Realizing 2030: A Divided Vision of the Future

Global business leaders forecast the next era of human-machine partnerships and how they intend to prepare

Vanson Bourne Research Findings & Methodology
Research METHODOLOGY
Quantitative research conducted by Vanson Bourne in June, July and August 2017

QUANTITATIVE
3,800
Director, c-suite from mid-size to enterprises w/key functions
- Finance
- Sales
- IT/Tech
- Customer Services
- Production & Manf.
- HR
- Marketing
- Owner/Executive
- R & D
- Digital
- Customer Experience
- Logistics and Supply Chain

INDUSTRIES
- Automotive
- Financial Services
- Public Healthcare
- Private Healthcare
- Life Sciences
- Technology & Telecoms
- Insurance
- Manufacturing
- Media & Entertainment
- Oil & Gas
- Retail & Consumer Products

GLOBAL REACH
17 COUNTRIES
- AMERICAS
  USA, Brazil, Mexico
- APJ
  Australia, China, India, Japan, NZ, Singapore
- EMEA
  France, Germany, Italy, Netherlands, UAE/ Saudi Arabia, United Kingdom, South Africa
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Section 1

Future trends – business leaders’ forecast for the future
Technology changing our lives in 2030

“How do you envision technology impacting the way we live in 2030?” Base: 3800

- Smart machines will work as admins in our lives - connecting our needs to highly personalized goods and services: 43% Agree, 57% Disagree
- People will regularly step into immersive virtual realities: 42% Agree, 58% Disagree
- People will take care of themselves better with healthcare data sharing and tracking devices: 46% Agree, 54% Disagree
- Automated systems will free-up our time: 50% Agree, 50% Disagree
- Security and privacy will be a daily concern: 44% Agree, 56% Disagree
- It will be harder to disconnect from technology: 42% Agree, 58% Disagree
- We’ll share more and waste less: 36% Agree, 64% Disagree
- Affordable home robots will take care of us: 35% Agree, 65% Disagree
- People will value their virtual identity more than their physical identity: 21% Agree, 79% Disagree
“How do you envision technology impacting the way we work in 2030?” Base: 3800. Not showing answer options “there will be no change” and “don’t know”
Technology changing the way we learn in 2030

- The future workforce will absorb and manage information in completely different ways: 54% Agree, 46% Disagree
- To prepare for jobs that haven’t been created yet, schools will focus on teaching how to learn rather than what to learn: 56% Agree, 44% Disagree
- New learning resources (online, peer-to-peer, bootcamps, MOOCs etc.) will replace university learning for many: 59% Agree, 41% Disagree
- More businesses will work with schools and universities to train-up the next generation: 45% Agree, 55% Disagree

“How do you envision technology impacting the way we learn in 2030?” Base: 3800. Not showing answer options “there will be no change” and “don’t know”
Implications of human-machine partnerships over the next 10 years

“What are the wider potential implications and risks of human-machine partnerships over the next ten years?”  Base: 3800. Not showing answer options “there will be no change” and “don’t know”
Top tasks likely outsourced to machines

Almost all (96%) respondents think that organizations will outsource tasks to machines/automate by 2030

On average, respondents identified 5 processes ripe for automation within their organization

‘Which tasks do you anticipate organizations will outsource to machines/automate by 2030?’ Base: 3800
Most likely industries to be disrupted by 2030

“In your opinion, which three verticals are likely to experience the most disruption by 2030?” Base: 3800

1. Technology (40%)
2. Financial services (33%)
3. Automotive (29%)
4. Manufacturing (25%)
5. Public healthcare (24%)
6. Oil and gas (21%)
7. Life sciences (17%)
8. Retail and consumer products (16%)
9. Private healthcare (16%)
10. Media and entertainment (15%)
11. Insurance (14%)
12. Telecommunications (13%)
Section 2

Status of transformation and preparedness today
“How would you categorize your organization’s approach to digital transformation today?”

