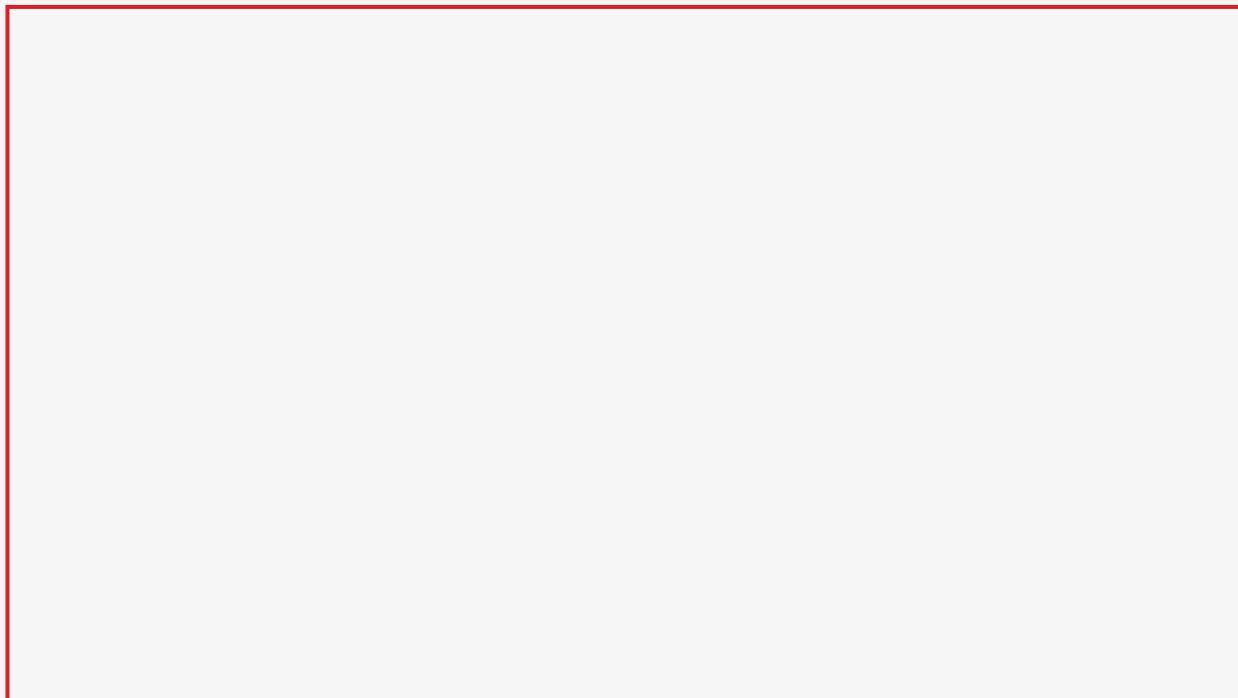




# An Infrastructure for Lifelong Learning

Your business needs more than “culture change”  
to thrive in a technology-driven economy.  
Here are 7 steps to getting started.



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# Introduction

In 2013, Oxford University economists Carl Benedikt Frey and Michael Osborne sent shockwaves through a range of industries by releasing a [report](#) predicting that 47% of U.S. jobs were at risk of “computerization.” The pair had analyzed hundreds of job types and determined that many could easily be replaced by software and computers. The implications to the economy were massive, from the local to the global level.

Economists going back to John Maynard Keynes [in 1930](#) have warned about the threat of automation to existing human-performed jobs, but this new report detailing the type of roles, scale, and impending timeline created rising anxiety across the world. From an employee’s perspective, the report raised questions about [whether one’s job would be around](#) in the near future. Corporate executives had to consider whether and how to invest in compelling new robotics and artificial intelligence (AI) technology. Lastly, global governments increasingly debated and experimented with new ways to ensure their citizens had access to a [“basic income.”](#)

More recently, in 2018, the corporate world breathed a sigh of relief as the Organization for Economic Co-operation and Development (OECD) released a [report](#) that delivered what seemed to be a less dire prediction: “While only 14% of jobs are ‘highly automatable’ (i.e., could be lost because of automation), one in two jobs are likely to be ‘significantly affected by automation.’” Because the OECD report broke down the vast number of jobs in a more detailed method, many economists and business leaders agreed that these discoveries held more weight.

The OECD findings raise a significant challenge that most corporate leaders aren’t prepared to face: If as many as half of jobs are likely to be “significantly affected” by automation, employees in countless industries will need to catch up to the new tools, technologies, and ways of working that automation bring to bear.

