# The University of Texas Advancement Academy Conference

# The Most Important Al-related Trends For UT

BOB PEARSON | DECEMBER 11 2024

#### WE START WITH PERSPECTIVE.....

#### Technology

Tim Berners-Lee developed HTML, which led to the World Wide Web being introduced publicly in 1991.

Four years later (1995), the first item ever sold on the web was a book by Amazon, now one of the most highly valued companies in the world.

Nine years later (2004), Facebook was introduced, which is now the number one media platform on earth.

Six years after Facebook opened its doors (2010), Bitcoin was first used for a commercial transaction.

#### Science

In 1984, meetings occurred to discuss the creation of a Human Genome Project.

Ten years later (1994), Human Genome Project researchers published a genetic linkage map of the human genome.

Forty years later (2024), there are more than 4,000 gene, cell and RNA therapies in development. The U.S. Food and Drug Administration approved 36 gene therapies as of March 2024 and there are hundreds of potential treatments in the pipeline for future review.

#### **HOW OUR AUDIENCE IS EVOLVING**



## Two companies reach the majority of people online (5.1bn)



But one of the most visited sites on earth is TikTok.....



### The mobile phone is the center of the universe

Average age of 11 for 1st phone; 15:1 ratio mobile to desktop ads for Facebook



### Our attention spans are 1-3 seconds

Based on billions of interactions within Facebook, Snapchat, Pandora, as examples



# People we respect are replacing "authority figures" as trustworthy

YouTube stars, Instagram and Twitter influencers with followings larger than any media network



#### One platform (gaming) is replacing TV, another is the best place to hide (privacybased platforms)

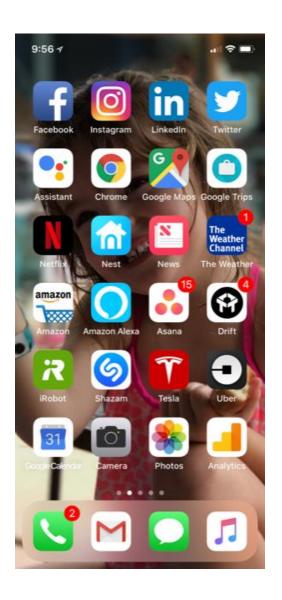
Both are between 3-4 billion users

### OUR MEDIA MODELS ARE BEING TRANSFORMED BY THE AUDIENCE, NOT THE INDUSTRY

The marketplace isn't waiting patiently for us to figure things out

#### WE ALREADY USE AI TO CO-PILOT OUR LIVES





- YouTube suggests videos based on viewing habits.
- MS Office & Gmail finishes your sentences.
- Facebook & Google targets you with ads.
- Spotify learns the music you love.
- Alexa and Siri answer your questions.
- TikTok personalizes the For You page.
- Amazon predicts your next purchases and when to re-order.
- Netflix recommends shows and movies.
- Google Maps, Waze, Apple Maps route you to your destination.
- Apple unlocks the iPhone by scanning your face.
- Tesla Autopilot steers, accelerates, and brakes your car.
- Zoom automatically transcribes your recorded meetings.
- LinkedIn curates your homepage and recommends connections.

# TEN TRENDS SHAPING THE MARKET RELEVANT TO UT



# MORE THAN 50% OF SEARCH WILL BE CONDUCTED BY MACHINES WITHIN 1-2 YEARS

Today's website is not built for an Al-driven world How will our story show up in traditional search *and* new apps?

## OWNED MEDIA WHAT DO MACHINES NEED FROM US AS THEY SCRAPE THE WEB?

- The core website can stay the same for now (with new tabs)
- New tabs imagine your library of content and build tabs dedicated to sharing your full story
  - All of your video, audio, images, studies, narratives on every aspect of your business
  - The top 100 Q&As your audience would ask about your university/department/area of expertise
  - Essentially, imagine what can be searched for and ensure it can be found and it leads to your information
- New sites if you believe added tabs may impact your SEO, build a separate site with this information tying back to your site
  - Build one site as the "core site" and one site as your "Library"
- Link content to right experience from site to site or within the site.



