

ELEVATE

YOUR LEARNING, LEADERSHIP & CAREER

 DISCOVER

 NAVIGATE

 COLLABORATE

 **ITEN**[®] 2021



Using Technology to Accelerate Large-Scale Learning Needs Analysis



LTEN[®]2021



HELLO AND WELCOME!



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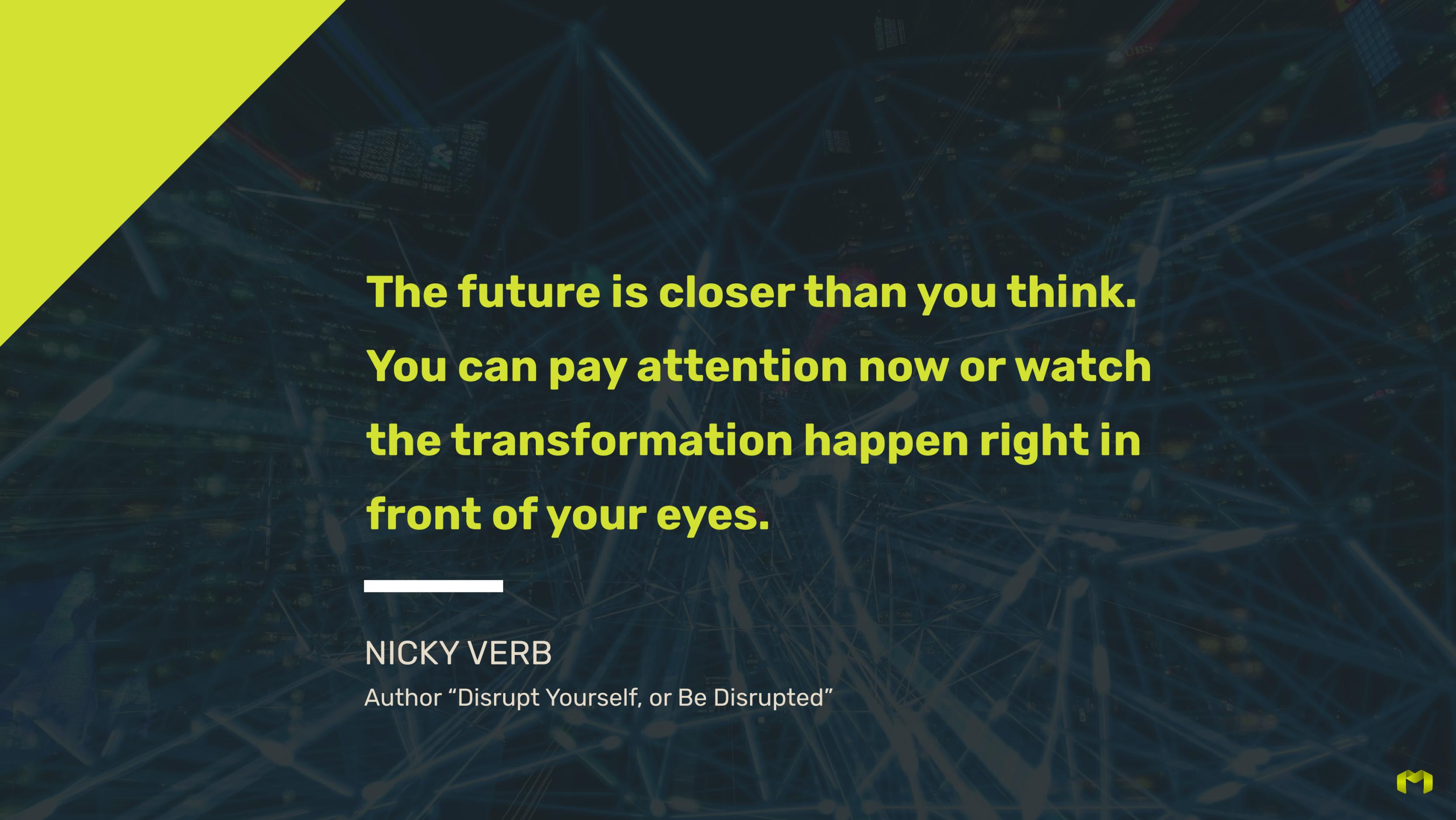


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**The future is closer than you think.
You can pay attention now or watch
the transformation happen right in
front of your eyes.**

NICKY VERB

Author "Disrupt Yourself, or Be Disrupted"



A Lot is Changing at AbbVie Canada

External

Disruption of face-to-face engagement with customers and colleagues

Health landscape is changing at a more rapid pace

Internal

Merger of AbbVie & Allergan

Adapt & evolve multichannel environment capabilities

22 product launches ahead



**A Lot is Changing on
the AbbVie Canada
Learning Team too**

The learning function has a vision:

create a transparent, agile, measurable, and innovative learning community that listens and supports the entire organization to be future ready.