Base: 3800
Likely achievements within five years

<table>
<thead>
<tr>
<th>Achievement</th>
<th>Base: 3800</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D will drive the organization forward</td>
<td>36%</td>
</tr>
<tr>
<td>Humans and machines will work together, as an integrated team</td>
<td>26%</td>
</tr>
<tr>
<td>Our workforce will be more cybersecurity savvy</td>
<td>39%</td>
</tr>
<tr>
<td>We’ll have effective cybersecurity defenses in places (i.e. the best encryption, firewalls etc.)</td>
<td>47%</td>
</tr>
<tr>
<td>All employees will be ‘digital’ experts (comfortable working with and training on new digital technologies)</td>
<td>25%</td>
</tr>
<tr>
<td>We’ll pioneer the next generation internet (merging reality with VR) to deliver engaging, hyper-connected customer experiences</td>
<td>21%</td>
</tr>
<tr>
<td>Our product offerings will be delivered as a service</td>
<td>45%</td>
</tr>
<tr>
<td>We would have completed the transition to a software-defined business</td>
<td>36%</td>
</tr>
<tr>
<td>Artificial Intelligence (AI) will pre-empt customer demands - to deliver our products and services before the point of need</td>
<td>22%</td>
</tr>
</tbody>
</table>

- **We have already achieved this**
- **Likely to achieve this within 2 years**
- **Likely to achieve this within 2 – 5 years**
- **Unlikely to achieve this**
- **Don’t know**

"Is your organization likely to achieve the following over the next five years?" Base: 3800
Ability to succeed in the digital era

The majority of leadership roles will be filled by digital natives (grown-up with emerging digital tech)

- Strongly disagree: 5%
- Somewhat disagree: 16%
- Somewhat agree: 42%
- Strongly agree: 33%
- I don’t know: 4%

We have a digital strategy and roadmap for 2030

- Strongly disagree: 6%
- Somewhat disagree: 14%
- Somewhat agree: 35%
- Strongly agree: 41%
- I don’t know: 4%

We’re struggling to keep up with the relentless pace of industry disruption

- Strongly disagree: 18%
- Somewhat disagree: 24%
- Somewhat agree: 29%
- Strongly agree: 28%
- I don’t know: 2%

We don’t know whether we’ll be able to compete over the next decade

- Strongly disagree: 25%
- Somewhat disagree: 32%
- Somewhat agree: 27%
- Strongly agree: 14%
- I don’t know: 1%

We don’t know what the next 10-15 years will look like for our industry, let alone our employees

- Strongly disagree: 19%
- Somewhat disagree: 30%
- Somewhat agree: 31%
- Strongly agree: 20%
- I don’t know: 1%

“To what extent do you agree with the following statements about your organization and its ability to succeed in the digital era?” Base: 3800

57% are struggling to keep up with the relentless pace of industry disruption. 43% are not.

50% don’t know what the next 10-15 years will look like for their industry, let alone their employees. 50% are not.
Section 3

Barriers to success
Why are you unsure your organization will be able to compete over the next decade? (related to slide 14)

Base: 1578

Of respondents who agree that they don’t know whether they’ll be able to compete over the next decade:

- Tough competition: 57%
- We’re struggling to transform our workforce culture and mindset: 38%
- Outdated IT infrastructure: 33%
- Security breaches could destroy our organization: 28%
- Our business is founded on outdated products/service offerings: 25%
- Our workforce lacks the right skills to succeed in the future: 22%
- We can’t meet customer demands: 22%
- Our senior management lacks a sufficient digital mindset/approach: 15%
Top barriers to becoming a successful digital business in 2030

- Lack of a digital vision and strategy: 61%
- Lack of workforce readiness: 61%
- Technology constraints: 51%
- Time and money constraints: 37%
- Law and regulations: 20%
- No barriers/Don't know: 7%

93% say that there are barriers to their organization becoming a successful digital business in 2030 and beyond.

“What will be your organization’s biggest barriers to becoming a successful digital business in 2030 and beyond?” Base: 3800
Section 4

The ideal digital organization & how leaders intend to prepare
### Advice to accelerate digital transformation

