

Foresight Analysis

# The Art & Science of Looking at the Future



Bay Area Community Council

Facilitator

**Foresight Webinar #3** Garry Golden

November 22, 2019

# OCTOBER – DECEMBER

October 4<sup>th</sup>

Scanning for Signals  
(Framework Forecasting)

October 25<sup>th</sup>

Turning Signals  
into Stories

November 22<sup>nd</sup>

**Futures Wheel**  
**T-Shaped Talent**

December 12<sup>th</sup>

**Leading Change**  
**& Presentations**



**Docs: <http://www.garrygolden.com/BACC2019/>**

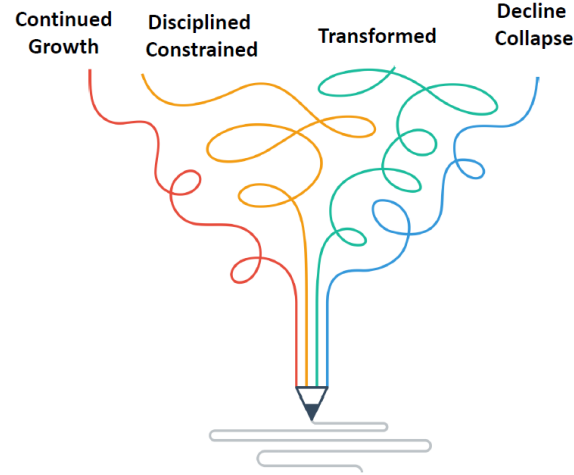
# PREPARING FOR DECEMBER 12<sup>th</sup>

**5 min**



**Foresight  
Journey**

**5 min**



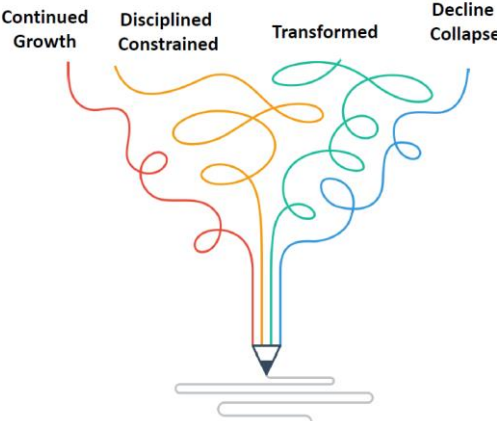
**Transformed  
Scenario**

**~5 min**

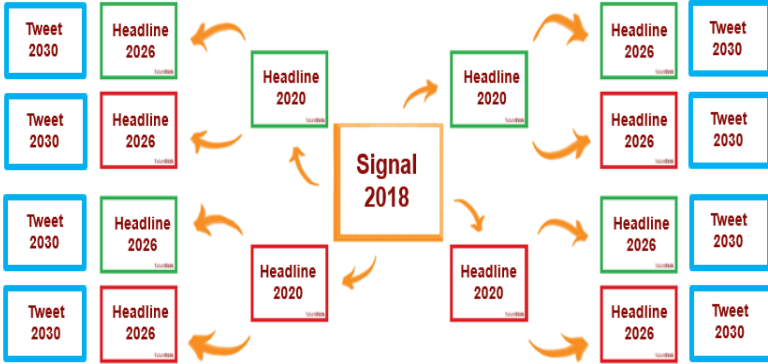


**Talent for  
Leading Change**

# NOV 22<sup>nd</sup> WEBINAR



**Four Futures**



**Futures Wheel**



**Future of Talent**

# SIGNAL: PEOPLE'S EXPECTATIONS FOR BENEFITS

## Upskilling is the Ultimate Work Perk

Posted by Jason Field | Nov 7, 2019



In the never-ending race to find top talent, recruiters are often faced with a hard truth: job seekers are looking for more than [just the "right" job](#).

That's because the "right" job in today's landscape means more than a reasonable salary and a couple of weeks of vacation. Even extra perks like free snacks, cold brew on tap, ping pong tables, and work lounges are not working to attract potential hires.