Continuously adapting Best-in-Class Learning -

We already have a strong presence in commercial, need to expand to whole organization

Learning council

Listen and understand

Decide on future actions

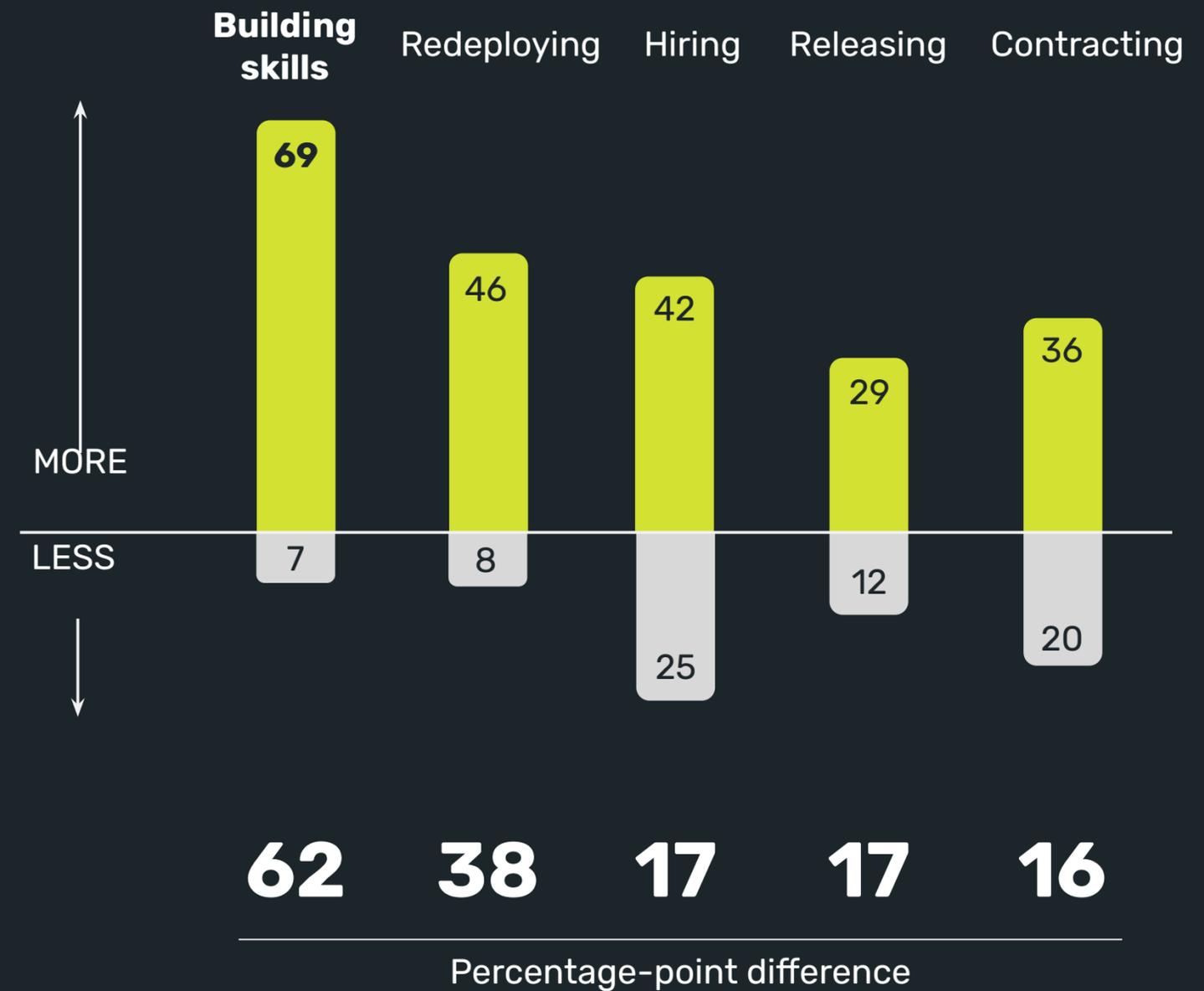
Diversify voices



WHY IS A ROBUST NEEDS ANALYSIS IMPORTANT?



Changes in actions used to close skill gaps, since the end of 2019, % of respondents¹



Skill building is more prevalent than it was prior to the pandemic, with **69% of learning professionals doing more skill building** now than they did before the COVID-19 crisis.



McKinsey Global Survey 2020

¹Respondents who answered "no change" or "don't know" are not shown; n = 700.



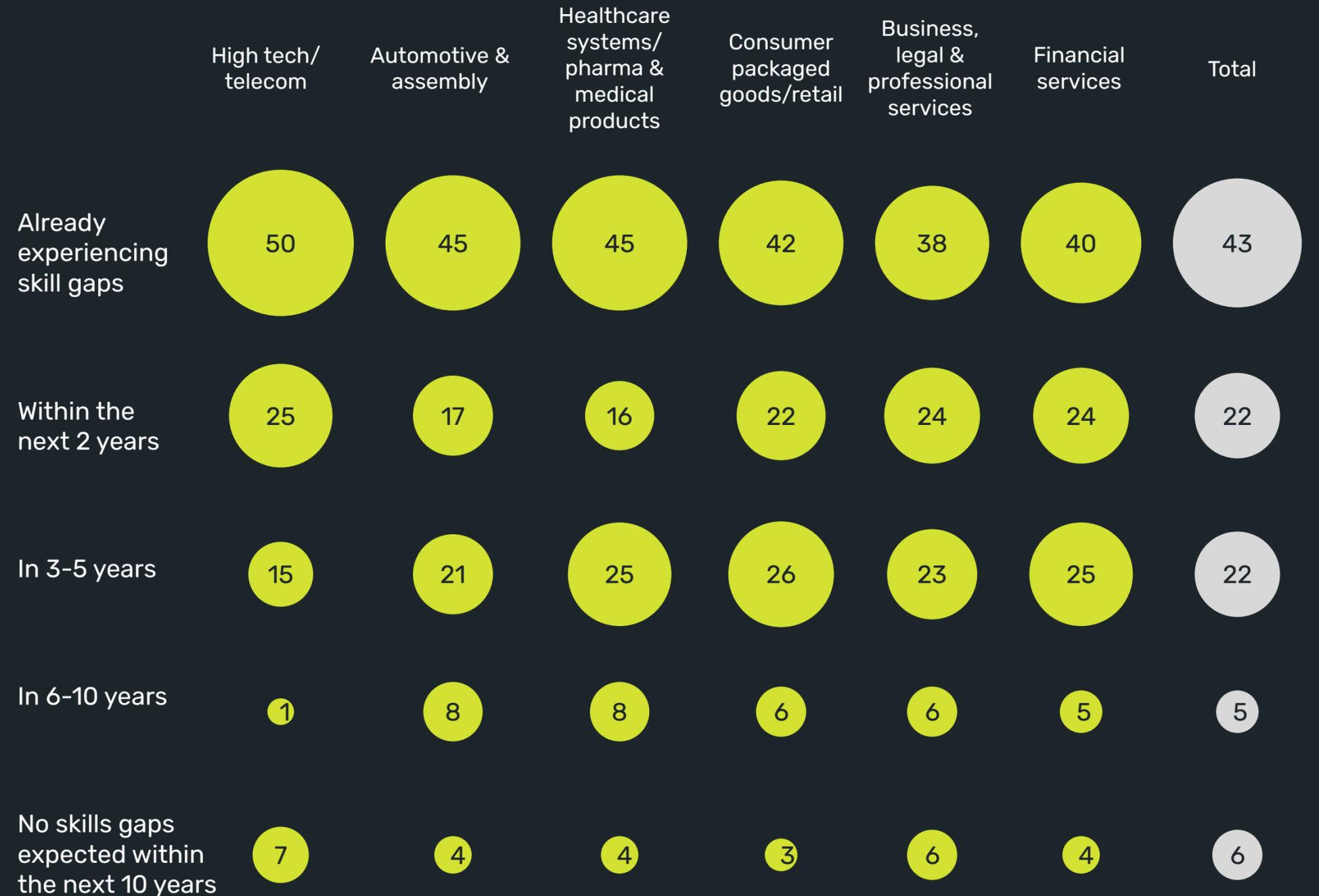
Organizations across industries say they are already experiencing skill gaps, or expect to within the next 5 years.