To solve for this rising skills gap, corporate leaders must dramatically increase and accelerate their planning for and investment in cultivating talent, continuous education, and professional development.

## Cultivate an Infrastructure for Lifelong Learning

General Assembly’s team has [worked with hundreds of large organizations](#) around the world, including more than 40 of the Fortune 100. Our experience has revealed the many ways companies struggle to implement an impactful talent development agenda that gives teams the skills they need to power innovation and success.

When introduced to the relationship between talent development and continuous education, executives at most large companies gravitate toward the idea of a “culture change.” They presume that fostering a culture that values and emphasizes learning will spur an investment (and interest) in training. One chief learning officer of a global professional services firm speaks often about the need to create “a thirst for knowledge” across her organization to launch successful transformation.

While not incorrect, this notion is hard to turn into a plan of action. Organizational culture, especially in global workforces comprised of hundreds of thousands of workers, can take years, even decades to meaningfully change. Changing culture implies transforming deeply ingrained habits, unconscious biases, and many other behaviors and practices.

Instead, we advocate for the creation of an infrastructure to underlie the move toward lifelong learning. As opposed to the nebulous notion of culture, infrastructure is objective, observable, and operational. We believe a strong infrastructure is significantly more achievable and practical, and can lay the scaffolding on which culture will thrive.

## Why Lifelong Learning?

The concept of “lifelong learning” is not new. The United Nations Educational, Scientific and Cultural Organization formalized the idea in 1972 and recognized that education should be universal and lifelong, and proposed that member states adopt it. More recently, respected trade publications like [The Economist](#) and [Harvard Business Review](#) have discussed the importance of skills-based training well into an individual’s career as a bulwark to rapidly changing business practices and the threat of automation on jobs.

Today, there are two main reasons why we at General Assembly believe it’s imperative to aggressively advance and invest in lifelong learning.

### 01 Companies need skilled talent to keep their teams competitive.

On the demand side, the pace of business evolution driven by technology continues to accelerate. Large organizations in fields as varied as consumer beauty products, heavy industrials, professional services, and packaging are at risk of losing significant market share to more nimble tech-driven challengers. Because of this, they are hungry for talented data science professionals, software engineers, user experience designers, and works in other technology-reliant fields.

### 02 A vast variety of effective training programs are now available.

On the supply side, traditional talent sources such as universities and colleges have failed to adapt their programs to keep pace with the demand for new skills and abilities like data analysis, web development, and digital marketing. Instead, programs like “coding bootcamps,” assessment-driven online learning, apprenticeships, and other creative approaches to learning are offering viable pathways for employees to reskill and upskill for today’s most in-demand roles.

Against this backdrop, it’s vital that large organizations take matters into their own hands by implementing corporate training programs.

The following is a playbook for learning and development managers, HR leaders, and any professional looking to create clear pathways for growth. We present a step-by-step process for how companies large and small can:

- Design and structure their investments in professional development programs for employees.
- Narrow their workforce skills gap through innovative training solutions.
- Create productive pathways for roles that are at risk of being significantly affected by automation.

We believe that when building an infrastructure (as opposed to creating a culture), the seemingly daunting task of preparing a global workforce for today’s pace of change will become significantly more achievable.

## Case Study

### Financial Services Giant<sup>1</sup>

In February 2018, Lloyds Banking Group, a large financial services company in the United Kingdom, [announced](#) a £3 billion investment as part of its business transformation plan. At the time, Group Chief Executive António Horta-Osório emphasized the investment in people's skills by stating: "Importantly, the success of our transformation will depend on our people. We will, therefore, significantly increase our investment [in] developing in-house capabilities and increase training hours by over 50% compared to the previous plan focusing on the key skills our workforce will need for the future."

When executed effectively, these investments bear real fruit. Rina Gohel is a product manager on Lloyds' Digital Services team who enrolled in a one-week data analysis course through the company. Since completing it, she's seen immediate impact on the job. "Previously, when confronted with a difficult problem I would say, 'I don't get it. I don't know who to involve,'" says Gohel. "Now I can say, 'I need these two people to talk to each other about how we join these tables in order to get the data we want, to create the dashboard we need.'"

As opposed to the nebulous notion of culture, infrastructure is objective, observable, and operational. We believe a strong infrastructure is significantly more achievable and practical, and can lay the scaffolding on which culture will thrive.

# Step 1

## Create a rallying cry, and repeat it often.

Developing a corporate learning program is a rare chance to build excitement around a positive initiative at your company — take advantage of it! Too often, organizations underestimate the value of a well-designed brand, message, and communications campaign. Instead, employees hear about opportunities to grow their career via humdrum slides and emotionless calendar invitations.