### What do they want, anyway?

So, what is it that today's prospective employees are looking for in terms of perks and benefits? According to survey data referenced in a [recent BCG report](#) about the "Reskilling Revolution," upskilling and educational opportunities are higher than ever on job seekers' minds. The study revealed that today's job seekers value learning and training opportunities and career development options more than job security and financial compensation.



COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD

Centre for New Economy and Society Insight Report

# Towards a Reskilling Revolution

## Industry-Led Action for the Future of Work

# SIGNAL: GB CULTURE OF EXPERIENCE GRAPH??

**DEEP DIVE**

## Skills-based hiring will shift the marketplace, experts say

The tech that disrupts also retools



### Self-guided learning

A new paradigm for employers with difficulty filling open positions is a shift to skills-based hiring rather than the credential-based model of the past. Many applicants possess skills that aren't reflected in their work history or educational experience. As more and more workers participate in self-guided learning, the skills-based model will become more relevant.

The *State of American Jobs* report revealed some insight from American workers:

- 87% believe continuous training is important or essential to their continued success;
- 54% believe training and developing new skills throughout their work life is needed to keep up with changes in the workplace and;

# SIGNAL: REMEMBER 'GRADUAL, THEN SUDDEN'

## Continental to cut 5,040 jobs as combustion engine demand falls

2 MIN READ







## Oerlikon AM and Siemens partner to digitalise additive manufacturing

By Molly Burgess | 20 November 2019

**Oerlikon AM, the additive manufacturing unit of technology group Oerlikon, has entered into a strategic agreement with Siemens AG.**

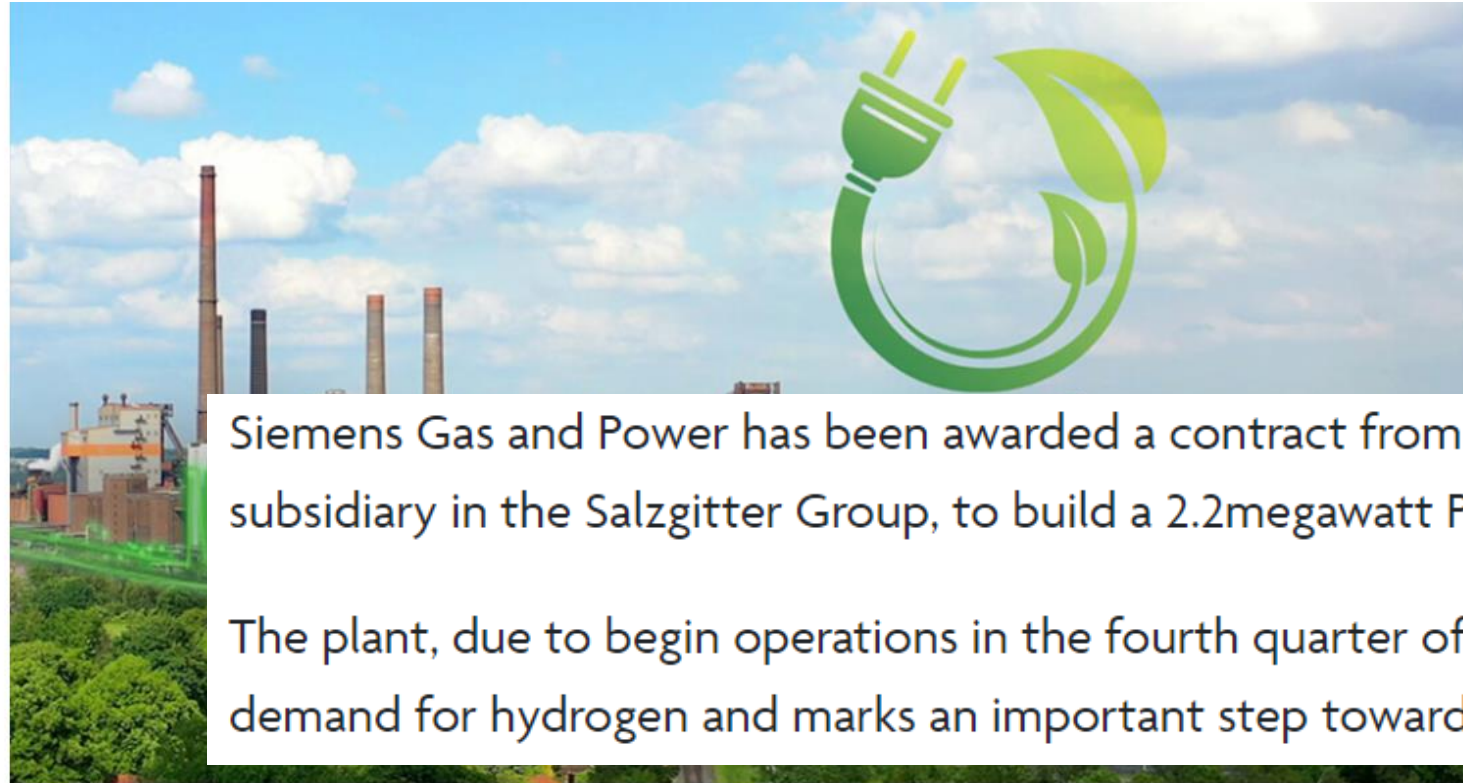
The agreement will see Siemens supply Oerlikon AM with digital enterprise solutions that will help the Switzerland-based company accelerate the industrialisation of additive manufacturing.