<table>
<thead>
<tr>
<th>Suggestion</th>
<th>We’d advise this because it works for us</th>
<th>We’d advise this but we’re not doing it ourselves</th>
<th>Wouldn’t advise this</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appoint a Chief AI Officer to oversee human-machine partnerships</td>
<td>43%</td>
<td>33%</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Put policies and tech in place now to support a fully remote, flexible workforce</td>
<td>53%</td>
<td>32%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Automate everything and empower customers to self-serve</td>
<td>44%</td>
<td>30%</td>
<td>22%</td>
<td>4%</td>
</tr>
<tr>
<td>Empower lines of business to pursue their own digital strategy (distributed IT)</td>
<td>50%</td>
<td>30%</td>
<td>15%</td>
<td>6%</td>
</tr>
<tr>
<td>Align compensation, training and KPIs to a company’s digital goals and strategy</td>
<td>55%</td>
<td>30%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Task senior leaders with spearheading digital change</td>
<td>56%</td>
<td>30%</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>Make the customer experience/customer journey a boardroom concern</td>
<td>60%</td>
<td>28%</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Gain employee buy-in on the company’s digital transformation vision and values</td>
<td>57%</td>
<td>33%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Teach all employees how to code/understand software development</td>
<td>54%</td>
<td>25%</td>
<td>18%</td>
<td>3%</td>
</tr>
</tbody>
</table>

“What advice would you give to others to accelerate digital transformation in their organization?” Base: 3800
Technology investments to become a digital business by 2030

- **Technology to bring apps into the cloud for public or private access e.g. hybrid cloud**:
  - Already investing in: 49%
  - Investing in over the next 2 years: 30%
  - Investing in over the next 3-5 years: 12%
  - No plans to invest in: 6%
  - Don’t know: 3%

- **Ultra high-performance compute technologies for rapid data processing e.g. flash**:
  - Already investing in: 36%
  - Investing in over the next 2 years: 34%
  - Investing in over the next 3-5 years: 17%
  - No plans to invest in: 8%
  - Don’t know: 6%

- **Next generation mobile applications**:
  - Already investing in: 40%
  - Investing in over the next 2 years: 35%
  - Investing in over the next 3-5 years: 15%
  - No plans to invest in: 7%
  - Don’t know: 4%

- **Analytics/big data and data processing**:
  - Already investing in: 51%
  - Investing in over the next 2 years: 28%
  - Investing in over the next 3-5 years: 14%
  - No plans to invest in: 5%
  - Don’t know: 3%

- **A converged infrastructure (simplifies data management and allows information to flow quickly across platforms)**:
  - Already investing in: 39%
  - Investing in over the next 2 years: 32%
  - Investing in over the next 3-5 years: 19%
  - No plans to invest in: 6%
  - Don’t know: 4%

- **Advanced AI – self-learning/mimics human intelligence**:
  - Already investing in: 24%
  - Investing in over the next 2 years: 31%
  - Investing in over the next 3-5 years: 24%
  - No plans to invest in: 16%
  - Don’t know: 5%

- **Virtual Reality (headset and environments) and Augmented Reality**:
  - Already investing in: 27%
  - Investing in over the next 2 years: 30%
  - Investing in over the next 3-5 years: 20%
  - No plans to invest in: 18%
  - Don’t know: 4%

- **Internet of Things solutions**:
  - Already investing in: 45%
  - Investing in over the next 2 years: 29%
  - Investing in over the next 3-5 years: 16%
  - No plans to invest in: 7%
  - Don’t know: 4%

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“What new innovations or solutions is your organization investing in to become a successful digital business by 2030?” Base: 3800
Top technology investments to become a digital business by 2030

<table>
<thead>
<tr>
<th>Technology investments</th>
<th>Percentage who will be investing over the next 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Advanced AI – self-learning/mimics human intelligence</td>
<td>55%</td>
</tr>
<tr>
<td>2. Converged infrastructure</td>
<td>51%</td>
</tr>
<tr>
<td>3. VR / AR</td>
<td>51%</td>
</tr>
<tr>
<td>4. Ultra high-performance compute technologies</td>
<td>50%</td>
</tr>
<tr>
<td>5. Next-gen apps</td>
<td>50%</td>
</tr>
<tr>
<td>6. Capabilities for application acceleration</td>
<td>48%</td>
</tr>
</tbody>
</table>
### Most valued employee skills