McKinsey Global Survey 2020

When do you think your organization will experience skills gaps?

% of respondents



Note: Respondents who said "don't know" are not shown.

Source: McKinsey Global Survey of 1,216 participants on skill gaps and reskilling efforts, 2019



What exactly are “upskilling” and “reskilling”?

UPSKILLING

- To improve current job performance
- Related to current position



**Gaining
new skills**

RESKILLING

- To perform a different job
- Not related to current position



Taking a Strategic Approach to Upskilling and Reskilling

- | | | | |
|--|---|--|--|
| <ul style="list-style-type: none">• “Voice of the customer” surveys, focus groups• Third party research | <ul style="list-style-type: none">• Strategic planning• Value proposition canvas | <ul style="list-style-type: none">• Competency mapping• Learning needs analysis | <ul style="list-style-type: none">• Learning strategy planning• Execution of learning interventions |
|--|---|--|--|



Taking a Strategic Approach to Upskilling and Reskilling

- “Voice of the customer” surveys, focus groups
- Third party research

- Strategic planning
- Value proposition canvas

- Competency mapping
- Learning needs analysis

- Learning strategy planning
- Execution of learning interventions

**30% of L&D time
spent doing this!**





**WE NEED TO FIND FASTER /
BETTER WAYS TO CONDUCT
NEEDS ANALYSIS**





The Challenges We Tackled

1

What did we want to achieve with the needs analysis?

2

How could we use technology to be more efficient?

3

How should we structure the data to get valuable insights?

4

How do we make this meaningful to the rest of the organization?



What did we want to achieve with the needs analysis?

We set big goals but knew it would be iterative to get there.



Our Goals

Support achievement of
Best-In-Class Learning

Identify company-wide and function-specific
learning priorities for the next three years

Enable data-driven decision-making about
learning for better performance

First deployment: Spring 2021 → Refine process
Second deployment, Nov 2021



How could we use technology to be more efficient?

Where Employee Voice Meets AI



Current Approaches

(There's a lot of them)

STAKEHOLDER VOICE

- A leader tells you they need training on "x"
- Interviews
- Focus groups
- Coaching reports
- Performance management outputs

EMPLOYEE VOICE

- Interviews
- Surveys
- Performance management outputs

DATA

- LMS assessment scores
- Business KPIs
- Voice of customer surveys
- Most common search queries



FOR DISCUSSION



We want to hear from you in the chat:

- How do you approach needs analysis currently?
- What's working, what are the challenges?

Current Approaches

(There's a lot of them)

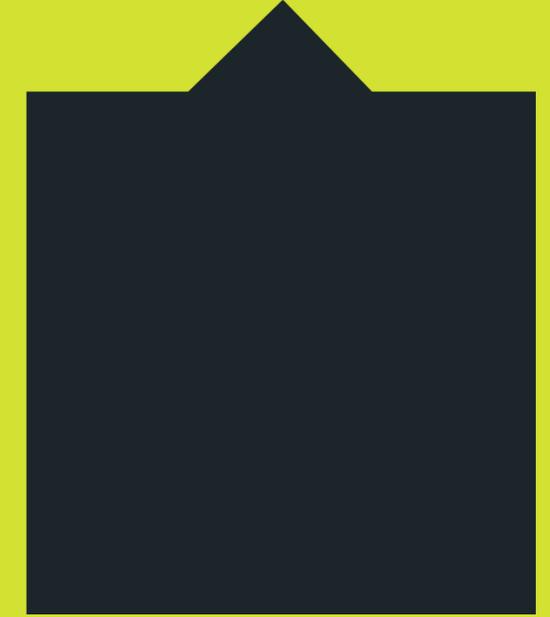
STAKEHOLDER VOICE



EMPLOYEE VOICE

- Interviews
- **Surveys**
- Performance management outputs

DATA



EMPLOYEE VOICE

1

**Voluntary communication
of suggestions, opinions,
concerns, ideas**

2

Requires a “safe space”

3

**Critical that the
feedback gets actioned**

4

**Continuous approaches (e.g.,
pulse surveys) are becoming
more common**



EMPLOYEE SURVEYS FOR NEEDS ANALYSIS

Carefully
crafted
questions can
give you a
wealth of info

Generate
richer data
by listening
to **ALL**
voices

Let's start treating
adult learners
like adults.



