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Training workforce at time of global skill shortage

Baby boomers are retiring
and taking their knowledge with them.
Learn how to harvest and share it
to efficiently train and upskill staff.



2021 edition

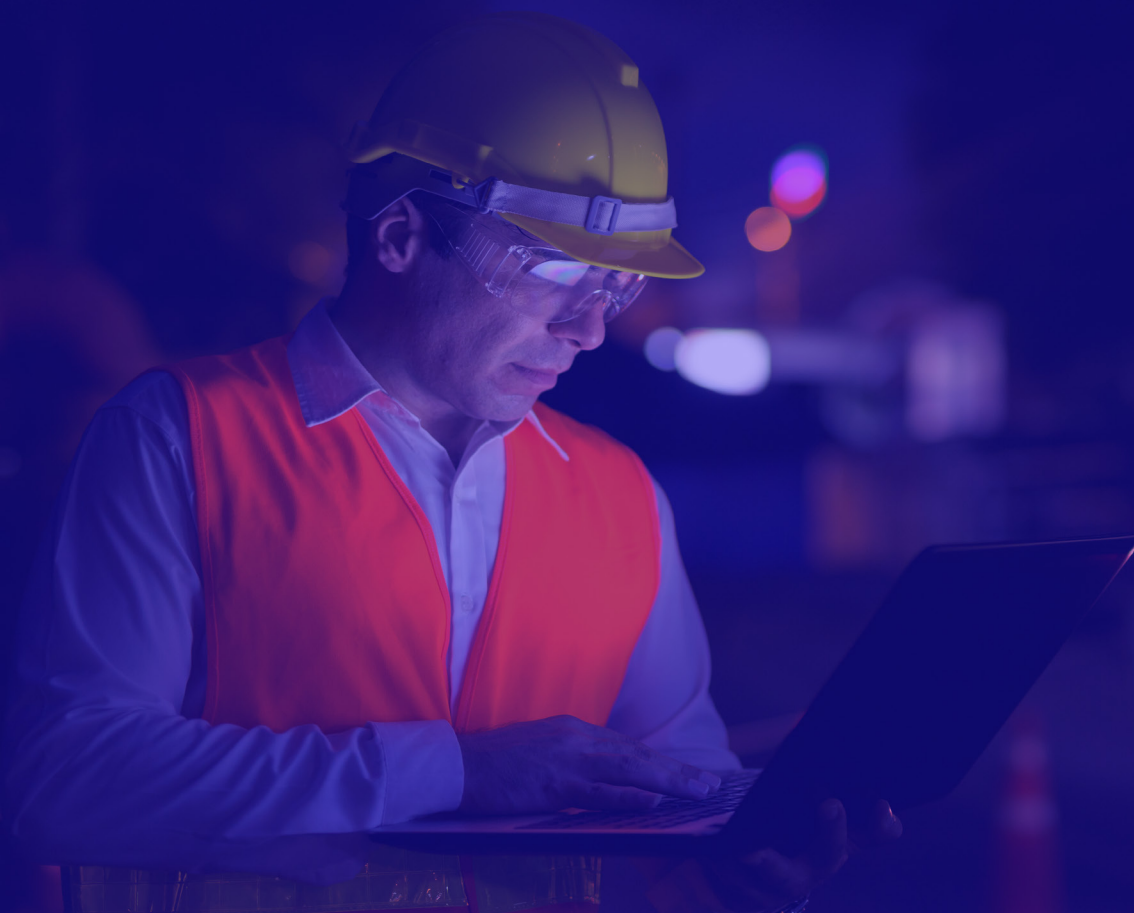
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Introduction - Silver tsunami and lack of skilled workforce

Picture this. You've got a great product, even greater demand from customers, and the profit to prove it. You have it all planned out, from manufacturing to sales – but there is a catch:

- It is getting harder to find new employees with skills matching your job listings
- Your workforce keeps fluctuating
- You struggle with efficient training and upskilling of your staff
- Your most skilled workers are retiring together with precious tribal knowledge



Does it sound familiar?

Well, then you might be suffering from „the silver tsunami“. Maybe you’ve heard about it on TV, or read about it online. However, there is a possibility you feel it affecting your organization. You wouldn’t be alone, as according to research, 89 % of manufacturing CEOs reported the silver tsunami as their top concern.