The integration of Siemens' digital expertise portfolio in Oerlikon's software landscape in its additive manufacturing and research and development sites will support Oerlikon in actively managing the additive manufacturing process from end to end using one interface.

“At the moment we have a variety of special tools that we use for different steps of the value chain,” said Dr. Sven Hicken, Head of Oerlikon's Additive Manufacturing Business Unit.



# SIGNALS: DECARBONIZING INDUSTRIAL SECTORS



Siemens Gas and Power has been awarded a contract from Salzgitter Flachstahl GmbH (SZFG), a steel subsidiary in the Salzgitter Group, to build a 2.2 megawatt PEM electrolysis plant.

The plant, due to begin operations in the fourth quarter of next year, will cover SZFG's entire current demand for hydrogen and marks an important step towards hydrogen-based steelmaking.

Salzgitter announces hydrogen project for steelmaking

## Vision Inspection Powered by AI

by Gary Mintchell | Nov 8, 2019 | Automation, Technology | 0 comments

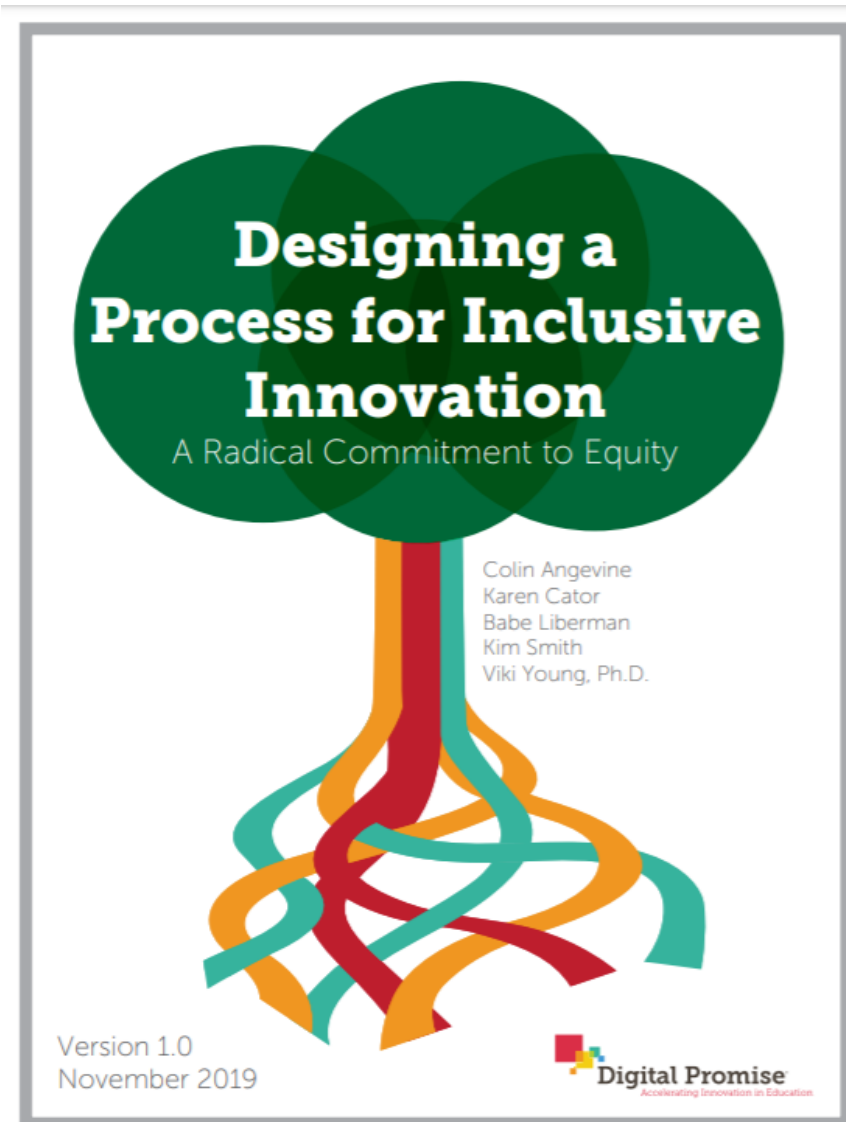
Artificial Intelligence, or AI, is not necessarily the dystopian technology portrayed in books and movies. Although neither artificial or intelligent, AI can be a powerful tool in the engineer's kit.