OUR QUESTION



How do we empower every employee via needs analysis while keeping the process efficient?

- Create a employee survey that uses open-ended free text questions to understand employee needs
- Use technology (Natural Language Processing) to analyze unstructured text responses in a fast and efficient way

Why Open-ended Questions

1

Respondents can provide in-depth answers without the influence of predetermined choices

2

Gain rich & valuable insights into what employees really think and feel

3

Allow for unexpected insights

4

Data analysis is automated using NLP



Leveraging Artificial Intelligence

Artificial intelligence leverages computers and machines to mimic the problem-solving and decision-making capabilities of the human mind.

Examples:

Alexa or Siri speech recognition
Personalized recommendations
Email or text auto-complete/correct



Natural Language Processing (NLP)

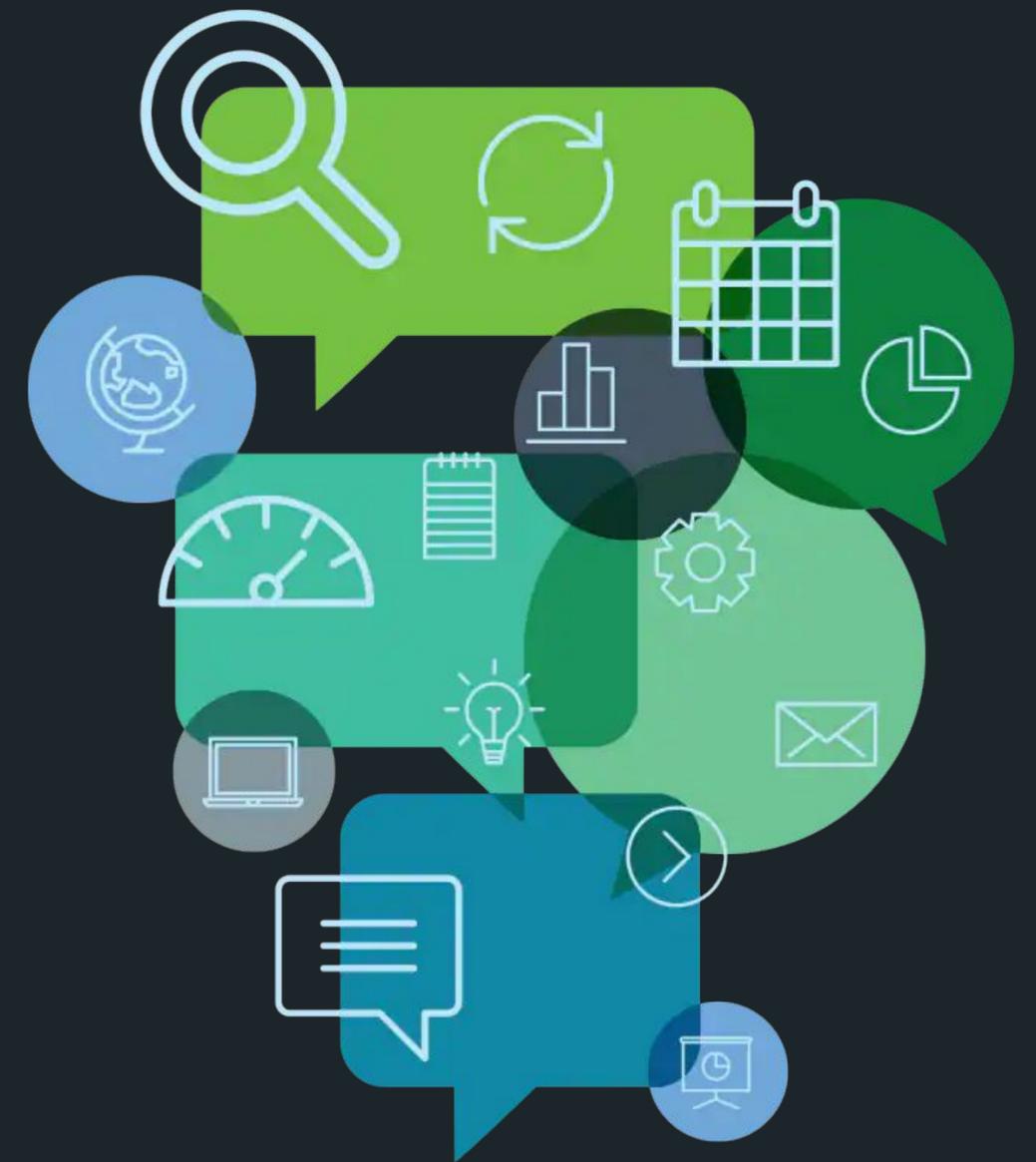
A branch of AI that gives computers the ability to understand text and spoken words in much the same way human beings can.

Examples:

Google Translate

Virtual Agents/Chatbots

Customer review sentiment analysis



Using Natural Language Processing in Employee Voice Surveys

Large volumes of unstructured, text data

NLP can analyze large volumes of unstructured text data without fatigue and in a consistent way

Turning raw text into insights

- Content categorization
- Topic discovery and modeling
- Sentiment analysis
- Document summarization



The Learning Needs Analysis Approach

STAKEHOLDER VOICE

- Interviews
- Focus groups

EMPLOYEE VOICE

- **Organization wide learning needs analysis survey using open ended questions**
- **Use NLP to analyze responses**

DATA

- HR data
- External benchmarking



How should we structure the data to get valuable insights?

