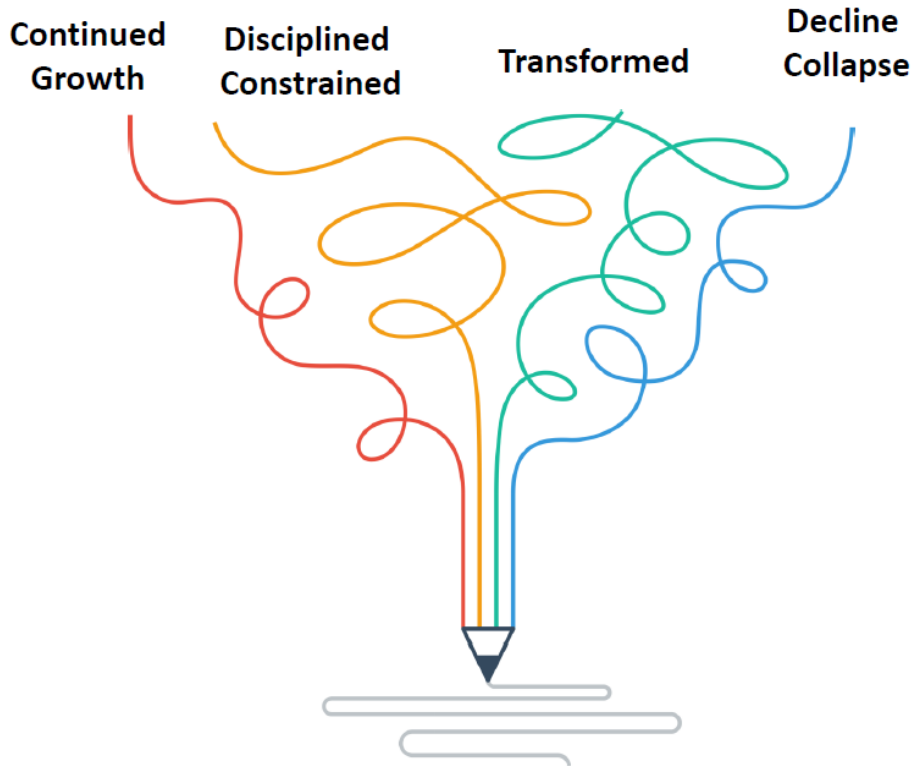
Discussion

Thoughts on value and application for Foresight Efforts?

- ❑ Four Futures for whom? (Org vs Unit)
- ❑ Story Format
- ❑ Who leads /owns process?

Draft Deadlines – Nov 18th

- ❑ Bullet point format of Four Futures for your organization by November 18th



Four Futures

Turning Signals into Stories

Trend Cards

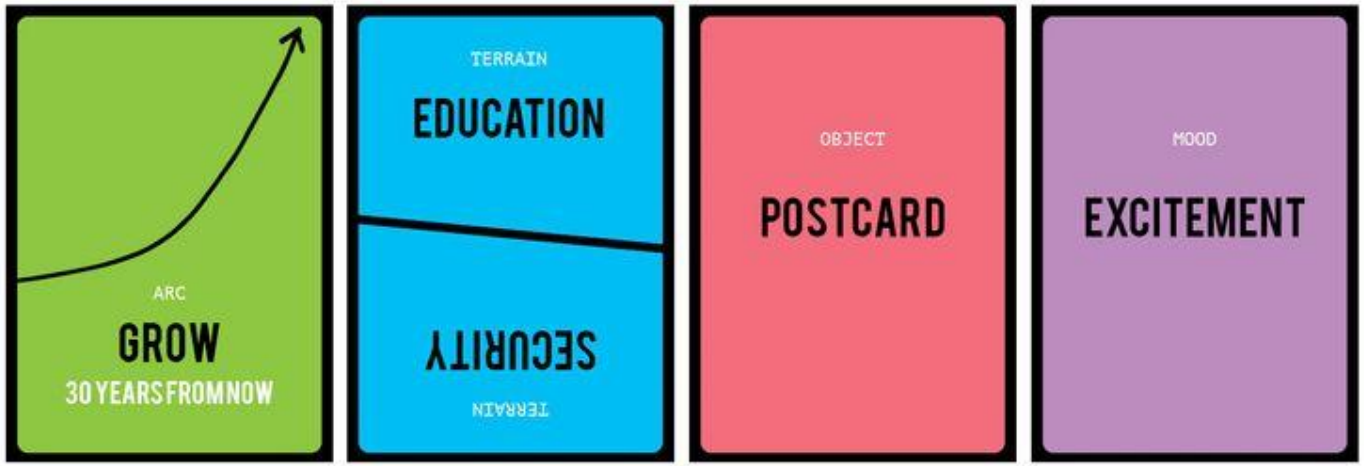
Created via

Desktop Research + Signals

Trend Cards (Scenario Cards) as Products

IDEO ARUP

Arc = Grow, 30 years from now
Terrain = Education
Object = Postcard
Mood = Excitement



OCAD: The Thing from the Future

Product: Synthesize Signals into a Deck of Trend Cards

Trend Card Elements

Title (Theme/Trend)

Image

Overview:
Data Points
Key Questions

Set of Signals

PowerPoint

Millennials Grow Up

By 2020, the global population of Millennials (Gen Y) is expected to reach 2.56 billion.