When designed and executed correctly, an internal rallying cry can be the difference between passive attendance and active mobilization of a workforce. “Winning hearts and minds” is how one chief digital officer of a major UK insurance company describes it, and it’s likely not a coincidence that this firm’s reskilling programs are consistently oversubscribed, with participation from senior managers and frontline employees alike.

We recommend three steps to get this crucial starting point right.

### 01 Admit there’s a problem.

In any organization — particularly large ones with structure, hierarchy, and performance reviews — it can be scary for employees and executives to admit they don’t know something or lack a specific skill. In this environment, honesty is refreshing. Leaders must clearly and openly articulate a specific capability gap in the organization, its impact on the future of the business, and an urgent call to address it.

#### Walk the Walk

 **Problem:** A marketing leader at a global electronics company stated plainly to his team: “Our media spending in digital channels is lagging the industry, and we need to improve.”

 **Action:** He announced an investment in a global upskilling program for 750 marketers, kicking off the program by taking a skills assessment and the first few online lessons himself. This clear demonstration helped galvanize the broader population and spur participation.

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### 02 Internally brand the solution.

An investment like this should not be seen as business as usual, because it isn’t. Program names that capture ambition and positive direction are powerful stimuli for employee participation and enthusiasm. Simply inviting employees to a generic “training session” wastes the potential for virality and internal reference.

#### Branding at Work

 **Problem:** Consulting firm Booz Allen Hamilton wanted to get the word out about its company-wide effort to train 5,000 new data science professionals.

 **Action:** The company internally branded the initiative as the “Data Science 5K.” This memorable rallying cry captures the goal of the initiative as well as the scale and energy needed for its success.

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### 03 Focus on evolution, not transformation.

The term “digital transformation” has become a catchall for investments and initiatives designed to modernize a company’s operations and offerings. However, in the context of a continuous learning strategy, “transformation” fails to capture the lifelong element of this ever-evolving infrastructure.

The right learning framework today might *not* be the right framework in 10 years, and a “transformation” implies an end state. Today’s tech-driven economy calls for constant iteration and the capacity and commitment to continually improve. Leaders must vocally highlight this expectation, and combat the notion that a one-time training session can prepare employees for the future.

To promote this mindset of continued growth, learning pathways must be designed in a way that makes it possible for employees to regularly participate — something with which two- and four-year degree programs are far out of step with in terms of employee availability.

#### Evolving Training Plans

-  **Problem:** At one global insurance company, the senior management team wanted to ensure that the organization’s training efforts link up to the latest picture of where its skills gap lies.
-  **Action:** The team explicitly incorporated research updates at regular milestones. In addition, the company’s strategic workforce planning team plans to meet regularly with the operations and digital team to coordinate reskilling efforts based on the latest information and projections.

# Step 2

## Conduct a skills gap analysis.

**A skills gap analysis exercise helps to quantify the number and type of roles, functions, and departments that are most affected by changes in the business — and how. The task of mapping your skills gap can be daunting, but it’s an important step to ensure that time and resources are appropriately allocated to reskill and upskill the right people for the right roles.**

In our experience working with hundreds of organizations, this step is consistently where leaders become paralyzed. We have witnessed numerous human resources teams struggle to quantify the concept of a skills gap into a specific list of skills that a given employee needs to build. This is driven by a number of factors, most prominently:

- A lack of clear definitions for a specific role.
- Poor communication between HR and individual functions.
- The constant state of flux in which digital skills tend to be in the first place.

We recommend a “done is better than perfect” approach, which emphasizes speed and directional accuracy over comprehensiveness and perfection. This enables executives to quickly show a positive impact in the form of increased productivity, and lower hiring and churn costs.

### How to Conduct a Skills Gap Analysis

Get started with a skills gap analysis using our simple version of the exercise, outlined in the following steps:

#### 01 List your functions.

Using a few sets of empirical data (e.g., your own job postings, industry employment statistics, relevant news articles, etc.), build a list of the top five job functions that you believe to be critical for the future of the organization.

#### 02 Conduct interviews to validate.

After prioritizing your top job functions, interview at least three key stakeholders in each team or function. In an instance where a given function may not yet exist but you believe it needs to, consider relying on external industry data or opinions from an expert consultant.