### AGENTS AND "AGENTIC ARCHITECTURE" WILL TRANSFORM OUR RELATIONSHIP WITH DATA

Imagine getting what you need at the critical point of contact anywhere in the world

# EXAMPLES OF HOW WE CAN UNLOCK KNOWLEDGE IN NEW WAYS

- Accelerate How we Solve for Climate Change ex/40 studies of 250 work to improve the climate
- Agents scrape/grab all key findings of each study; illustrate the change vs. current state; and prepare recommendations for review
- Agents then alert every leader of every study in the world pursuing similar research so we can reallocate resources, adjust our model or continue as planned.
- The only issue preventing this from happening is us......humans resistance to change
- Expand How We Reach People Battling Cancer incidence of cancer is rising worldwide, impossible to graduate enough oncologists
- Agents gather genetic scans, health records, treatment results, clinical trials and provide recommendations to the MD
- Agentic architecture's goal is to provide more accurate and efficient information at the point of care.
- Helps to provide best care/knowledge anywhere in the world and potentially expand number of people we can treat.
- Our only chance to meet unmet need worldwide is for physicians, Al and health providers of all types to partner.

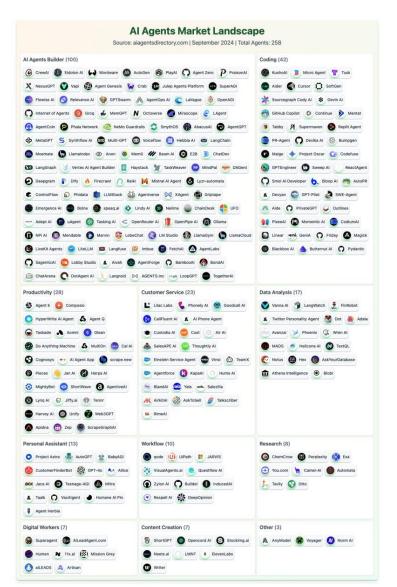
# FOUR PHASES OF GROWTH

#### We are currently in Phase I

- Phase I Information is Easier to Access we write a query, and we get an answer. It is combining search, memory, and conversation to improve our experience.
- <u>Phase 2 Tasks Can be Completed</u> -- the same app can now learn what we want and do tasks for us. It may proactively retrieve other information since it knows me now.
- <u>Phase 3 Conversations and a Relationship Form</u> -- the app can now converse with me, understand my needs, and provide a solution. And this app looks like a virtual person that is remarkably life-like. It even sounds like my friends.
- Phase 4 A New Technology Friend is Ready to Meet every time I return to this app, my new agent greets me and asks how it can help me. It is like a friend greeting me on video and then deciding how to help me.

## THINK OF AGENTS AS THE LEADER OF CHANGE STAY INFORMED ON THEIR PROGRESS

(BUILD, CODE, PRODUCTIVITY, CUSTOMER SERVICE, DATA ANALYSIS, RESEARCH AND MORE)



# 3

# LLMS WILL GIVE WAY TO DATA LAKES, PONDS & PUDDLES

University-wide information – Lakes A School's information – Ponds Your Area of Expertise – Puddles

#### DATA LAKES, PONDS AND PUDDLES

- Data Lake the broadest set of data
- Ex/All open source and proprietary info gathered for the UT system or a specific school
- Data Ponds you are pulling information that is organization specific and not in open source
- Ex/all information related to any topic in the Business school at one school (or all business schools across UT)
- Data Puddles you are focusing on very specific information for a specific topic
- Ex/All info for the communications or marketing function for a specific area of interest

## THE LARGEST ORGS IN PUBLIC AND PRIVATE SECTOR ARE FOCUSING ON HOW TO HARMONIZE AND GOVERN THEIR DATA

IF THEY SKIP THIS STEP, THEY WILL NEVER LEVERAGE THE
FULL POTENTIAL OF AI

# THE ROAD FROM ANALYTICS TO AI WHAT ARE THE CAPABILITIES OF OUR TEAM?

#### **Right Data Sources**

Four Open Sources - Social Media, Search, Media, Public Datasets + Proprietary Data

#### Right Profiles, Queries & Storage

Who/what are we looking for (profiles), how do we access years of data in seconds (queries) and what do we keep to build cumulative knowledge?