The silver tsunami is a phenomenon describing the high retirement rate and aging workforce. It is estimated that in the US, nearly a quarter of manufacturing workers are over 55 years old and many other countries around the world are reporting similar numbers. When experienced professionals retire, the knowledge they had accumulated over decades might get lost, as it often goes undocumented. As the silver tsunami washes through the industry, it makes it harder to train new employees and maintain production levels and quality.

However, that’s not the only issue – complying with old superstitions, they come in three. The second stumbling block is that employers must accommodate younger generations. They often start careers in later stages of life because of a significant focus on education. Furthermore, their values differ from those of baby boomers – they are not afraid of “job hopping” if underappreciated, or not offered a level of responsibility and purpose. Taking into consideration that manufacturing and similar fields still struggle with the outdated and misleading image of being high-risk, unstable or low-salary, it is not the easiest thing to find and keep new blood.

The third issue is that skill gaps have escalated even further by the high technological demands of Industry 4.0. According to research, nowadays, most acquired manufacturing skillsets need an update every 2,5 years. If you add the pandemical requirements that heavily depend on technology

into the mix, it is a perfect storm ready to either make or break a business.

The change starts with investing in people and building more agile and engaged workforces. The question for organizations is whether they are prepared to fill the gap left behind by experienced staff and capable of efficiently train new personnel to stay competitive.

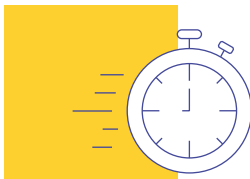
In this e-book, we’ve outlined what silver tsunami is, its consequences, how you can handle it, and what tools you can use to train and reskill your staff effectively. In the end, you will have all the essential information on how to react to current and future skill gaps, and how to build a more flexible and agile workforce.



How to train the worker of the future

If the silver tsunami and generational differences caused a lack of workforce, Industry 4.0 deepened the skill gaps even further. Job positions and required skills evolve and transform into new ones that co-exist with advanced technology. For example, using new technology such as AI and data collected by sensors can boost a process like production planning. However, this means that data analysts also must be skilled in handling and setting up such systems.

When it comes to the technological revolution in manufacturing and maintenance, the change is especially significant. After automation, the predictable and repetitive nature of tasks gravitates more towards creative soft skills and technological literacy. Employees are expected to become more flexible and versatile to be able to solve complex tasks machines cannot perform.



Active training and workforce support

According to Industry Week, workers should be the central point of any digital strategy manufacturers want to apply. Your workforce will be defined by how you handle three crucial procedures: training, upskilling, and reskilling. Proper training makes sure team members understand new information efficiently. Upskilling and reskilling help staff evolve in their current roles or take on different responsibilities.

In the past, training and reskilling were often reliant on a “training buddy” system. In such a case, a skilled worker had to take time off their day to personally guide team members through operation processes. This has been often supported by passive classroom learning that tried to cram decades’ worth of knowledge just into few short hours. There are several drawbacks to such an approach, including wasting time, increased costs, no data measuring improvements, or lower knowledge retention.

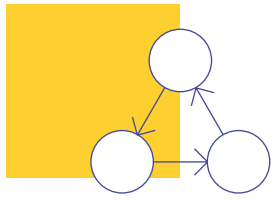
The way workers are trained and reskilled must adapt and evolve as well – traditional, passive learning will not cut it anymore.

Because of this, many organizations turn to various Industry 4.0 tools to share and retain precious knowledge, collect data, and help workers to stay connected. These can be:

- A new interface employees use to access instructions in form of images, videos, audio, and notes/feedback on processes
- IoT-enabled technologies giving operators and supervisors visibility into production
- Wearable sensors tracking employees' tasks, helping them learn faster, and finding bottlenecks to optimize
- Various manufacturing applications for customizable training
- Augmented reality glasses and displays enhancing training experience with straightforward visual instructions
- and more.

While utilizing new technology is a great step in boosting operations and training, employers also need to ensure that their workers are empowered and have the support and resources required to keep up with these innovations.





Three tiers of support

How resilient and agile an organization is, depends vastly on how empowered the workforce is.