Ask consistent and objective questions to understand the extent to which it is perceived that a given skill is a gap or weakness on the team. Suggested prompts include:

- List discrete tasks that your team struggles to complete or relies on external help to execute.
- In your last major product or deliverable, what was the most significant bottleneck?
- Which of your open jobs stay open for the longest time?
- Thinking back to your last budgeting or planning meeting, what were some of the most difficult questions or challenges you received from your CFO, CEO, or relevant executive? What skills would need to be present to allow you to better answer these?

### 03 Estimate quantity.

Based on your collected data and interview responses, make educated guesses about the target operating model for your workforce in terms of measurable goals. For example, a global bank realized that if it wanted its share of revenue from digital services to increase from 10% to 30%, it needed to triple the size of its software engineering team. It's a crude guess, to be sure, but it set the company on the right track.

### 04 Deploy employee skills assessments.

Defining “good” in terms of the skill sets required by roles such as data analyst, user experience designer, software engineer, and digital marketer has been a challenge for business leaders who are largely unfamiliar with the technicalities of the fields. In fact, recent findings from our [Marketing](#) and [Data Science](#) Standards Boards point to a significant lack of clarity in the skills and nuances that dictate growth and career paths in their respective industries.

This is why [data-forward assessments](#) that measure adeptness in key tools and techniques are important in determining the best learning solution for your unique team. We recommend seeking out objective skills assessments that are relevant to your field, and deploying them across your workforce as a way to benchmark the skills your teams have today and track the improvement over time.

Whichever version of a skills gap analysis you pursue, the most important point is to have as objective as possible a benchmark from which to launch your reskilling programs and infrastructure.

We recommend a “done is better than perfect” approach, which emphasizes speed and directional accuracy over comprehensiveness and perfection.

# Step 3

## Offer multiple training levels and modalities.

Any infrastructure for training should take into consideration the different ways people learn, as well as the requirements and constraints of the organization, including learning objectives and outcomes, geographic distribution, and available funding.

### Training Levels and Intended Outcomes

All learning programs should have a specific purpose or outcome. Knowing what you are trying to accomplish will inform the level of training required in terms of number of hours, audience, admissions process, and format.

There are many ways to conceptualize an outcome: Sometimes it's a tangible change, while other times it can be a qualitative evolution. General Assembly's education experts observe four primary intended outcomes and corresponding training levels, described below.

#### 01 Shifting Mindsets

Introducing a new tool, skill, or function to an organization is not just about acquiring new technical ability. It also involves incorporating the mindset and ways of working associated with implementing this ability. As this level of training tends to be less technical and more focused on a senior management team, the duration tends to be no more than a day or two.

##### Upskilling for Executives

 **Problem:** The executive team of a global car rental company knew that the organization needed to better use its data, improve user experiences, and implement technology more effectively. However, this required more than funding a technology or design team. Instead, executives themselves learned new business approaches around leading in today's tech-driven world. This included training in data-driven decision-making, being open to experimentation, and using partnerships and acquisitions to drive innovation.

 **Action:** The company participated in General Assembly's one-day Digital Immersion program, plus an action-planning live online workshop 60 days later. Afterward, participants reported that the executive team is more comfortable with the implementation of new technology and tools.

#### 02 Building Vocabulary

Establishing a common language for a large population gives employers a shared understanding of relevant terms and trends. Because this content is high-level and broad, training can be six to 10 hours, spread over weeks or months.

##### Seamless Cross-Team Communication

 **Problem:** The energy drink manufacturer Red Bull needed its field marketing teams to more seamlessly incorporate digital channels into their strategy. While a central Digital Services team existed to build digital products and implement new tools and technologies, it was important for the entire marketing team to have a basic understanding of why these tools and technologies were important, and the business goals in service of which they could be used.

 **Action:** Red Bull launched an online digital marketing vocabulary course with General Assembly. The resulting increase in “digital fluency” has helped ease communication bottlenecks between the two teams.

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### 03 Upskilling

Learning strategic tools and techniques is often all an employee needs to be more effective in their work. This lets individuals continue to grow within their role, increase their responsibilities, and potentially become candidates for a raise or promotion.

#### Product-Building Efficiency

 **Problem:** A UK-based insurance company wanted to enable its I.T. team to implement modern product management principles including user interviews, product roadmaps, and rapid prototyping to increase products and features’ speed to market.

 **Action:** The company sent members of this team to a series of one-week intensive product management courses and has reported new behaviors, confidence, and efficiency in participants’ day-to-day work.

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### 04 Reskilling

This [massive training overhaul](#) helps to convert an employee from one job to another. It trains people currently languishing in legacy roles at risk of becoming obsolete and educates them in topics that your organization needs to thrive. These learning experiences tend to be a few months in duration with a careful and robust admissions process to ensure the selection of the right participants.