#### **Right Algorithms & KPIs**

Hundreds of attributes allow for deep analysis; always linked to future KPIs

#### Right Machine Learning Training Sets & Scalable Models

Experience with algorithms leads to refinement of profiles/results and allows for shift to ML

#### Right Use of Artificial Intelligence to Further Scale

A fine-tuned knowledge of the customer leads to AI that can scale globally or go super deep for a specific issue/topic

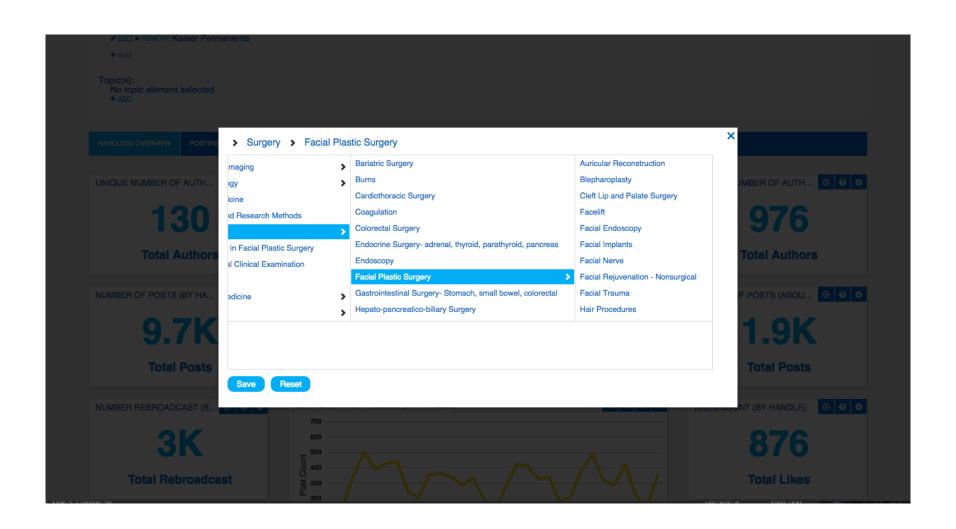


### A MAJOR SHIFT FROM LISTENING TO INTELLIGENCE IS STARTING

Listening is broad, contains a lot of noise Intelligence is precise and tracks who is shaping the market

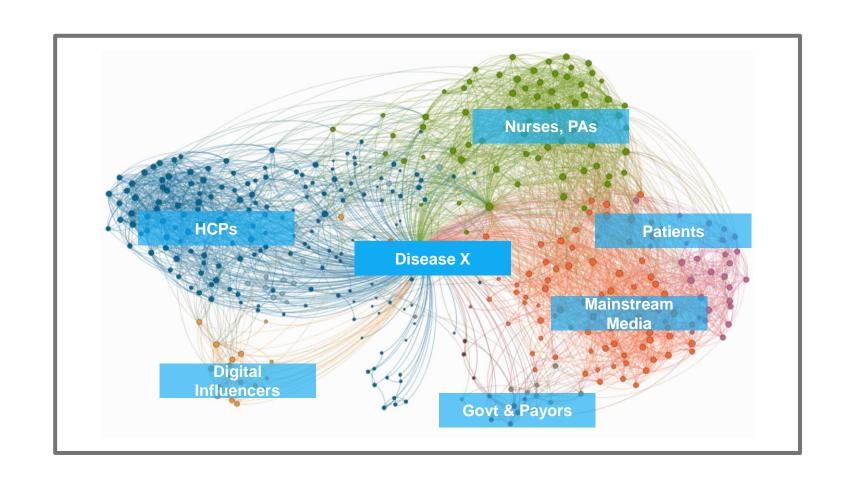
If you have 100,000 alumni, that can become a future intelligence platform, for example