- Millennials are typically defined as those born after 1980 and before the year 2000. They will soon become the majority adult population in the US.
- This cohort makes up 25% of the global population; 37% of Millennials will live in India and China.
- Millennials will gain control over consumer and discretionary spending as they shift into household formation years (starting families, buying homes, etc.).
- A Visa survey estimates Millennials will earn more than US $3.2 trillion annually by 2018—surpassing earnings of plateauing Baby Boomer workforce.

Opportunity Examples:

Aligning with Values + Personal Growth:

- Millennials connect with brands that support social values similar to their own such as diversity and environmental and social responsibility.
- A PwC survey found 57% of Millennials agreed: "access is the new ownership". Many Millennials participate in the 'sharing' and 'on-demand' economy, using services that allow individuals to borrow or re-use things like cars (Uber; Turo), rooms (AirBnB) or clothes (ThredUp; RentRunway).
- Millennials seek out development opportunities. A Deloitte survey found 28% of Millennials feel their current organization is making full use of their skills. More than 53% aspire to become the leader or senior most executive within their current organization.

Connecting via Big & Small Social Media:

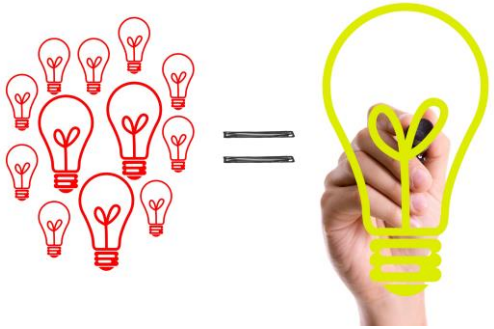
- Millennials will continue to use social media as they grow up, join the workforce, and start families of their own. The advertising sensation of the 'Old Spice Guy' campaign was successful largely because of a social media reinforcement strategy that allowed the Millennial audience to push the brand message among friends.
- Many brands see the upside of niche social sites (e.g. 'MommyBlogs', Beauty Vloggers) that appear more peer-based and authentic to Millennial audiences.

Activity: Trend Card Poker

Guides Internal Teams (or Clients) in Exploring Alternative Futures for your sector

Output: Generate Ideas that Solve Problems + Transform the Region

Teams Given Combination of Trend Cards



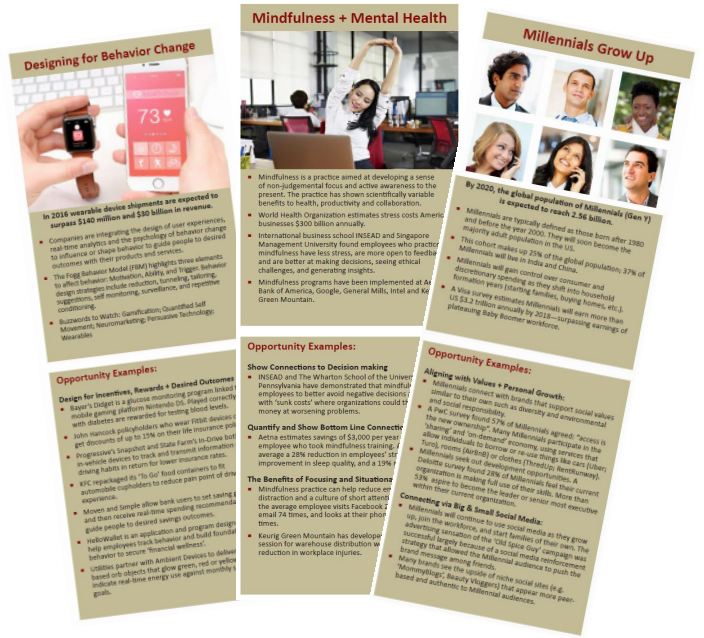
Discussion + Capture on Implications Of Converging Trends

Teams Develop ‘Shark Tank’ Pitches on Ideas that Respond to Scenario Conditions

Discussion

Thoughts on value and application for your Foresight Efforts?

- ❑ How many / which trends?
- ❑ Update schedule
- ❑ BACC-led or DIY



NEXT FEW WEEKS

ASAP

Schedule 1-1

Call w/ Garry

Era Analysis

By Nov 18th

Complete Draft (Bullet Point) of Your Org's Four Futures

TBD

Complete a Futures Wheel