Given the depth of learning needed to radically transform a career, our recommendation is that participants complete 400–480 hours of blended training (training that mixes self-paced, online media with in-person, appointment-based instruction). These programs should be guided by assessments and include hands-on projects that simulate what it’s like to apply new skills. This helps to ensure participants are able to jump back into the workforce as effective contributors. We highly recommend pairing the training with internal mentorship so graduates have realistic, reachable opportunities to grow into their new role.

#### Diversifying Disney

 **Problem:** The Walt Disney Company was struggling to diversify its technology function and feature more women in technology roles.

 **Action:** The company launched [CODE: Rosie](#), led by executive Nikki Katz, to put dozens of female employees through a three-month software engineering course delivered by General Assembly. Through this program, the company is diversifying its tech team while also providing compelling internal mobility for its employees.

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## Key Training Modalities to Consider

A simple Google search shows that the bulk of the debate around modality and effectiveness in professional development oscillates between whether learning is offered online or in a physical classroom. We take a different view: The most critical driver is whether the experience is instructor-led (synchronous) or self-paced (asynchronous).

While it’s easy to assume that in-person courses are synchronous and online courses are asynchronous, today that doesn’t necessarily have to be the case. We’ve found

great success creating live, instructor-led courses online for anything from hour-long workshops, to 10-week part-time courses, to 13-week full-time courses.

Let's examine some of the key modalities you should consider.

## 01 Instructor-Led

This is a synchronous course in which participants attend on a set schedule. Instructor-led courses are extremely effective at creating a communal learning experience while also ensuring participants are held accountable for completing the required work.

There are two ways learners can engage with an instructor-led program, in person or online. Keep in mind, in-person training is not necessarily better or worse than online training, but one modality may be a better fit for your team than the other.

### In Person

This format involves a physical classroom with participants attending together for a fixed period of time.

#### Consider this modality if:

- You have a critical mass of participants in a single location who are in need of the same training. (We recommend a classroom size of 25, and no more than 30.)
- Your team is most comfortable with a traditional educational setting.
- A concentrated, “no distractions” form of training is an important factor to a potential learning program.

### Online

Instructor-led online courses are a great alternative to having employees travel to one location to learn. Ideally, these courses are highly interactive and engaging, and faithfully recreate the collaborative in-person classroom environment.

To determine whether an online experience is able to achieve this, we measure a number of metrics. These include the number of messages sent per person during the class in the dedicated chat tool (the higher the number, the greater the engagement), value for time spent, attendance rates, and satisfaction scores. We then compare these metrics with those from in-person courses to evaluate success.

#### Consider this modality if:

- You need to upskill or reskill a team that is distributed across many locations.
- Your available funding doesn't allow for travel.
- The topic of the training is less of a team-based skill and more of an individual one. For example, product management tends to be highly team-based, whereas many data analysts are more productive as individuals.

## 02 Self-Paced Online

This is an asynchronous course in which employees can participate at different times based on their unique schedules. It offers a flexible format that allows even the busiest of team members to complete lessons at their own pace.

When considering a purely self-paced online course, it's also important to realistically consider completion rates: With great flexibility comes great excuses for not doing the work. Creating an engagement strategy keeps learners on track with lessons. Consider having a dedicated team think through and manage the learning experience

to drive engagement rates higher; a little accountability support goes a long way. This team can develop training timelines, create incentives for participants, manage communications with learners, and foster a sense of community even with the asynchronous nature of the course.

**Consider this modality if:**

- Your team members need flexibility when it comes to learning schedule, but are also self-motivated enough to complete lessons on their own.
- You're looking to upskill a distributed team. Participants in the same location can then complement lessons with in-person discussions.

### 03 Blended

Sometimes, having both modalities is best. A blended learning model combines both asynchronous and instructor-led learning, taking the best aspects of each: flexibility, efficacy, and accountability.

In our experience, blended formats also present an opportunity to raise employees to the same competency level prior to the start of in-person or live instruction. Through short online lessons, class participants who need basic information and tools can get up to speed and build confidence before embarking on an ambitious reskilling journey. Having everyone on the same page also saves valuable class time and lowers training costs.

Another possibility is to supplement the classroom experience with additional asynchronous online materials that can both help participants who need remediation and challenge students who have a firm grasp on new knowledge.

**Consider this modality if:**

- Your employees need training at any level! Blended courses are adaptable, both on a skills level and logistical program rollout level.

## Countdown to Transformation

How long will it take to transform your team?

