

## EXECUTIVE SUMMARY

### Final Question

How can HR learning programs support the upskilling and reskilling of IT employees to better develop key future competencies and capabilities?

### Introduction

As we continuously face rapid technological advancements, HR learning programs can play a pivotal role in equipping IT employees with the essential skills required to meet the future demands of the industry. This summary explores the strategic upskilling and reskilling of IT professionals and how HR-driven initiatives can develop the critical capabilities necessary for navigating the ever-changing landscape of the digital age.

### Future Competencies

**Determining skills to target:** Step one in identifying future skills is understanding the current workforce's capabilities. This allows for clarity around potential skill gaps that need to be addressed<sup>1</sup>. Once the desired skills have been identified, having a standardized process of assessing skills and competencies will reduce time and resources used, limit bias with talent management, create a sense of equity for employees, increase retention of top performers, and create a leadership pipeline<sup>2</sup>.

There are 8 best practices for tracking employees skills<sup>1,2</sup>:

1. **Self-Reporting:** This is easy to implement, low cost, and uses internal bias to identify skills.
2. **Manager Observations:** This is more time consuming, but combats bias from self-reporting.
3. **Peer Feedback:** This is more time consuming, but brings in new and varying perspectives.
4. **Standardized Assessments:** These need to be consistent in how skills are measured.
5. **Simple Assessments:** Avoid assessing too many competencies, focus on relevant skills.
6. **Development Focus:** The goal is for our employees is to learn and grow.
7. **Utilize 360 Feedback:** 360 feedback supports development better than 360 evaluations.
8. **Employee Buy-In:** This should be an ongoing process, not just an end-of-year requirement.

**Desirable Skills:** 44% of workers will need to upskill or reskill within the next 5 years<sup>3</sup> (*See Appendix Figure 1-4*). The top 3 skills on the rise are<sup>4,5</sup>.

- Creative Thinking
- Analytical Thinking
- Technological Literacy

**Automation:** 75% of companies are looking to AI (Artificial Intelligence) automation specifically in the next 5 years<sup>4</sup>. Automation is the biggest factor influencing the future of work, with a potential to increase US work productivity by 0.5%-0.9%, with reskilling the percentages go up to 3-4% annually<sup>6</sup>. This automation will impact senior level workers more than unskilled labor<sup>8</sup>.

### Benchmarking

Other companies, including Microsoft, Google, and Dell, have implemented initiatives to enable the upskilling and reskilling of their workforce to better respond to changing competencies:

**Learning Culture:** Microsoft underscores the significance of embedding organizational learning within the company culture, fostering an environment where employees are continuously learning and adapting to evolving technologies and trends. This often leads to lower turnover rates, increased job satisfaction, higher productivity, and enhanced adaptability<sup>9</sup>. Industry leaders also stress the importance of preparing for an

unpredictable future by nurturing adaptable and forward-thinking workforces. Hiring individuals who demonstrate a willingness and capability to adapt, identify essential skills, and undergo training is key<sup>14</sup>.

**Strategic Partnerships:** Collaboration with industry leaders, such as Microsoft’s partnership with Epic in the healthcare sector as well as Google’s partnership with Coursera can be utilized for development and training (*See Figure 5*). These partnerships aim to accelerate the development of technologies that can address industry-specific challenges and bring about innovation quickly and responsibly<sup>10</sup>.

**Training Initiatives:** Google places a strong emphasis on offering training initiatives, including programs like tech exchange, specific coding initiatives, and Google certifications (*See Figure 6*). Microsoft’s Skills for Jobs program offers instruction on introductory concepts of AI, responsible AI, and the core concepts and ethical considerations of generative AI<sup>11,12</sup>.

**Digital Transformation:** Dell provides valuable advice for organizations looking to accelerate digital transformation. Key strategies include gaining employee buy-in, prioritizing the customer experience, aligning compensation, training, and KPIs (Key Performance Indicators) with digital goals, and appointing leaders to drive digital change. Additionally, they recommend implementing policies and technology to support a flexible workforce, fostering coding skills, and embracing automation and self-service<sup>13</sup>.

### Recommendations and Considerations

Upskilling & reskilling can take various forms, including internal training programs, apprenticeships, partnerships with vendors, and collaborations with universities and community colleges<sup>15</sup>. Companies can also establish internal systems for skill development that enable them to attract and nurture the specific skills required for their business. To build such a system, the following framework is recommended<sup>16</sup>:

1. **Identify Skill Sets:** Evaluate your organization’s goals and assess its existing capabilities to identify any gaps. Determine the skill sets that are necessary to bridge these gaps.
2. **Set Clear Goals:** Define the objectives for your upskilling efforts. Specify the level of expertise you aim to achieve, the target employee groups, and the desired outcomes.
3. **Develop a Plan:** Create a comprehensive strategy for upskilling your employees to align with the organization’s goals. Consider budget constraints, timelines, and stakeholder input. If you plan to collaborate with external vendors or universities, establish clear requirements and a well-defined plan with these partners.
4. **Implement the Program:** Once your employees commence their skill development, it is crucial to maintain ongoing oversight. Provide continuous coaching and feedback to ensure that all employees involved stay on track with the program.
5. **Follow-Up:** After the program has been implemented, it is important to provide opportunities for employees to apply their newly acquired skills in their work. Assign tasks or transition them into roles where they can utilize their knowledge and skills effectively.