Recently Carl Palme of Neurala chatted with me introducing the company and what it means by AI in its vision systems. We both have some sheet metal work in our backgrounds, so we found common cause with one of the powerful applications—finding small surface anomalies.

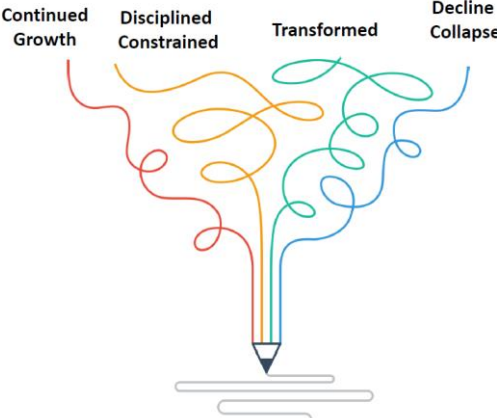
There is also company news. In short:

- [IHI Corporation Selects Neurala to Enable Industrial Visual Inspection and Analysis Powered by AI](#)
- [One of the Largest Global Heavy-Industry Manufacturers Partners With Leader in Automated Visual Inspections to Build Vision AI-Powered Industrial Solutions](#)

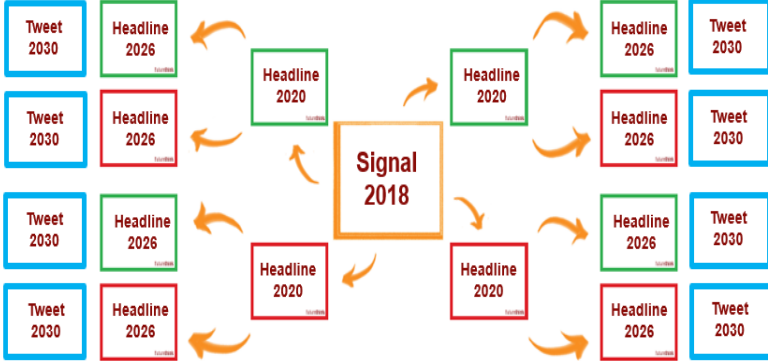
# SIGNALS



# NOV 22<sup>nd</sup> WEBINAR



**Four Futures**



**Futures Wheel**



**Future of Talent**

# DRAFTING YOUR FOUR FUTURES



**Continued  
Growth**



**Disciplined  
Constrained**



**Transformed**



**Decline  
Collapse**

# TIPS: STORYTELLING

## Experiment with Story Structures

- Multi-paragraph stories
- Bullet points of storyline elements
- Visualizations that communicate 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.