Training Level	Timeframe	Recommended Modalities
<b>Shifting Mindsets</b>	15 hours over two days	In person
<b>Building Vocabulary</b>	Six to 10 hours over three to 10 months	Self-paced online
<b>Upskilling</b>	40–60 hours over five to six days	Blended, in person, or live online
<b>Reskilling</b>	400–480 hours over three months	Blended, in person, or live online

# Step 4

## Design and execute an “always on” internal marketing campaign.

**Strategic internal messaging is key. Building from Step 1, a successful infrastructure for lifelong learning involves a robust and sustainable internal marketing campaign to ensure demand, virality, and completion of relevant training programs. Like any consumer marketing campaign, this aims to generate a significant and steady funnel of interested, enthusiastic potential learners.**

Here are several things to consider when promoting this opportunity throughout your organization.

### 01 Emphasize a business benefit versus an HR requirement.

We've found that [upskilling](#) and [reskilling](#) programs tend to be less successful when they're perceived to be coming from outside the function for which they are intended — for example, an HR representative delivering training updates to the technology team. While the HR team must play a crucial role in ensuring high-quality delivery and consistency of any training initiative, we recommend that the bulk of the messaging and communications about it come from the leaders of the function for whom it's intended.

In one case, when a global electronics company launched a massive upskilling effort for its marketing function, the CMO produced a video and email series to announce the program and position it as a critical “enabler of the business.” This helped achieve an over-90% completion rate for the training.

### 02 Integrate with existing communications.

Too often programs like these fail to leverage existing channels for communication, including performance reviews, intranets, and internal social media channels. Consider making a list of all relevant internal communications methods, then choose the right mix depending on the type of message to be shared.

Here are specific recommendations that we've seen gain traction.

-  **Video:** Produce a video with your executive team to announce the program. This is particularly impactful in a global organization where many employees don't interact directly with the executive team. A video featuring executives sends a strong signal of the importance of this initiative and infrastructure, and creates a connection between the strata of an org.
-  **Email:** Email continues to be a great tool to drive ongoing engagement and participation. One global cosmetics company created an internal newsletter about its upskilling program, regularly featuring employees who were achieving the greatest impact from their learnings. Use a blend of styles and formats for email to help ensure that employees don't tune them out in the midst of a busy day. Options include HTML newsletters with branded graphics, text-only emails personalized to the user, and emails with attached slide presentations that provide more context and content on a particular area.

 **Chat:** Maintain a chat solution for employees to directly reach out to a point of contact with questions about the training program. This can be done through existing tools such as Slack, Yammer, or whatever your organization uses.

We do not recommend creating a separate portal or messaging service to communicate about the program. For both operational and branding reasons, it's important that a strong infrastructure for lifelong learning seamlessly integrates with employees' day-to-day communications and interactions.

### 03 Gamify and compete.

Leaderboards are significantly effective tools in incentivizing participation and engagement. They're also great for spurring virality and quantifying learning — both important components of a strong learning infrastructure.

At one global skincare company, the chief digital officer enthusiastically shared assessment results and learning completion rates, compared internally by region and brand and externally against an industry benchmark to spark healthy competition. Directly after each time he shared these results, completion and engagement rates soared.

Like any consumer marketing campaign, strategic internal messaging aims to generate a significant and steady funnel of interested, enthusiastic potential learners.

# Step 5

## Define a robust admissions process.

Once organizations have identified the skills they want to assess, they need to be willing to invest the time to generate real change in their employees' skill sets. In the constant push for higher productivity and greater results, it's hard to give up hours, days, and potentially weeks of an employee's time to training. It's important to leave a long runway for planning a training program, so that employees can complete or offload work, and ready themselves for the experience.

Follow these guidelines to create an effective admissions strategy.

### Establishing Managers' Support

No matter the format, it's crucial to create manager buy-in so participants have the headspace and moral support they need to dive headfirst into learning new skills without worrying about their standing in their role. Decision-makers and high-level stakeholders must clearly communicate the details and goals of the program, so managers can understand the positive impact it will have on their team and the time commitment necessary for success. Subsequently, manager presence at presentations and project demos helps participants feel supported, while showing managers firsthand their employees' new skills.

### Developing a Scheduling Strategy

Whatever the format, ensure that participants are able to focus fully on the skills they're learning, rather than trying to juggle existing work responsibilities and new skills training. Attendance and project completion are critical to success, so if participants are sent away on travel or given too many tasks, for example, their learning and retention could be in danger.

How organizations schedule training depends on several factors including workflows, training levels, and company objectives.

