Is the future of your tech stack built on the foundation of your people?

The better the question. The better the answer. The better the world works.
As part of the EY Emerging Tech at Work 2023 survey, we polled 1,001 US part-time and full-time workers familiar with at least one emerging technology to share their understanding of emerging technologies and their impact on business and daily work. We heard from all generations, from C-suite titles to administrative roles and from a range of industries, in February 2023. Findings about specific emerging technologies are based on responses from those who are familiar (very/somewhat) with the respective technology.

Familiar with each technology:

- AR/VR: 82%
- Cloud/Edge/Computing: 81%
- AI/ML: 75%
- Metaverse: 71%
- Biometrics: 66%
- Generative AI: 54%
- Internet of Things (IoT): 53%
- Web3: 52%
- Blockchain: 50%
- Quantum Computing: 38%
- Edge Computing: 37%
- Digital Twin: 28%

Consolidated levels:

- Employees: 42%
- Managers: 42%
- Senior Leaders: 16%

Level breakout:

- Entry level: 9%
- Intermediate: 28%
- Junior management: 11%
- Middle management: 31%
- VP/SVP/EVP: 9%
- C-suite: 8%
- Other: 4%

Generational:

- Gen Z (1997–now): 31%
- Millennials (1981–96): 36%
- Gen X (1965–80): 20%
- Boomers (1964 and earlier): 12%

* Respondents could select more than one emerging technology, totals will be > n=1001 and percentages add up greater than 100%.
Disclaimer

Views expressed in this presentation are those of the authors and do not necessarily represent the views of Ernst & Young LLP or other members of the global EY organization.

This presentation has been prepared for general informational or training purposes only and is not intended to be relied upon as accounting, tax, legal or other professional advice. Please refer to your advisors for specific advice.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young LLP is a client-serving member firm of Ernst & Young Global Limited operating in the US.

This presentation is © 2023 Ernst & Young LLP. All Rights Reserved. No part of this document may be reproduced, transmitted or otherwise distributed in any form or by any means, electronic or mechanical, including by photocopying, facsimile transmission, recording, rekeying, or using any information storage and retrieval system, without written permission from Ernst & Young LLP. Any reproduction, transmission or distribution of this form or any of the material herein is prohibited and is in violation of US and international law. Ernst & Young LLP expressly disclaims any liability in connection with use of this presentation or its contents by any third party.
Putting humans at the center is key to the adoption of emerging technologies

- **89%**
  - Employees who believe adopting emerging technologies is beneficial for their company (% of total respondents, n=1001)

- **79%**
  - Employees consider themselves familiar with emerging technologies shaping digital transformation today (% of total respondents, n=1001)

- **74%**
  - Employees say their company has started to adopt or fully adopted at least one emerging technology in the past three years (% of total respondents, n=1001)

- **59%**
  - Employees say emerging technologies are advancing fast enough to meet their company’s needs (% of total respondents, n=1001)

- **53%**
  - Employees who would prefer to work for a company that uses emerging technologies (% of total respondents, n=1001)
Advancing the adoption curve

When tech leaders better understand how their employees perceive emerging technologies, they are better positioned to implement the ones seen as most effective and valuable, in a timely manner. Most people readily embrace technology in their personal lives – think of smartphones and apps that are used for everything from finance to fitness. The “business case” for adoption is defined in terms of convenience and efficiency. People similarly need the right incentives from their workplaces.

Relevant use cases and purposeful upskilling can demonstrate how emerging technologies could be applied for work, not just play, to help bridge the adoption gap where there is a business use case.

```
<table>
<thead>
<tr>
<th>Current</th>
<th>Willing in the future</th>
<th>Neither</th>
</tr>
</thead>
<tbody>
<tr>
<td>48%</td>
<td>50%</td>
<td>23%</td>
</tr>
<tr>
<td>56%</td>
<td>59%</td>
<td>20%</td>
</tr>
<tr>
<td>60%</td>
<td>59%</td>
<td>18%</td>
</tr>
<tr>
<td>20%</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>18%</td>
<td>17%</td>
<td>15%</td>
</tr>
<tr>
<td>7%</td>
<td>15%</td>
<td>45%</td>
</tr>
<tr>
<td>15%</td>
<td>48%</td>
<td>35%</td>
</tr>
<tr>
<td>17%</td>
<td>60%</td>
<td>23%</td>
</tr>
<tr>
<td>24%</td>
<td>56%</td>
<td>20%</td>
</tr>
<tr>
<td>23%</td>
<td>59%</td>
<td>18%</td>
</tr>
<tr>
<td>23%</td>
<td>50%</td>
<td>18%</td>
</tr>
<tr>
<td>25%</td>
<td>58%</td>
<td>17%</td>
</tr>
<tr>
<td>34%</td>
<td>51%</td>
<td></td>
</tr>
</tbody>
</table>
```

Base: Among those familiar with each technology
Many ‘emerging’ technologies are already in the workplace

Among the 79% of employees who are familiar with emerging technologies overall, many technologies may have already shed the "emerging" label. For example, 23% of survey respondents currently use artificial intelligence/machine learning (AI/ML) to automate repetitive tasks, and another 60% are willing to use it for that purpose in the future.