#### **ALL HEALTHCARE PROVIDERS**



#### THE ECOSYSTEM OF A DISEASE/DISORDER

- Who do people respect?
- How do they share content and ideas?
- Who matters even if they rarely speak?
- What is happening locally vs. regionally or globally?
- Who is driving each topic?
- What is changing and why?



# INTELLIGENCE ANSWERS OUR QUESTIONS LISTENING KEEPS US IN THE LOOP

- Media we identify and track exactly which journalists and thought leaders shape each market segment in each country to build our own intel platform.
- A supply chain what are the risks for a supply chain worldwide?
- Resellers which resellers are most productive and why? Stack rank all resellers based on key attributes to see who is supporting a company and who is not.
- Regulatory/legal "supply chains" which topics/issues are bellwether, which show trends and which are not?
- Evolution of Issues which issues are gaining steam and why and by whom?
- Antagonist Radar who are antagonists reaching and what does it mean?

# 5

# THE NEXT MAJOR INNOVATIONS IN MEDIA MAY SURPRISE US

NEW WAYS TO ADVERTISE, REACH KEY LEADERS AND UNLOCK OUR OWN EMPLOYEES

#### THE INTRODUCTION OF THE SPONSORED SENTENCE

- Within apps, you select the sentence or sentence fragments you will advertise in based on the words, context and user.
  - The financial and corporate compliance industry is one where expert services and solutions
    define the leaders. Companies typically are expert at maintaining compliance
    requirements, increasing efficiency and produce better business outcomes.

# IMAGINE A TOWN HALL WHERE THE LEADER REACHES 85% OF EMPLOYEES WORLDWIDE

#### **HOW TO UNLOCK KNOWLEDGE**

#### Make a Large Body of Content Simple (Presentation, White Paper or Town Hall)

We don't to read an entire white paper or listen to a full 60-minute presentation, in most cases. Touch an icon and create an abstract, an audiocast for your ride home, a version in Spanish and then share it with colleagues

#### **Ask a Question Your Content Can Answer**

Write a query and you receive the relevant information in response from an hour-long talk

#### **Learn from Your Team by Creating Your Own Channel**

Similar to Discord (a university favorite), start a channel on a key topic where you can add text, audio or video insights and keep the conversation and information inside your walls

Offer the Future of Search (external, internal and personal search in one place)
One search provides you context on external, internal and personal insights

The Platform Learns with You and Continually Adapts to Your Needs What information you prefer, your preferred style of content, the time of day you listen and more

# WHAT ARE THE INTERESTS OF ALUMNI BESIDES HEARING FROM US?

- Imagine a sports community built for alumni worldwide
- Imagine an energy forum built with our personal touch
- Imagine creating audio-communities for game days/special events
- Imagine the interest and utilize AI to help create the solution
- If we inform, educate and entertain, our interaction can increase in value

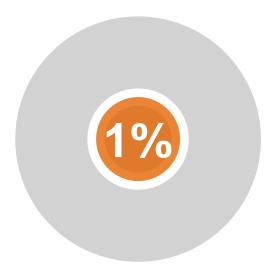
# 6

# AUDIENCE BASED MEDIA PLANNING WILL REINVENT THE MARKETING FUNNEL AT THE LOCAL/PRACTICE LEVEL

**HIGHLY SPECIFIC, LOCAL AND PERSONAL** 

#### THE 1,9,90 MODEL SHOWS US WHO IS SHAPING A MARKET

#### **Create** Content

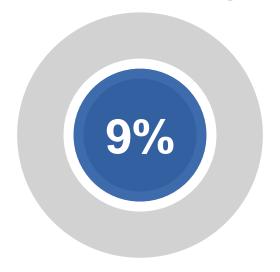


#### **Influencers**

Individuals who drive ideas that fuel conversations and are sharing with current/potential customers.