It was more complicated than it sounds



What are the Right Dimensions to Consider?

Tenure:

- Less than 1 year
- 1-10 years
- 10+ years

Location:

- Office
- In-Field

What Is Your Role?

- People Manager
- Individual Contributor

Business Units:

- Immunology (Dermatology)
- Immunology (Rheumatology)
- Immunology (Gastroenterology)
- Specialty (Women's Health)
- Specialty (Eye Care)
- Specialty (HCV)
- Specialty (Men's Health)
- Specialty (Migraine)
- Specialty (Movement Disorder)
- Specialty (Psychiatry)
- Specialty (Established Products)
- Oncology

Functions:

- Medical
- Patient Experience
- Sales
- Marketing
- Customer Excellence
- Trade Relations
- Learning & Development
- Market Access / Pricing
- Regulatory Affairs / QA
- External Affairs / Communications
- GPRD
- Supply Chain / Logistics
- Office Services
- BTS
- HR
- Finance

We had to consider how we wanted to slice and dice the data

And what skills framework(s) we wanted to use during the analysis

Key Priorities			Management/Leadership Skills			
Multichannel Marketing	Virtual Selling	Virtual Engagement	Coaching	People/team management	Leadership	Providing growth / professional development opportunities



The 10-Question Survey Was Deployed with Several Company-wide Communications

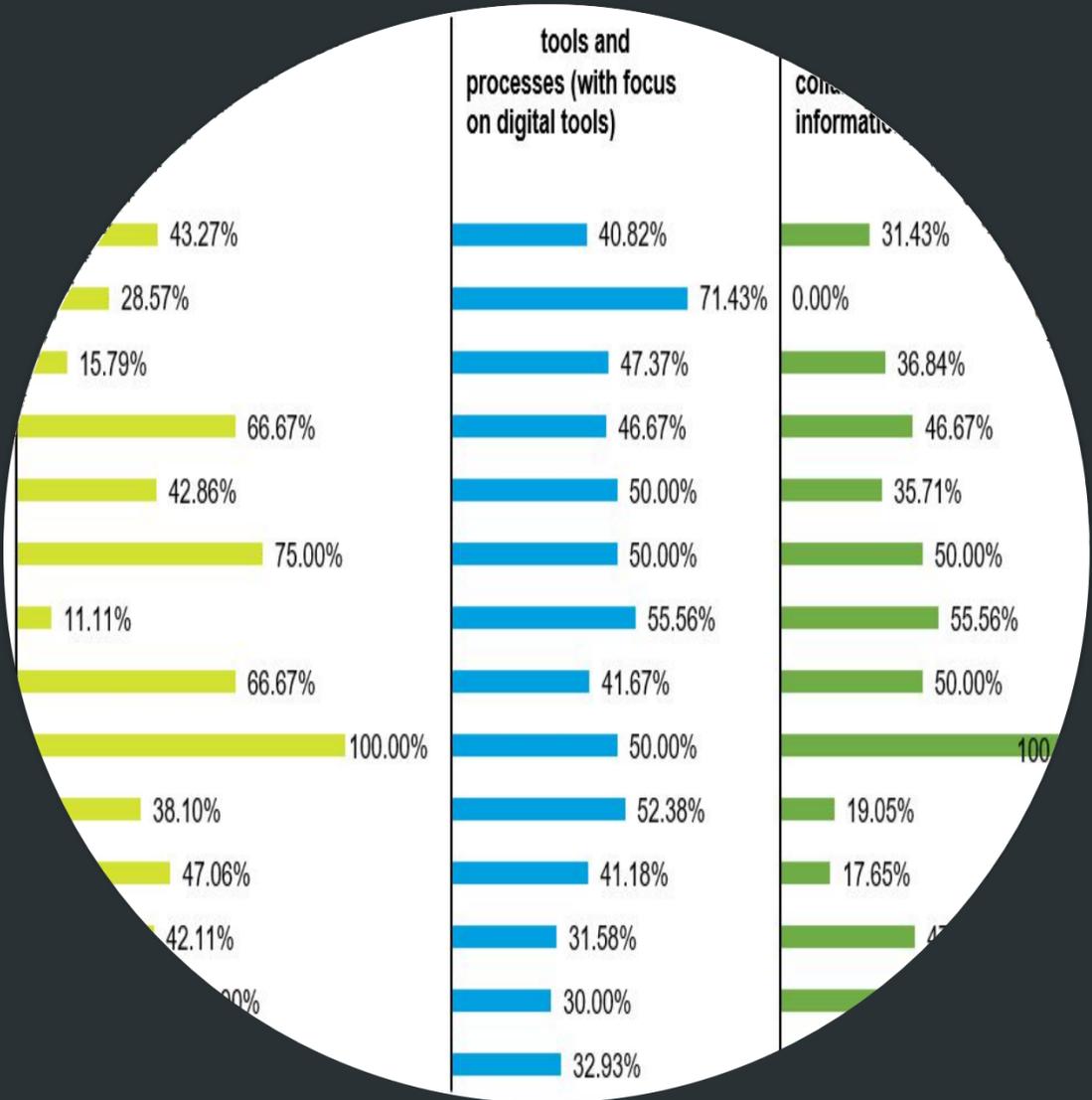
...cystic fibrosis would you like to see answered by research?

Question below:

... should measure so that we know if it works? What changes would matter to
..., but to help you, some examples for measuring improvement are - score out
().