# CONVERSATION TOOL: FORCE FIELD ANALYSIS (PUSH/PULL)

Scenario Name



- 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



# THE PRACTICE OF TAKING MENTAL LEAPS

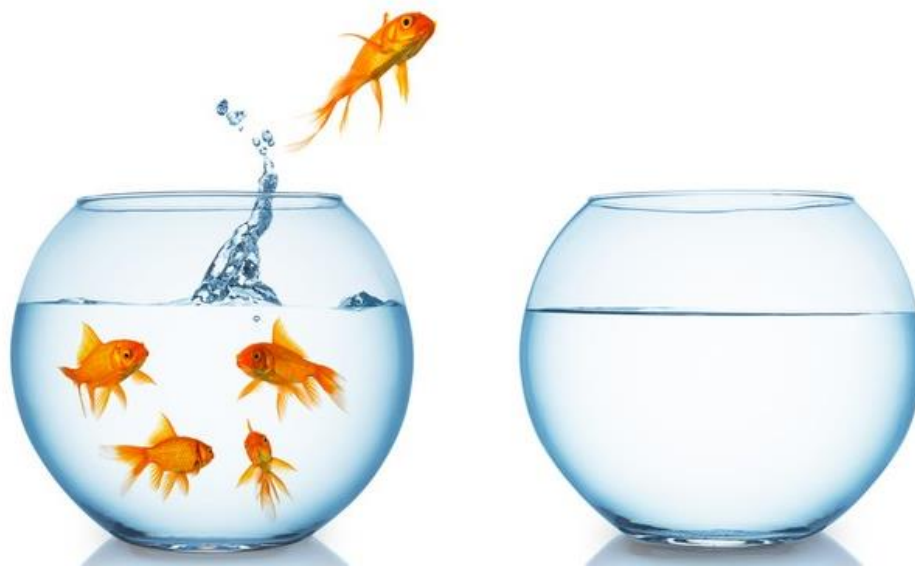
*You can't trust your judgement  
if your imagination is out of focus*

*Mark Twain*

# REAL WORLD EXAMPLES OF MENTAL LEAPS

## News Headlines from...

**2005**  
**World without**  
**Civilian Drones**



**2015**  
**World with**  
**Civilian Drones**

# HEADLINES: NEW MODELS

Amazon provides new details on its plan for a drone superhighway in the sky

By [Ben Popper](#) on July 28, 2015 12:33 pm



# HEADLINES: APPLICATIONS FOR 'GOOD'

## Drones Used to Stop Elephant and Rhino Poachers in Africa

by ELISHA FIELDSTADT



► Drones Used to Battle Rhino Poachers 2:27

f t g+ </>



# HEADLINES: HACKERS



**Business Insider** @businessinsider · 56m

The Connecticut teen who rigged a drone with a handgun has been charged with assault [read.bi/1SFbUYB](https://read.bi/1SFbUYB)