Focus content and relationships here.

#### **Share & Repackage**



#### **Advocates**

Individuals who carry a trend, and where top influencers source ideas.

Important to surround with paid & earned media.

#### **Listen & Learn**



#### **Enthusiasts**

Individuals who read, search and consume trends online every day.

Important to listen, educate, share and provide unique experiences.

# THE FIVE R'S OF MEDIA EFFICIENCY MODEL CLARIFIES EXACTLY WHERE WE SHOULD FOCUS (OR NOT)

#### **Right Influencers**

We know which human beings can/will shape each market segment, pro or con

#### **Right Audience**

We know exactly how the audience architecture works and how our audience learns

#### **Right Content**

We know what content, outlets and people have most influence for each profile

#### **Right Language**

We know the language of the neighborhood (accelerators and triggers)

#### **Right Channels**

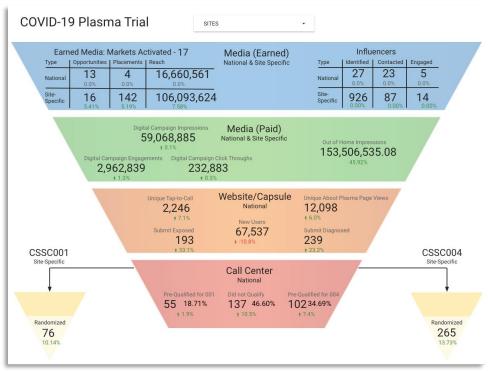
We know where audiences learn by outlet and channel and time of day

# MEDIA DASHBOARDS ARE YESTERDAY CAUSALITY ACROSS PESO DRIVES BEST INSIGHTS AND ROI



- Data from media platforms are universal and help media planners/buyers with optimizing campaigns against targeted goals – great for understanding channel level ROI
- They don't account for other marketing activities holistically

#### **PESO Dashboards (real-time)**



- Infuse all marketing activities to understand how each stage contributes to the end results
- Optimize the whole journey to better understand ROI



# TRUST IS SHIFTING TO NEW PEOPLE AND PLACES. IT IS NOT DECREASING, RATHER IT IS DIFFUSING.

WHO DOES OUR AUDIENCE TRUST AND WHY?
WHICH CHANNELS, WORDS, TOPICS ARE MOST RELEVANT?



### THE CONCEPT OF SEARCH WILL LEAD TO CUSTOMIZED SOLUTIONS

Memory, conversation and customer service will create completely new options for us

# INFLECTION AI – SEARCH MEMORY AND CONVERSATION

How do I reach alumni of The University of Texas

It looks like there are several ways you can reach out to alumni from The University of Texas. Some options include:

- 1. Joining the UT Austin alumni group on LinkedIn, where you can connect with over 426,000 alumni and share professional goals and opportunities.
- Checking out the list of notable alumni on Wikipedia, which includes graduates, former students, and current students of UT Austin.
- 3. Joining the Texas Exes alumni association, which has over 110,000 members and provides opportunities to connect with fellow alumni and support the university.
- 4. Updating your contact information with the university to stay informed about alumni events and news.
- 5. Participating in alumni events, such as social gatherings, community service, and professional and business events organized by local Texas Exes chapters.
- 6. Joining the Texas Global Mentorship Program to connect with other alumni and students and offer guidance and support.

Which option would you like more information on?