Turning qualitative text data into quantitative insights

Based on your an	What skills and kn	What can your Lin	What tools and re	What tools, proce	Consider your lea	When considering
better understanding pa	CHE training that highlig	They are already doing a	HR Connect	I'd like to know more ab	self-directed learning an	Giving us the option to w
Managing and understa	Disease state refreshers	Listen to needs of the cl	AbbVie campus, LinkedIn	Ongoing best practices v	One on On Manager coa	Good resources available
communication in a virtu	time management - rep	challenge me	all of the above	small group learning	prefer small group learni	a centralized schedule w/
Digital transformation; c	Knowledge of the indica	Provide potential trainin	LinkedIn Learning (some	Better access to colleag	live training; hands-on w	N/A
Clear direction from ma	Time management	She is providing great dir	Currently using training r	More team building exer	On the job training , spec	Coaching on working at h
leadership skills even if v	Shadowing. Short-term	they already provide gre	HRConnect LinkedIn Lei		live workshops, 1:1 coac	better work life balance.
I am already trained on	Leadership skills	I think that my manager	ALC, LERN and personal	Free and unlimited acces	Live or virtual workshop	Sharing weekly publicatio
Communication and exc	Excel and Communicatio	Communications and fe	Abbvie Campus	LinkedIn learning	Learning is more effectiv	work from home options
Time management, codi	Coding and data enginee	Allocate time during the	linkedin learning, hrconn	coding/programming bo	on the job training and s	Not sure.
Product and therapeutic	Technology	Equally distribute specia	HRconnect AbbVie camp	One on one tech session	Live group learning	Stress management
Meeting new people	Engaging opening, time	Provide me with previou	AbbVie campus	LinkedIn learning on the	The active participation	Nothing
communication skills, m	communication, leaders	continue coaching	nothing currently	excel training, power po	Coaching and self direct	nothing I can think of
time - in ensuring a succ	leadership and coaching	my line manager is quite	all the above	not sure haven't had the	being live is so helpful in	we used to receive a bud
Practice.	Learning of new softwar	Give time frames on wo	HR Connect, SOP Trainin	Cosmos training as well	On-the-job training/spec	I think people as well as r
More knowledge about	Quality or work and tim	Assigning new tasks and	HRConnect	What's available is enou	Live workshops-On-Job-	Courses or articles or eve
I'm not being cheeky in	Honestly not sure. I feel	Doing great already.	Bits of AbbVie Campus.	I think we have the reso	Learning needs to be pr	I'm not sure mental healt
I would like to do team	Leadership/ DISC etc	pe network with the right	p LinkedIn Learning	More internal connectio	At other pharmaceutical	Yes. Talking about is not
Organization, time mane	Time to be able to make	Highlight opportunities,	During this time of trans	Flexibility to work remot	Combination / hybrid m	Flexibility to work remote
- continued FST developi	- Needs identification	- she has been very supp	- LDP, podcasts, Nationa	- continued National OL	- enthusiastic organized	- feel supported and com
having the opportunity t	having guest KOL speake	Reflect on the personal	ALC, LinkedIn Learning, E	One Stop Shop: Keep evi	Best practice sharing wit	Reduce the number of un
If available guidelines or	As my issue is with virtuo	As we have regular touc	I attend some of the LDI	I do not have anything s	Any of the learning tools	For me personally I feel
Tips on virtual engagem	A thorough understandir	Encourage me to sign up	I use the marketing tool	LinkedIn Learning	Workshops with the ext	Perhaps a compromise o
most are being provided	management training an	all good so far	LDP, Abbvie Campus	most processes and resc	Coaching on the job and	I think most support proc
Building relationships vir	Opportunities and stretc	Work with me to put tog	AbbVie Campus and LDP	A formal development p	Hands on experience is t	Improved fitness allowa
Leading through change	Prioritizing as resources	Lead with inclusiveness	LinkedIn HBR articles	Te Podcasts - things that ar	Nothing makes you learn	There are amazing podca
Greater access to peopl	Building office skills and	I am new to my line mar	National meetings are a	More videos available o	Video and on job trainin	Ensuring that training is s
Better training in new di	More up to date promot	Needs to understand the	AbbVie Campus, division	Online courses and virtu	Virtual learnings are goo	Give us more optional op
Gaining business intellig	Product knowledge beei	Establish CLEAR goals al	ALC, LinkedIn, NSM wor	unsure	One on one coaching	1 - Stop reply all to email



Process for analyzing unstructured text data in employee surveys

1 Topic Discovery

Accurately capture the meaning and themes in unstructured text data

- Natural Language Processing algorithm
- Augmented by human validation

2 Trends Identification

Splice and dice data to identify trends based on filters (role, function, etc.)

- Excel Pivot Table

3 Data Visualization

Visualize data to communicate key insights and aid in decision making

- Excel or other data visualization software

HOW



Step 1: Topic Discovery

Example question:

What skills and knowledge training would most help you succeed in your role in the short term (this year)?

better understanding patient needs
Managing and understanding customer needs and their priorities, vs our own, and how to manage that in a virtual environment.
communication in a virtual environment
Digital transformation; digital marketing; creating appropriate KPIs/measuring performance on digital solutions; how to "sell" an
Clear direction from management and support from peers.
even if you are not currently in a sales function. this knowledge and experience may open our minds and peak our interest in another position/experience.
I am already trained on my current tasks and on the ones that will be
Communication and excel training
Time management, coding.
Product and therapeutic area knowledge
Meeting new people
communication skills, managing other people managers
time - in ensuring a successful year usually on the first part is complete and there is no time to complete training on tech skills or Practice.
More knowledge about products
back to be creative and do learning aligned with my role. With so much scheduled time there is rarely a big enough gap in the calendar to even assess my learning needs. I used to love my drives to appointments or flights as it just gave me the time to put devices