This could have been seen already during the COVID-19 pandemic. Most activities were restricted due to social distancing and workers had to become more autonomous to stay safe. It is no surprise that the organizations that decided to shift from traditional approaches to digital were the ones adapting easier to the situation. Many organizations managed to build a living organism that is flexible and adaptable in facing disruptions with the use of these tiers of support:

- Workers have easy access to relevant information and instructions needed to carry out tasks and work autonomously
- Workers can collaborate and learn from each other to enhance problem-solving skills
- Workers are enabled to contact a remote expert when facing a complex issue

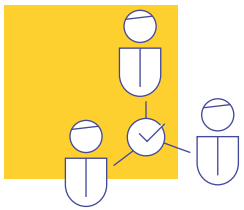
With the current lack of skilled workforce and constantly evolving state of technology, employers face many challenges – they need to find solutions that would reduce onboarding times, simplify upskilling, and narrow down skill gaps. Workforce support helps workers to carry out tasks confidently and autonomously. With every finished job, workers can feel more confident in their skills, encouraging them to enhance their performance further. And in a post-covid and silver tsunami world, it also helps them to learn faster, perform tasks perfectly on the first try, and continuously improve.



Data collection and behavior monitoring

Digital transformation without a defined strategy for collecting data will have a hard time succeeding. Data collected by IoT-enabled devices and software is crucial in measuring progress and identifying bottlenecks.

Collecting data grants supervisors visibility into employee performance to further improve operations and training. Poor outcomes were often falsely blamed on human performance since approximately 80% of mistakes in factories occur when a human element is involved. However, such mistakes can be easily avoided. Based on data, processes – and training materials – can be tweaked so that workers will avoid making the same mistakes in the future.



Encouraging collaboration

As we mentioned before, collaboration is an important stepping stone to efficient onboarding and reskilling. It can be supported through various channels, such as remote AR video calls, newsfeeds or chatrooms. Giving workers the opportunity to interact with one another allows them to solve issues together and learn from peers. This helps to take a load off experts (who there is a lack of) and encourage continuous learning. When a worker does not know how to finish a task, they can simply shoot a text or a picture and receive help from someone who's already dealt with it.

Many organizations also decided to decentralize the creation of instructions by enabling their workers to give feedback on current practices and document their tasks. This way, they can participate in improving and building an organization's knowledge base and retention of tribal knowledge.

A collaborative platform where workers interact with their peers, experts, and management can also enhance their sense of community. Such culture makes employees feel more connected to their role and place of work and can help attract new candidates.

Find new approaches to learning

Everyone knows learning is more fun when done on your own terms outside of the formal atmosphere of classrooms. On-the-job learning is the answer. Workers can learn through real-life use cases instead of reading complex diagrams from paper manuals and getting overwhelmed. This can be done through various tools, such as standardized step-by-step instructions, micro-video lessons, or AR calls.



Digitalized standardized work instructions

Standardized work instructions collect the best possible practices that are developed to adhere to various standards, certifications, and requirements. Every worker performs a task in the exact same way every time, which ensures quality expectations are being met.

Usually, they are stored within a knowledge management software that helps with knowledge retention and makes instructions easy to update – which is important, as more than 70% of manufacturers use instructions that are outdated.

Multimedia such as images, animations, or videos keep employees on track and make training and reskilling faster. They can go through the entire process independently, and at their own pace, anywhere they go. Some solutions even enable to record work operations and troubleshooting on video, making it even easier to capture and replicate processes or maintenance in the future.

Augmented reality

Augmented reality allows real-life settings to be overlaid with 3D virtual objects. It does so in real time and may also include video, infographics, sounds and other types of media. In manufacturing, where the daily tasks include putting together thousands of tiny pieces in exact order, such technology is especially helpful. A study by Lockheed Martin claims that after the company started to use AR in assemblies, the time required to interpret instructions was reduced by 95 % and overall training by 85 %.

Another important use case of AR is remote video calls in field service. In case of complex issues, experts can offer advice and draw right into technicians' view, showing what exactly needs to be done without traveling to the location. This way, organizations can take significant load off experts, maximize their productivity, and benefit from their accumulated knowledge. Furthermore, these operations can be recorded and reused for training purposes, so no step is overlooked or forgotten.

AR calls can help with workforce re-skilling, faster onboardings, and continuous improvements. Workers learn and solve issues in real time. They can follow expert instructions and even carry them out with their hands-free – if using wearable technology. Furthermore, solutions can also come with the machine and spare parts recognition identifying what needs to be fixed or replaced. This ensures that less-experienced workers can build up their skills and perform well.