One of the primary barriers to adoption recognized by employees surveyed for all emerging technologies in the data set is cybersecurity risks. Employees agreed that cybersecurity training for new technologies is important and that, ultimately, the high cyber risk will not stop many from adopting emerging technology.
Amid this flurry of emerging technology, with such a high priority placed on transformations, why is new technology adoption so difficult to achieve?

<table>
<thead>
<tr>
<th>59% of employees and managers surveyed say senior leaders at their companies (including those at the C-suite and vice president levels) have been slow to embrace emerging technologies.</th>
<th>Managers (64%) are even more likely than non-managers (50%) to agree that senior leaders are slow to embrace emerging technologies.</th>
</tr>
</thead>
<tbody>
<tr>
<td>59%</td>
<td>64%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>59% of respondents say emerging technologies are advancing fast enough to meet their company’s needs.</th>
<th>52% also say these advances are typically out of date at the point of full adoption – an assessment that 59% of senior leaders surveyed agree with according to responses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>59%</td>
<td>52%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>And although eight-in-10 (85%) senior leaders surveyed say they see the value of emerging technologies at their company</th>
<th>… Almost half (48%) of employees and managers believe that the senior leaders at their company do not see the value of adopting emerging technologies – a clear disconnect.</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>48%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>89% of respondents believe adopting emerging technologies is beneficial for their company.</th>
<th>62% say they prefer using established technologies over learning emerging ones – alluding to the weight those perceptions of senior leadership may carry in an organization.</th>
</tr>
</thead>
<tbody>
<tr>
<td>89%</td>
<td>62%</td>
</tr>
</tbody>
</table>

1. Miscommunication may in part stem from senior leaders’ stance on emerging technologies as typically outdated by the time they are fully adopted at their company – an opinion that may send an unclear message to the rest of employees.

2. Keeping people on board throughout a transformation, and then in a position to follow through in the new way of working, is often one of the biggest challenges. You can invest money in the best tools, but if your people don’t use them, your transformation has fallen far short.

3. Dialogue is important in understanding where your employees are in their own technology journeys, what they’re comfortable in pursuing, and how you can engage them in new ways of working.

4. Collaborate on an internal communication plan with regular touchpoints to create a positive narrative.
Merging perceptions with reality

Recognize that the right technology for your workforce will vary by sector, use cases and skills. Employees are optimistic about emerging technologies, they also recognize that there are barriers to adoption in the workplace. Find opportunities to engage your workforce to help identify obstacles and resolve challenges.

<table>
<thead>
<tr>
<th>Key barriers to adoption for key emerging technologies</th>
<th>Ethical or moral concerns</th>
<th>Lack of buy-in from senior leadership</th>
<th>Skill gaps or shortages</th>
<th>Insufficient training or upskilling opportunities</th>
<th>Insufficient support networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established = widely used in business today</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cloud/Serverless computing</td>
<td>8%</td>
<td>14%</td>
<td>22%</td>
<td>21%</td>
<td>23%</td>
</tr>
<tr>
<td>Biometrics</td>
<td>29%</td>
<td>19%</td>
<td>21%</td>
<td>18%</td>
<td>20%</td>
</tr>
<tr>
<td>Emerging = will be used widely in business within three years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generative AI (e.g., ChatGPT)</td>
<td>32%</td>
<td>26%</td>
<td>29%</td>
<td>28%</td>
<td>20%</td>
</tr>
<tr>
<td>Metaverse</td>
<td>23%</td>
<td>25%</td>
<td>27%</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>Artificial intelligence/machine learning (AI/ML)</td>
<td>38%</td>
<td>25%</td>
<td>37%</td>
<td>29%</td>
<td>26%</td>
</tr>
<tr>
<td>Futuristic = more than three years away from wide use in business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantum computing</td>
<td>17%</td>
<td>28%</td>
<td>36%</td>
<td>32%</td>
<td>27%</td>
</tr>
</tbody>
</table>

* base: those familiar with each emerging technology

Keeping people on board throughout a transformation, and then in a position to follow through in the new way of working, is often one of the biggest challenges. Acknowledge what you know, what you don’t know and what you need to learn. Be transparent about the time and people effort involved in your vision so your people can prepare for and understand the full depth of change and the initial drawbacks.
Questions | Contact us

Faisal M. Alam  
EY Americas Technology Solutions and Markets Leader  
faisal.alam@ey.com

Matt Barrington  
EY Americas Emerging Technologies Leader  
matt.barrington@ey.com

Dan Diasio  
EY Global Artificial Intelligence Consulting Leader  
dan.diasio@ey.com

For media inquiries:

Marissa Ivo  
EY Americas Consulting External Communications Leader  
marissa.ivo@ey.com
EY refers to the global organization, and may refer to one or more of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

Ernst & Young LLP is a client-serving member firm of Ernst & Young Global Limited operating in the US.

© 2023 Ernst & Young LLP. All Rights Reserved.

2304 4220507
ED None

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, legal or other professional advice. Please refer to your advisors for specific advice.

ey.com