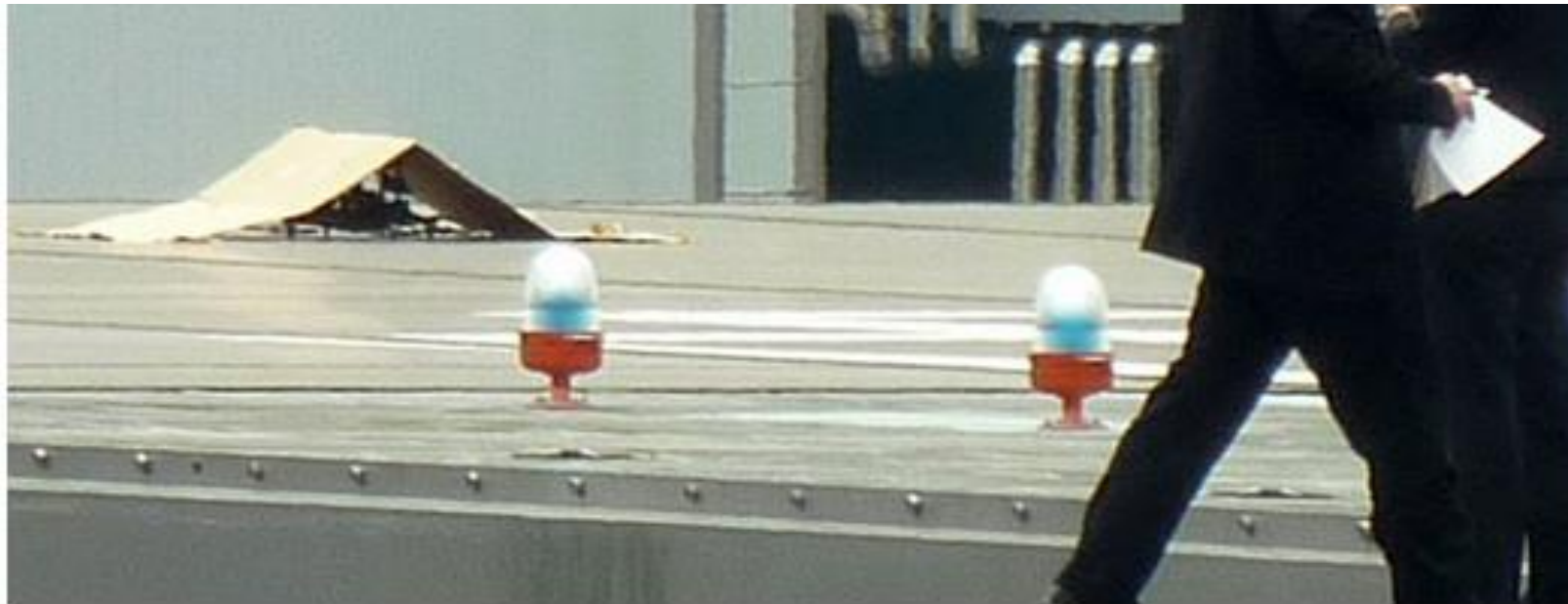


# HEADLINES: SECURITY RISKS

## Arrest after drone with radioactive material lands on Japan PM's rooftop

By Junko Ogura, CNN

🕒 Updated 11:53 PM ET, Fri April 24, 2015



A small drone covered with cardboard is seen on the roof of PM Shinzo Abe's official residence in Tokyo on April 22, 2015.



# HEADLINES: CHEATERS

**Report: FAA probing Cowboys for using drones illegally**





# HEADLINES: ACCIDENTS & LEGAL ISSUES

## TGI Fridays drone delivers bloody 'mistletoe mischief'

Karma Allen | @iam\_karma

Tuesday, 9 Dec 2014 | 12:20 PM ET



Source: TGIF | YouTube

The drones were intended to hover over couples and inspire a little "mobile mistletoe mischief," according to TGI Fridays.