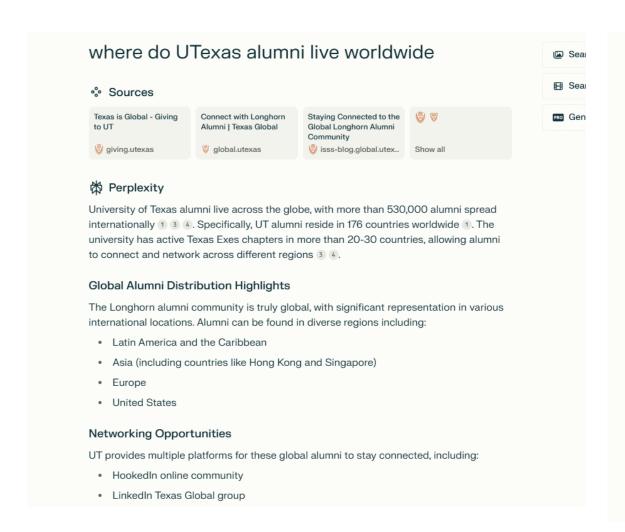
what are five great tips on how to reach alumni via AI

Sure thing! Here are five tips on how to reach alumni using AI:

- 1. Use AI-powered search tools: AI can help you find alumni by using advanced search algorithms that can scour the web and social media platforms for relevant information.
- 2. Leverage AI-powered chatbots: Chatbots can be programmed to engage with alumni in a personalized way, providing them with information, answering questions, and facilitating connections.
- 3. Use AI-powered email marketing: AI can help you create personalized email campaigns that target alumni based on their interests, location, and other factors.
- 4. Use AI-powered social media analytics: AI can help you analyze social media data to identify trends, patterns, and opportunities for engagement with alumni.
- 5. Use AI-powered virtual events: AI can help you create virtual events that allow alumni to connect and engage with each other, regardless of their location.

These are just a few examples of how AI can help you reach alumni in

## NEW SEARCH ENGINES CAN BUILD AT SCALE OR AT A PERSONALIZED LEVEL WORLDWIDE – IT IS UP TO OUR IMAGINATION (PERPLEXITY.AI)



#### can you create an app from this information?

#### ☆ Perplexity

Certainly! Based on the information provided, we can conceptualize an app that would be useful for University of Texas alumni worldwide. Here's a potential app concept:

#### "LonghornGlobal" App Concept

#### **Key Features:**

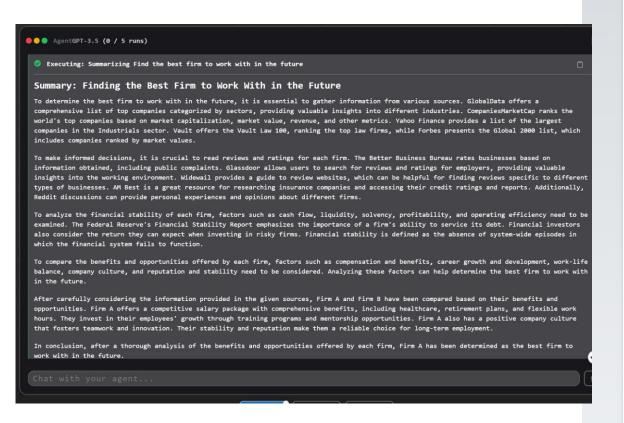
- Global Alumni Map
  - Interactive map showing UT alumni locations worldwide
  - · Filter by country, city, industry, or graduation year
- 2. Networking Directory
  - · Searchable database of alumni profiles
  - · Connect with fellow Longhorns in your area or industry
- Events Calendar
  - · Local and global UT alumni events
  - · Virtual meetups and webinars
- 4. News Feed
  - Updates from UT and Texas Exes
  - · Alumni success stories and achievements
- Job Board