These initiatives come with challenges, such as lack of time to commit to trainings, interdepartmental resistance, outdated program qualifications, and unrealistic expectations for the program<sup>15,17</sup>. To overcome these challenges, it is essential to consistently communicate the significance of these initiatives and foster a culture of continuous learning within the organization<sup>17</sup>. Companies also can employ various strategies, such as a skills map to visualize their current organizational capabilities and how these can be developed to meet the new demands in the coming years<sup>18</sup>.

### Conclusion

HR learning programs are crucial for equipping IT employees with the key future capabilities required in the dynamic tech industry. This CAHRS Partner company should focus on identifying skill gaps, determining relevant future competencies, and emphasizing a culture of ongoing learning and within the organization.

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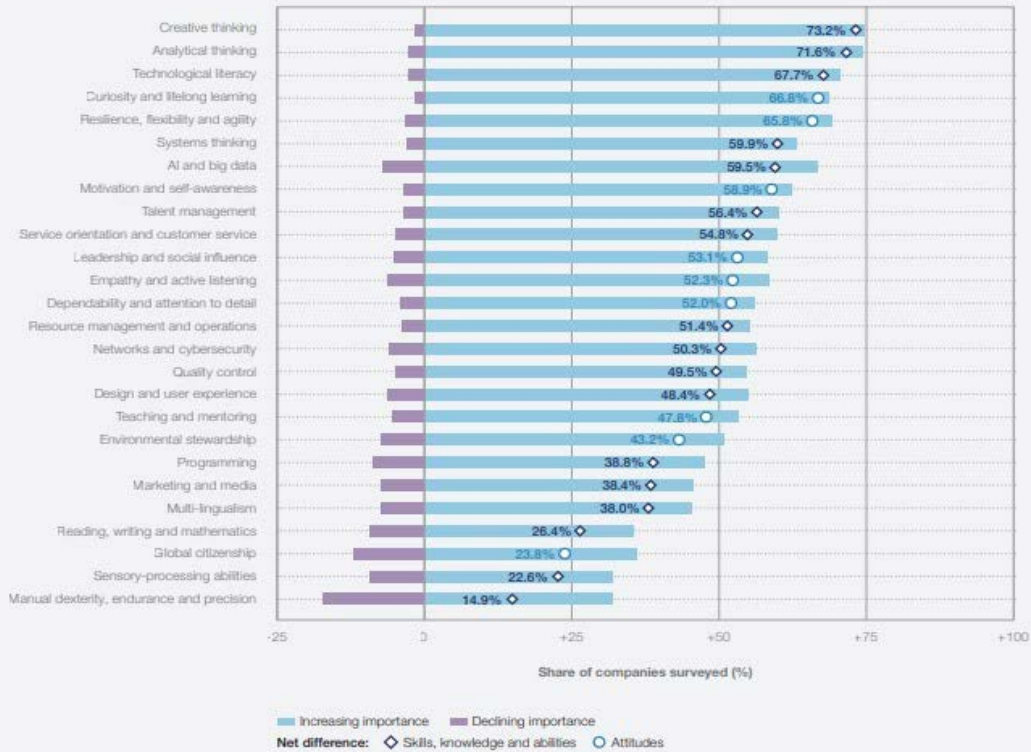
## Appendix

Figure 1.

FIGURE 4.3

### Skills on the rise

Share of organizations surveyed which consider skills to be increasing or decreasing in importance, ordered by the net difference.