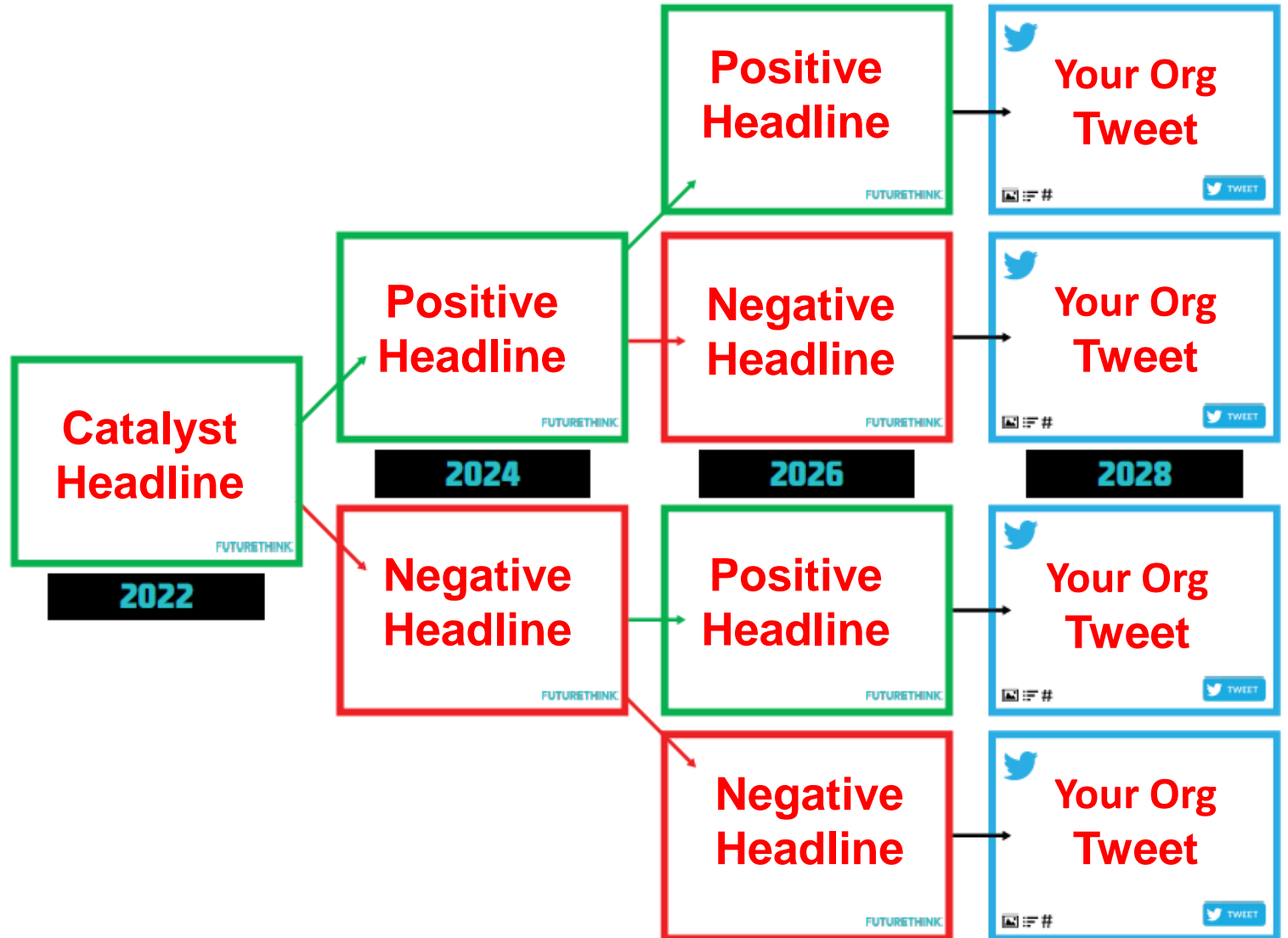
# FULL FUTURES WHEEL



# FUTURES WHEEL: WORKSHEET VERSION

Headlines from Future

Scenario Implications



# TIPS FOR CREATING HEADLINES

## Tips on Creating Headlines

- ❑ Bring it to Life (e.g. familiar people, places and companies)
- ❑ Leap, Don't Tweak
- ❑ *Art of Double Take*

### **Generic**

Traffic accidents down 30%

AI destroying service jobs

Voice search at 80%

### **Bring it to Life**

Nationwide Insurance goes bankrupt

India passes Universal Basic Income Law

Pew Survey: Millennial Parents fear their children won't learn to text

# SIGNAL TO HEADLINE-BASED STORY

**A phone battery that lasts a WEEK is on its way: Smartphone maker signs deal to add tiny hydrogen fuel cells to handsets**

- Hydrogen-powered cell can give handsets up to a seven-day battery life
- It is so thin it fits inside current handsets without making them bulkier
- Fuel cell contains a battery that creates energy from hydrogen and oxygen
- Intelligent Energy has previously tested the technology on the [iPhone 6](#)