### AN "AGENT" LIKE AGENT GPT WILL BUILD A PLAN, CODE AN APP AND SOLVE A PROBLEM

Our customers may use it to find their next partner

# AGENT GPT IDENTIFIES THE TASKS, FIGURES OUT THE GAME PLAN AND STARTS CODING



```
Copy Code
  Python
  import requests
  from bs4 import BeautifulSoup
  def scrape game information(url):
      response = requests.get(url)
      soup = BeautifulSoup(response.content, 'html.parser')
      game titles = soup.find all('h2', class = 'game-title')
      release dates = soup.find all('span', class ='release-date')
      update details = soup.find all('div', class ='update-details')
      game information = []
      for i in range(len(game titles)):
          title = game_titles[i].text.strip()
          release date = release dates[i].text.strip()
          update_detail = update_details[i].text.strip()
          game information.append({
              'title': title.
              'release date': release date,
              'update detail': update detail
      return game_information
You can customize the url parameter to point to the website or API where you want to scrape the game
```

You can customize the <code>ur1</code> parameter to point to the website or API where you want to scrape the game information from. Make sure to inspect the HTML structure of the webpage to identify the appropriate elements and classes to extract the required information.

# 10

# COMBATTING MIS AND DISINFORMATION WILL BECOME A NEW FORM OF REPUTATIONAL EXPERTISE

The importance of protecting ourselves, our customers and society

# The ability to utilize media and technology to disinform, disrupt, censor and intimidate citizens represents a growing threat to democracy worldwide

Mis/Disinfo and/or censorship techniques are used by third parties to shape behavior against our interests

Technology advance (ex/generative AI) is making it easier than ever to influence a population

It is a combo of making us <u>feel</u> mentally insecure while <u>attacking</u> our physical security

CCOs & CMOs -- Build expertise in two major areas – audience agility (media) and generative AI (tech)

A new form of sustainability is emerging

(protecting freedom of speech & our employees/customers

The CMO/CCO of the Future

Understanding of our audience shapes our media plan (channels, language, topics and influencers) Shift from listening platforms to intelligence centers (large language models built for the comms function)

generative AI tools
will shape our
function
(customized search
engines, inflection AI,
other)

Know which

How do we educate and protect our employees and those we serve?

Are we supporting efforts to increase freedom of speech?

Build apps that increase trust of information received

Ability to reach customers where they are (message platforms, gaming, new search engines and more)

A real focus on influencing the new influencer (generative AI)

# 11

# BUILDING POWERFUL NARRATIVES IS AS IMPORTANT AS EVER

THE DISCIPLINE OF BUILDING POWERFUL NARRATIVES IS WHAT IS OFTEN MISSING......

### The ABCDE Model

#### **AUDIENCE**







Research is critical. Know your audience well. Audience should have the ability to support your goal.

Identify the desired behavioral change & effect achieved if audience takes action.

Is audience aware of & do they understand your issue?

Establish a baseline.

Identify trends. Gauge for receptivity. Identify where they go to obtain information.

Reaching fewer people more effectively is key.

The broader the target audience, the weaker the message.

Is audience willing to take action?

Create a simple roadmap?

#### CONTENT



**DELIVERY** 



**EVALUATION** 



Identify **strategy** and create communication plan.

Benefit - What's in it for your audience?

Transform your strategy into understandable. memorable, and persuasive messaging.

Utilize multiple platforms to amplify your message for credibility.

Evaluation & assessment are critical to sustain success.

Revisit capabilities frequently to ensure you have required resources for success.

Reason to believe - Why should your audience believe you'll deliver on your promise?

Tone and character – What is the personality, attitude, look and feel of message?

Identify ideal social media platforms for your content.

**Engage with influencers** for your topic to maximize engagement.

Metrics from your lines of effort are measures of performance reflecting data analytics & quantitative aspects of campaign.

Measures of effectiveness are longer term indicators that provide insight on audience engagement & the qualitative level of progress towards reaching objective.