#### Source

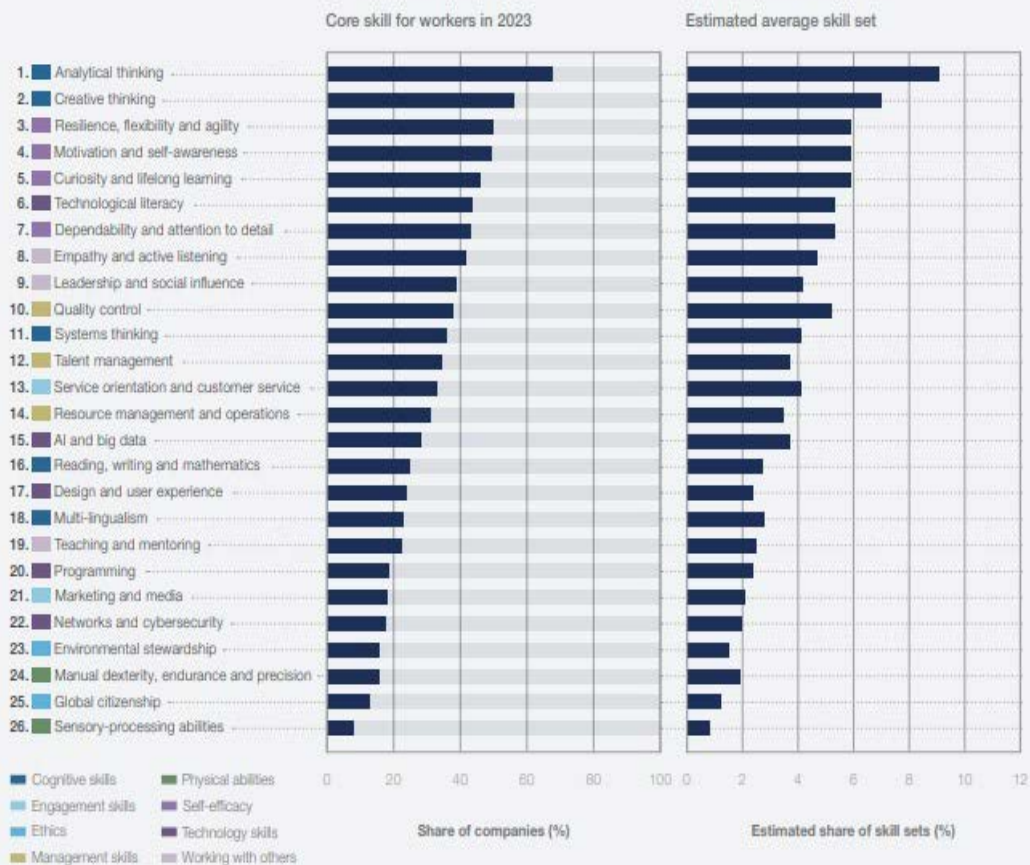
World Economic Forum, Future of Jobs Survey 2023.

#### Note

The Future of Jobs Survey uses the World Economic Forum's Global Skills Taxonomy. The share of companies which consider skills to be of stable importance to their workers is not plotted.

**FIGURE 4.2** Core skills in 2023

Share of organizations surveyed which consider skills to be core skills for their workforce. Estimated average composition of the skill sets of workers in organizations surveyed. Skills are ranked and ordered by the share of organizations surveyed which consider the skill as core to their workforce.



**Figure 3.**



Cognitive skills top the list for 2023. Image: World Economic Forum

**Figure 4.**



Future of Jobs Report 2023 Image: World Economic Forum

### **Figure 5. Microsoft-Epic Partnership**

Epic and Microsoft announced in August of this year (2023) they will be collaborating to integrate generative artificial intelligence tools into Epic's electronic health records system. They aim to deploy various AI technologies, including clinical note summarization, medical coding suggestions, and data exploration tools to enhance clinical evidence with real-world data.

The goal is to speed up the development of AI tools in healthcare, with a focus on reducing administrative work for healthcare workers. This expansion builds on previous initiatives between Epic and Microsoft, which have integrated AI services to assist with patient communication and data analysis in healthcare.

However, there are concerns about potential risks and biases associated with generative AI in healthcare, so leaders are advised to plan and assess their tech stacks, considering bias and privacy protection in advance. Microsoft's partnership with Epic demonstrates an opportunity to collaborate with industry leaders to tailor a digital/technological transformation to the needs of your company<sup>10</sup>.

### **Figure 6. Google's Initiatives**

Google, like many other industry leaders, has invested heavily in the upskilling/reskilling of their employees. While this list is not comprehensive, highlighted initiatives include:

1. **Tech Exchange:** Google offers a semester-long program to Black+, Latinx+ and Native+ students from partner Historically Black Colleges and Universities (HBCUs) and Hispanic Serving Institutions (HSIs) in North America. This program teaches applied computer science and problem-solving skills, while building social capital and community. This program allows Google to tap into a larger workforce and expand their diversity of thought within their organization while building out a talent pool in an industry that is historically underrepresented<sup>22</sup>.
2. **Certifications:** Google offers a range of certifications across various technology and digital marketing domains. These certifications are designed to train skills in high-demand fields, including cybersecurity, data analytics, digital marketing & ecommerce, IT support, project management, and UX design. Certifications from Google can be valuable for individuals seeking to enhance their skills, advance their careers, or demonstrate expertise in specific areas of technology and digital marketing<sup>22</sup>.
3. **Summer of Code:** Google Summer of Code (GSoC) is an annual program organized by Google that encourages students to participate in open-source software development projects. This program aims to foster the growth of the open-source community by introducing students to real-world software development challenges and providing them with the opportunity to work on projects that interest them. The program facilitates collaboration and the exchange of knowledge within the global open source community<sup>23</sup>.
4. **Google-Coursera Partnership:** Google initially developed a training program for IT support technicians, targeting individuals without college education or prior industry experience. After its success, Google partnered with Coursera to expand the program. This collaboration led to the creation of Coursera's Career Academy, which includes partnerships with companies like IBM, Salesforce, and Meta, offering courses in digital marketing and software development. Coursera provides these courses as "white labeled" services, enabling other organizations to offer them to their employees<sup>11</sup>.