### Short-Form Intensive Training

Companies typically take one of two approaches to this route: Some opt for shorter, intensive programs, while others would rather have people commit a few hours a week for a longer span of time, with trainings often hosted during the workday. While either option may slow normal operations for a few days or even weeks, it's a small price to pay for skills that will boost productivity in the long run.

Deciding between the two tends to come down the rhythm of work at your organization. If participants tend to work on a project-to-project basis, then compressing training experiences into a short, intense window in between projects is likely the most practical. However, if employees work consistent hours and schedules throughout the year, it can make more sense to stagger a course across several weeks with, say, one day per week being dedicated to training.

From an instructional perspective, each approach has pros and cons. Research shows that spaced learning — learning over a span of time — is more effective because it allows employees to internalize and apply what they learn in a regular rhythm. However, depending on your objectives, the cost and speed benefits of intensive learning may outweigh the potential for some level of lower retention.

### Long-Form Immersive Training

In many [reskilling](#) programs, participants leave their roles completely in order to participate in full-time “bootcamps”: immersive learning experiences that compress practice and theory into a span of weeks or months. The goal in these scenarios is usually to prepare an employee for a new role. During that time, their full-time responsibility is learning and mastering the skills to be successful in the next phase of their career.

Here, it’s important that there’s a clear plan established for where the participants will be placed after the program and that their future managers are part of this plan. (Learn more about this on page 19.) For example, at the 2018 World Economic Forum in Davos, Switzerland, Guardian Life Insurance CEO Deanna M. Mulligan [described](#) how reskilling is transforming her team, saying, “We’re doing some exciting things. For example, we’re bringing in General Assembly to turn our actuaries into data analysts.”

## Defining the Admissions Process for Advanced Training

Having graduated more than 40,000 full- and part-time students across [20 campuses](#) since we launched in 2011, General Assembly has honed a robust admissions process. Having a well-designed admissions process:

- Helps ensure that the right training is directed to the right people.
- Brings greater efficiency to the overall initiative.
- Significantly increases the impact of the learning experience by setting participants up for success before they even begin.

It’s worth highlighting that the intensity and rigor of the admissions process should increase with that of the training itself. For example, a five-hour course aimed at building an understanding of common technology terms can likely be deployed at scale without the need to admit people one by one. However, a demanding reskilling course that aims to convert an employee from one job to another should ensure that each participant is carefully selected and prepared.

The actions below will help make sure you pair the right participants with the right upskilling or reskilling experience.

### 01 Hold information sessions.

As part of the marketing strategy described in Step 4, employees should be invited to information sessions for particular topics and programs. Depending on the target operating model you’ve identified as part of Step 3, you can determine whether attendance at these sessions should be mandatory for all employees, recommended for particular employees, or open to anyone interested.

### 02 Administer an initial skills assessment.

Any employee selected for a particular training should complete a survey or assessment to gauge their current knowledge level. Again, the rigor should match the ambition. Simple workshops to introduce a new tool may only require a short behavioral survey to understand how employees perceive their level of knowledge in a given field; more intense courses need a robust skills assessment. This could be part of your skills gap analysis or a separate endeavor.

### 03 Require a technical challenge or exercise.

Depending on the nature of the course, it might be relevant to require an exercise or project to add another dimension to understanding readiness, motivation, and aptitude. Take the Saudi Arabian charity [MiSK's efforts to reskill Saudi nationals](#) into technology and data science roles, for example. It was critical to assess incoming abilities, as many applicants likely expressed interest because the course was free, not because it was right for them. All interested parties had to complete pre-work, like a short exercise to build a [working traffic light in Java](#), before being granted admission. These exercises help gauge both ability and motivation.

### 04 Conduct an interview.

For more intensive courses that will entail a change in lifestyle and working with teams over time, it's important to validate that the participant will fit in well in the class. We recommend a short, 15-minute behavioral interview to ask questions about working habits, teamwork, and lifestyle.

### 05 Assign pre-work.

To make the most of live online or in-person classroom time, we recommend assigning a healthy amount of pre-work made up of online lessons, reading material, or software demos. This serves a few important goals.

- a. It ensures that basic concepts and definitions are imparted prior to class beginning.
- b. It helps bring participants up to a more consistent starting point. (Those with a little more experience can get away with less pre-work, while absolute beginners likely need to complete more.)
- c. Completing pre-work is an important proxy for motivation and grit.

For intensive reskilling experiences, General Assembly education experts have observed that motivation is the No. 1 factor behind successfully completing the course. For example, assigning 80 hours of pre-work (which is what GA's [Web Development Immersive](#) candidates must complete) is an effective way of validating that the students are indeed motivated to learn.