Natural Language Processing
+
human validation and refinement



Time for learning / reflection

Product / therapeutic area knowledge

Cross functional collaboration / information sharing

Communication, presentation, listening, questioning

Emotional Intelligence / empathy

Storytelling



Step 2: Trends Identification

Build pivot table in Excel

Topics discovered from step 1

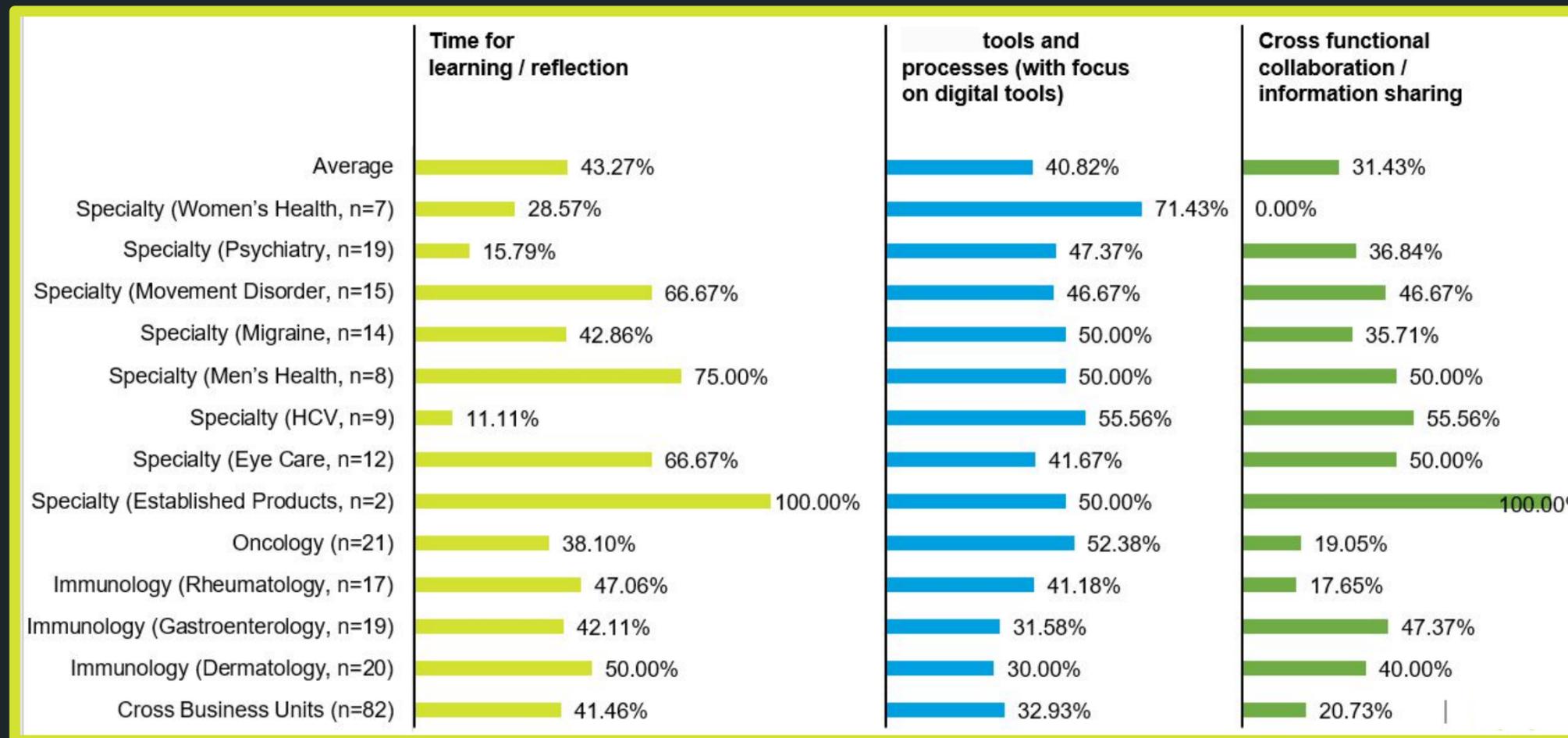
Row Labels	Count of Time for learning / reflection	Count of Cross functional collaboration / information sharing	Count of Communication, presentation, listening, questioning
Cross Business Units	34	17	31
Immunology (Dermatology)	10	8	3
Immunology (Gastroenterology)	8	9	3
Immunology (Rheumatology)	8	3	1
Oncology	8	4	4
Specialty (Established Products)	2	2	1
Specialty (Eye Care)	8	6	2
Specialty (HCV)	1	5	1
Specialty (Men's Health)	6	4	2
Specialty (Migraine)	6	5	4
Specialty (Movement Disorder)	10	7	2
Specialty (Psychiatry)	3	7	9
Specialty (Women's Health)	2		4
Grand Total	106	77	67

Filter
(example: by
business unit)