Idea: Refueling not Recharging Your Portable Electronics

# MENTAL LEAPS AS HEADLINES



**China Moves  
Beyond Battery**

2022



**Big Tech Buys into  
Portable Power**

2025



**Unplugging at  
Burning Man**



2028



**Texas Builds Homes  
Without Wall Sockets**



**Amazon Plans to be  
#1 Fuel Distributor**

2030





**California Issues 'Captain' License for 12 Year Olds to Operate Waymo Cars**  
FUTURETHINK

**2024**

**More Congestions: So-Long Smart Phones: Youth Culture Falls back in love with automobile culture**  
FUTURETHINK

**2026**

**Tesla Sales Plummet as Waymo Brand Rises to Top**  
TWITTER

**2028**

**California Permits Sales of Self-driving Waymo Cars**  
FUTURETHINK

**2022**

**SIGNAL OF CHANGE**



**Teen Hacker Group Attack Waymo Cars: Shut Down Major Highway**  
FUTURETHINK

**California mandates centralized 'kill switch' to shut down hacker interference**  
FUTURETHINK

**Waymo Sales Increase due to Enhanced Safety Features**  
TWITTER

**'Faster but less Freedom'. California declares centralized monitoring of all autonomous vehicles**  
FUTURETHINK

**Waymo Shifts Sales Strategy from Families to Fleet Owners**  
TWITTER

**Time Magazine: Soccer Moms Retire from Daily Driving Routine**  
FUTURETHINK

**Waymo Releases Feature to Force Vehicle Home by Curfew**  
TWITTER



# FUTURES WHEEL: PROMPTS



## Make up Your Own Starter

- Headline about Technology
- Headlines about New Client base
- Headline about Business World
- Headline about Government
- Headline about Society

Or borrow from 2020...

- President Yang Signals 'Tech Check' Legislation and \$1,000 mo. Basic Income Bill
- Amazon Buys Asset Management Firm  
Alexa is Your Wealth Advisor
- Congress Bans 501c3 Status
- Wisconsin High Schools to Teach Skills for 3D Additive Manufacturing
- Company-X requires all employees to have an AI Assistant Help them with Work
- Opening Weekend at Bellin Robo-Outpatient
- UW System & Microsoft (LinkedIn) Offering Reduced Training to Upskill 1 million Wisconsin Workers
- Green Bay Allows ADU (Alt Dwelling Units)

# Worksheet & Easel Version

**Fictional  
Headline  
2020 - 2022**

futurethink

2020

Signal of Change



**Positive Headline  
(Two Years Later)**

futurethink

2022

**Negative Headline  
(Two Years Later)**

futurethink

2025

  
**Tweet from Org  
(Two Years Later)**

[Tweet](#)

  
**Tweet from Org  
(Two Years Later)**

[Tweet](#)

2028

**Negative Headline  
(Two Years Later)**

futurethink

**Positive Headline  
(Two Years Later)**

futurethink


  
**Tweet from Org  
(Two Years Later)**




  

[Tweet](#)

**Negative Headline  
(Two Years Later)**

futurethink

  
**Tweet from Org  
(Two Years Later)**

[Tweet](#)

# HEADLINES FROM THE FUTURE

**Share your most provocative path...  
& Tweet from 2030**



# Launch Conversation on Who do we want to be...?



**“I” Shaped Person**  
Success via Specialization



**“T” Shaped Person**  
Success via Integration

# What do we want to be as T-Shaped Individuals?



**“T” Shaped  
Professional Community**

**Also Trained in ....?**

**Ethics**

**Behavior Science**

**Cyber Security**

**Aging**

**Systems Thinking**

**Experience Design**

**Service Design**

**Psychology**

**Data Science**

**Crypto / Blockchain**

**Restorative Practice**

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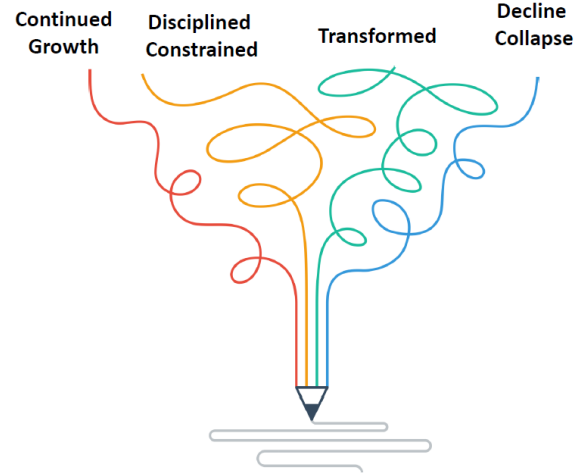
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**5 min**



**Foresight  
Journey**

**5 min**



**Transformed  
Scenario**

**~5 min**



**Talent for  
Leading Change**

# NEXT FEW WEEKS

## GARRY

- Catching up on Returning Your Docs!!
- Help you prepare for Dec 12<sup>th</sup>

## GROUP

- Prepare for Dec 12<sup>th</sup>  
Summary of:
- Four Futures
- T Shaped Talent