Prioritizing employee satisfaction

Industry 4.0 is about eliminating unnecessary costs and repetitive tasks. However, the times when profits and equipment were considered more important to success than satisfied workers are long gone.

It is just as crucial to create an environment that can bring value to the new generation of employees seeking purpose in their work. Autonomous workers with a certain level of responsibility can take pride in their skills and feel comfortable tackling any issue that comes their way. With continuous learning, there is always an opportunity to grow and expand their knowledge.

Furthermore, the younger generations' lives are defined by technology – it is not surprising they expect their work environment to reflect the current standards of technological development. If organizations stick with outdated processes that don't support mobility or ease of use, it is more likely that the best candidates and employees will try their luck elsewhere. All processes - training included - should reflect current technological trends and show employees that manufacturing or maintenance are modern and attractive fields worth working in.

Closing skill gap for good

Thousands of retiring workers, never-ending technological development, COVID-19 restrictions, and outdated training methods. At the moment, closing skills gap might seem like too big of a challenge to solve.

However, with digitalization and innovative long-term solutions, it can be done. Smart knowledge management, efficient training, and workforce support ensure the precious expertise of your organization will be preserved for generations to come. And besides boosting your operations and production quality, it will also make the lives of your workers a lot easier.

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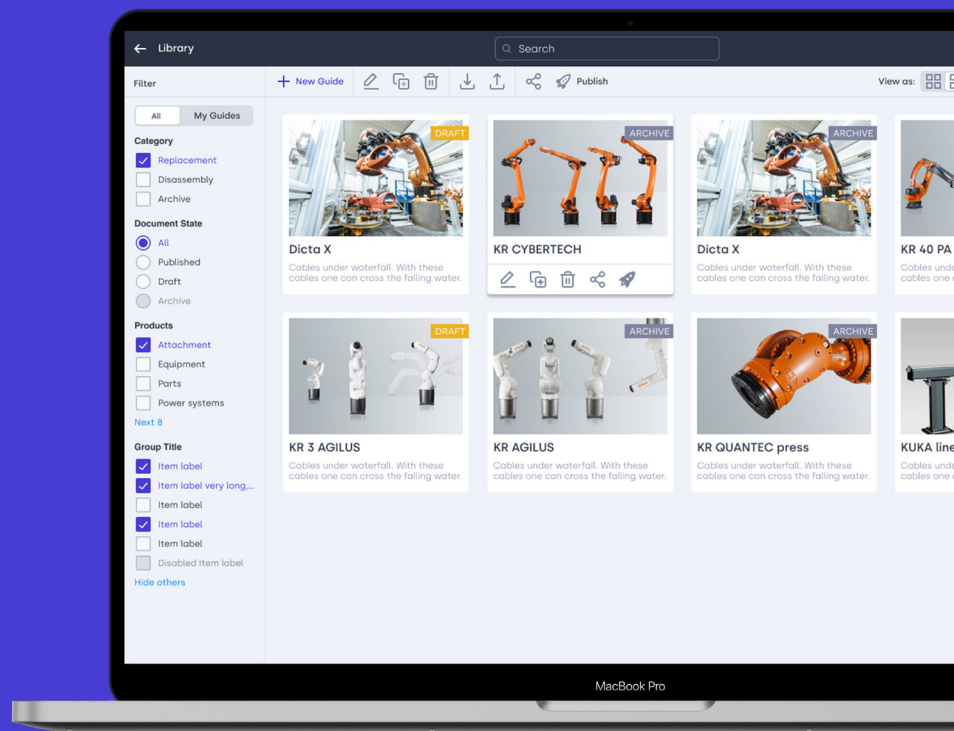
So – are you ready
to take the first step?

If you are interested in fighting the silver tsunami, resco.Houston might be the right solution for you. resco.Houston is an intuitive knowledge management application that will help you retain expertise and share it among your workers. All tribal knowledge, guides, manuals, and AR video calls in a single package.

Empower your workers with accessible expertise and collaboration. Make your training and reskilling faster and more efficient. Build a strong and agile workforce resilient against disruptions.

[Find out more about resco.Houston here.](#)

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