Step 3: Data Visualization

Visualize insights based on pivot table data



A Closer Look at the Report

Insights

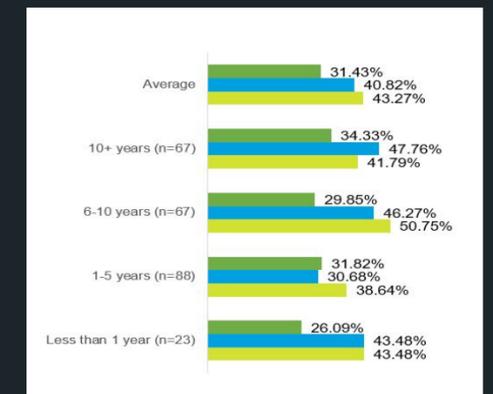
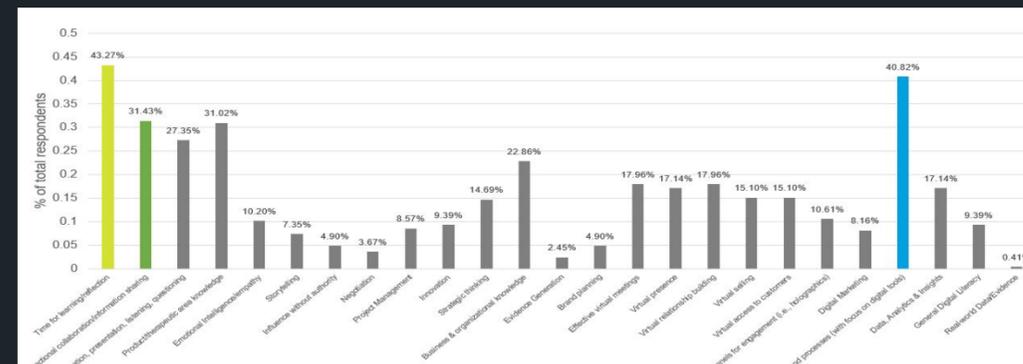
Data

We Want More
Time is of the Essence

Despite the wealth of existing resources and training opportunities, many asked for more product/therapeutic training and more systems/tools training.

Particularly as people take on new portfolios through the integration, easy to access product training can help them meaningfully contribute faster

A lack of time available for learning and a lack of work life balance were consistent themes that represent a real barrier to learning.

	Time for learning / reflection	AbbVie tools and processes (with focus on digital tools)	Cross functional collaboration / information sharing
Average	43.27%	40.82%	31.43%
Specialty (Women's Health, n=7)	28.57%	71.43%	0.00%
Specialty (Psychiatry, n=19)	15.79%	47.37%	36.84%
Specialty (Movement Disorder, n=15)	66.67%	46.67%	46.67%
Specialty (Migraine, n=14)	42.86%	50.00%	35.71%
Specialty (Men's Health, n=8)	75.00%	50.00%	50.00%
Specialty (HCV, n=9)	11.11%	55.56%	55.56%
Specialty (Eye Care, n=12)	66.67%	41.67%	50.00%
Specialty (Established Products, n=2)	100.00%	50.00%	100.00%
Oncology (n=21)	38.10%	52.38%	19.05%
Immunology (Rheumatology, n=17)	47.06%	41.18%	17.65%
Immunology (Gastroenterology, n=19)	42.11%	31.58%	47.37%
Immunology (Dermatology, n=20)	50.00%	30.00%	40.00%
Cross Business Units (n=82)	41.46%	32.93%	20.73%

	Virtual Engagement					Innovative channels for engagement (i.e. holographics)	Digital Marketing	Digital systems and tools (Veeva engage, CLM tools, Teams, Zoom advanced interactivities, sharepoint)
	Effective virtual meetings	Virtual presence	Virtual relationship building	Virtual selling	Virtual access to customers			
Cross BU (n=82)	4.88%	2.44%	3.66%	1.22%	1.22%	1.22%	2.44%	32.93%
Immunology (n=56)	30.36%	30.36%	32.14%	23.21%	26.78%	16.07%	10.71%	33.93%
Oncology (n=21)	23.81%	23.81%	23.81%	28.57%	23.81%	19.05%	14.29%	52.38%
Specialty (n=86)	20.93%	20.93%	20.93%	19.78%	18.60%	13.95%	10.47%	50.00%



How Do We Make This Meaningful to the Rest of the Organization?

Using storytelling to communicate actionable insights



Communication Back to the Organization

Presented to Learning Council so they could understand what it meant to their teams, and HR leaders.

Next was getting leadership's understanding with what it was saying so we could create action items post survey

Shared results broadly via Sharepoint





REFLECTIONS



THE BENEFITS



What worked well:

- Empowered employees to share their perspectives candidly
 - Responses were thoughtful and provided lots of valuable ideas
- The richness of the data and insights were far beyond what a typical survey could provide
- AI enabled the analysis of a large volume of text data in an efficient and quantifiable way

Key Lessons Learned

1

The NLP algorithm we used was not very accurate in identifying/categorizing topics related to Learning & Development, and the client organizational context

- Human language is highly contextual and nuanced
- Required additional human interpretation and categorization (i.e., combining listening, questions skills under the category of communication skills)

2

You don't need open-ended questions for everything

- We are refining how we ask questions in the next iteration
- includes a combination of closed- and open-ended questions



A photograph of three business professionals in an office setting. On the left, a man in a light blue shirt and dark tie is smiling and looking towards the center. In the middle, a woman with blonde hair and glasses, wearing a light grey blazer, is looking towards the man on the right. On the right, a man in a dark blue suit is gesturing with his right hand while speaking. They are seated around a table with a laptop, a pen, and two coffee cups. The background is a blurred office environment with a desk lamp on the left.

WHAT'S NEXT?



Looking Forward

Currently refining & deploying to all of OneAbbVie

Using the approach annually to gage needs, embedded into our learning planning process

Keep questions consistent to see trends and impact of our activities



Our Next Steps: Approach

1

Building an improved survey with balanced open and closed-ended questions

2

Experimenting with better NLP algorithms that can analyze learning and organizational-specific data

3

Enhancing data visualization by exploring platforms such as Power BI



Our vision is that by combining technology with thoughtful design, we can give employees the agency to have a say in their own learning & development, and doing so in a way that's efficient and impactful to the business.



QUESTIONS?

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