**Valued skills for 2017**

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Creative drive</td>
<td>42%</td>
</tr>
<tr>
<td>Logic</td>
<td>34%</td>
</tr>
<tr>
<td>Project management</td>
<td>33%</td>
</tr>
<tr>
<td>Judgement and complex decision-making</td>
<td>33%</td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>28%</td>
</tr>
<tr>
<td>Technology literate – easily integrate emerging tech into work and life/can code</td>
<td>25%</td>
</tr>
<tr>
<td>Learning agility – easily learn new things, work with new tools (generalist)</td>
<td>20%</td>
</tr>
<tr>
<td>Data science skills</td>
<td>20%</td>
</tr>
<tr>
<td>Entrepreneurial mindset (identifies new opportunities)</td>
<td>17%</td>
</tr>
<tr>
<td>Domain expertise (specialist, with experience and deep knowledge)</td>
<td>16%</td>
</tr>
<tr>
<td>Cybersecurity skills</td>
<td>15%</td>
</tr>
<tr>
<td>Computational thinking (thinks and expresses solutions in ways machines can carry out)</td>
<td>11%</td>
</tr>
<tr>
<td>Gamification skills</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Valued skills for 2030**

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</table>

“Thinking about today, which employee skills/competencies does your organization value the most? Combination of responses ranked first, second and third” Base: 3800

“Thinking about 2030 and the era of human-machine partnerships, which employee skills/competencies do you expect your organization will value the most? Combination of responses ranked first, second and third” Base: 3800
### Personal preparation for the future

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending formal training courses in new ways of working/digital skills</td>
<td>50%</td>
</tr>
<tr>
<td>Pioneering new digital technologies at work</td>
<td>49%</td>
</tr>
<tr>
<td>Part of a taskforce to modernize our processes</td>
<td>45%</td>
</tr>
<tr>
<td>Informal learning (e.g. watching relevant YouTube videos, reading blogs, online test modules) to develop new ways of…</td>
<td>43%</td>
</tr>
<tr>
<td>Planning to delegate to younger ‘digitally literate’ members of staff (i.e. under 34 years)</td>
<td>21%</td>
</tr>
<tr>
<td>Planning to be mentored by/learn from ‘digitally literate’ younger members of staff (i.e. under 34 years)</td>
<td>20%</td>
</tr>
<tr>
<td>I expect that I will retire within the next 10-15 years</td>
<td>9%</td>
</tr>
<tr>
<td>I will have changed career by then – I won’t need digital skills</td>
<td>2%</td>
</tr>
<tr>
<td>I will have changed career by then – I don’t know what digital skills I will need</td>
<td>2%</td>
</tr>
</tbody>
</table>

52% of 25-34-year-olds are part of a taskforce to modernize their processes (compared to 24% of 55-64-year-olds)

88% report they’re personally doing something to prepare for their own and their organization’s digital future

“What are you personally doing to prepare for you and your organization’s digital future?” Base: 3800
“Over the next decade, do you think your organization will struggle to offer equal opportunities across your different generations of workers due to varied digital skill-sets and mindsets?” Base: 3800
Perceived generational differences

Which of the above generations are most likely to do the following?

Not showing those who selected 'Don’t know'. Base: 3800

- Most likely to rise through the ranks quickly
  - Employees under the age of 25: 15%
  - Employees aged between 25 - 35: 47%
  - Employees aged between 35 - 45: 27%
  - Employees over the age of 55: 7%

- Most likely to take digital leadership roles within the organization
  - Employees under the age of 25: 10%
  - Employees aged between 25 - 35: 35%
  - Employees aged between 35 - 45: 36%
  - Employees over the age of 55: 15%

- Most likely to demand flexible working
  - Employees under the age of 25: 21%
  - Employees aged between 25 - 35: 32%
  - Employees aged between 35 - 45: 28%
  - Employees over the age of 55: 13%

- Most likely to work as a freelancer/independent contractor
  - Employees under the age of 25: 18%
  - Employees aged between 25 - 35: 30%
  - Employees aged between 35 - 45: 31%
  - Employees over the age of 55: 13%

- Most likely to strive to work for a fully digital business
  - Employees under the age of 25: 28%
  - Employees aged between 25 - 35: 46%
  - Employees aged between 35 - 45: 19%
  - Employees over the age of 55: 4%

- Most likely to learn new skills on the job
  - Employees under the age of 25: 29%
  - Employees aged between 25 - 35: 50%
  - Employees aged between 35 - 45: 15%
  - Employees over the age of 55: 4%

- Most likely to embrace new technologies
  - Employees under the age of 25: 40%
  - Employees aged between 25 - 35: 46%
  - Employees aged between 35 - 45: 9%
  - Employees over the age of 55: 3%
Mitigating generational differences in the workplace

“What is your company doing to mitigate top generational differences sited, across your workforce?” Base: 3295
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