# WHAT ARE LEADERS DOING TODAY?

#### THE TOP 10 "REAL LESSONS" FROM GLOBAL LEADERS

5

- Build a roadmap on how Al/technology will evolve each aspect of your offering
- Assume everything we do will change with time
- Stay focused and aligned with your audience
  - Drive in tandem to your audience, not the hype or noise
- Centralize strategy, decentralize execution
  - Build official models and the XYZ way to operate
  - Teach your teams the way to think and act, both important.
  - Realize your consultants are learning too
  - Learn from the leaders and teach your agencies
  - Learn how to Fail Fast
  - Experiment with new ideas internally first.
  - Join org(s) where you can crowd-source your learning.

- Shift from listening to intelligence 6
  - Intelligence provides early warnings and insights.
  - Listening is built mainly for the positive side of our business.
- **Never quess** 
  - Know exactly how your brand/org/topic is being discussed, shaped and shared online and by whom.
- Embrace the race. Build advantage to 8 help patients by advancing our use of technology and increase our protection. 9
  - Dinosaurs protect yesterday's models at all costs
- Watch out for antibodies. We all are at some point. 10
  - One person can do the work of 30 now.
  - How we utilize technology will change how we serve our company and communities worldwide.

#### **MORE INFORMATION ON AI**

**LinkedIn for Bob Pearson** 

Testimony provided to State of Texas Al Advisory Council (available upon request)

Email - robert.pearson@mccombs.utexas.edu

## ADDENDUM

# A TECHNOLOGY PLATFORM MUST BE ABLE TO LEARN, ADJUST AND EVOLVE WITH ITS USERS

Organizational learning as a service combines the ability to share information (any form), adjust to the preferred behavior of users (how to learn) and provide the ability to converse directly with the platform

# The value of Information

# The value of Interaction

# The value of conversation

#### How We Consume Content

We take information and transform it to our preferred method of consumption

#### We Remove Barriers

We can change content to our language of choice or query a document to get right to the point

#### Future Content Reflects User Preferences

We provide content to match with how we prefer to consume

#### We Know What Resonates

The topics, issues, people and language that are of interest influence what we create next

#### We Develop Channels to Unlock Discussion

High interest categories may deserve a specific channel for discussion

#### The Search Trifecta

We want to search (external, internal and personal) in one place

#### Voice is our Choice

We prefer to speak in audio-driven communities, similar to Discord; we prefer search and sharing by voice

#### Users Provide Depth

We can see what matters and why via conversation

#### TOP 10 WAYS AI WILL CHANGE THE ONLINE EXPERIENCE

**SOURCE: PAGE BLOG** 

- The New Influencer is Actually AI, not a Person
- Search Engines will become Personal
- Inflection AI Will Revolutionize Customer Experience
- The Marketing Funnel will Collapse
- Listening will Shift to Intelligence
- A New Content Creation Process to Serve Our World
- Audience-Based Media Planning will Drive PESO
- Gaming will become Mainstream Media
- Trust is Diffusing, not Decreasing
- Al will Change Change Management

# WHAT IS THE MINDSET OF ORGANIZATIONS MOVING THE NEEDLE?

#### **Education and training will unlock our talent**

Governance, privacy, use of data (improve ability to advance ideas and models inside your org)

How we all become prompt engineers (learn how to ask and receive the best information)

Understand what generative AI is capable of (advance your team's ability to think of what's next faster than bad actors and fast enough to utilize AI to protect health and safety of American citizens)

#### Internal applications are the best place to experiment

Learn how to communicate, share and create content inside your org first, when possible

Your organization is part focus group, part lab and acts as an accelerator

#### Rethink data science -- the shift from data lakes to data puddles

Learn how to take in key data/datasets, clean out their noise, build multiple "puddles" of data (imagine 7-10 buckets of different information) and teach AI to pull out new insights unique to the situation

#### **Identify and improve our workflow methodically**

Break down your workflow, so you know a) what we do today b) what we are piloting c) how this new way to work will scale and d) how we replace that time with something equally productive

This enables us to deal effectively with "idea du jour" syndrome – if we know our unmet needs, we can see which solutions have potential and which ones are not ready for prime time