A final point to note in this step is that while the admissions process must be robust, it does not necessarily have to be exclusionary. For example, instead of rejecting a prospective student from a program, you could advise them to complete a series of other courses or workshops to prepare them for something they aren't ready for at present. In the context of upskilling a global workforce, it is common for employees to begin at a variety of starting points. A good admissions process will ensure that each one can find the right position from which to begin.

# Step 6

## Build a clear re-entry and skill application program.

The next step in creating an infrastructure for lifelong learning is to consider the environment your employees will return to with these newly gained skills. How will they use them in their role? How can this new knowledge be leveraged to elevate the team?

A good rule of thumb is that program graduates and participants should have an opportunity to apply what they've learned within 30 days of completing the program.

In line with the levels of training through which employees have gone, we recommend the following structures to guide implementation:

Level	Potential Outcome and Application	GA Client Example
<b>Shifting Mindsets</b>	Observed examples of specific, new behaviors	A U.S.-based retailer reported an increase in the number of experiments funded by the executive team, demonstrating its embrace of a more nimble business approach that many large companies are striving for today.
<b>Building Vocabulary</b>	Reduced reliance on a specialist team	A global electronics company reported that support tickets to their “digital expert” community declined as a result of a global upskilling program, signaling that more employees were able to answer basic questions without calling in the experts.
<b>Upskilling</b>	More frequent use of a new tool or process	A UK-based insurance company reported that program participants were more consistently building new product roadmaps as a result of a one-week intensive product management course.
<b>Reskilling</b>	Open jobs filled	A U.S.-based bank was able to fill software engineering positions by hiring liberal arts college graduates and reskilling them into junior software engineers.



Achieving any of these new behaviors takes focus and dedication. To power an effective re-entry and skill application program, be sure to:

**01 Set expectations.**

Communicate the desired outcomes as part of the marketing strategy described above, and do so often. Reinforcing these goals repeatedly will help set expectations and bring the goals to life.

**02 Establish a steering committee.**

The CEO, CHRO, and functional leads must commit to meeting at least once a month to focus on the outcomes of the training infrastructure. The expectation of this executive oversight will help drive the outcomes.

**03 End each training program with a goal-setting exercise.**

Each course, workshop, and class should feature a formal goal-setting exercise wherein participants are coached to define and commit to tangible goals with a realistic timeline. Taking ownership over these outcomes will make them easier to achieve and more applicable to the employee's individual context.

Program graduates should have an opportunity to apply what they've learned within 30 days of completing the program.

# Step 7

## Identify and measure clear KPIs at every step.

A proactive approach to measuring the outcomes and impact of your training investments is a no-brainer — it's important to know what worked and what didn't to inform future education initiatives. Senior managers must work closely with HR to establish clear, measurable goals, known as key performance indicators, or KPIs, and hold them accountable for frequent impact reports.

Keep track of the following metrics, in order of priority:

### 01 Revenue and Strategy

The most critical metrics for a truly sustainable lifelong learning infrastructure must be tightly aligned with the business's revenue or strategic goals.

Senior managers should only approve training requests in the form of, "Our people lack X capability to achieve Y business objective, and therefore we need to invest in upskilling them." Similarly, they should be wary of requests for funding training that starts with the training description as opposed to the business outcome. "We need funding for a one-week training course," should be met with, "To help reach what business goal?"

For example, a significant portion of a major industrial company's revenue comes from long-term service contracts sold alongside hardware. Equipping teams with data- and UX-driven applications helps them service customers more quickly and identify cross- and upselling opportunities, driving both cost reduction and revenue growth. However, the company's IT team was saddled with legacy applications and skills, and there was a strong need to reskill to achieve this business opportunity. In such an environment, it was significantly easier to fund, measure, and scale the reskilling initiative.

### 02 Behavior and Activity

In designing learning paths and experiences, organizations should agree on a few outcomes in the form of observable behaviors or activities (see Step 6) that a successful graduate might demonstrate, then create a structured (but not too onerous) method to track these behaviors.

For example, a recent course on data analytics had stated that graduates would be able to "build compelling data visualizations for internal presentations," and managers were asked to count the number of these visualizations that graduates then created.

### 03 Knowledge Retention

This refers to the extent to which a participant of a learning experience is able to remember what they learned or did in the class. Quantifying retention is hard, as it can manifest in subtle ways and varies from person to person. Many organizations lack consistent approaches to track it, but the following tools can help:

- a. **Pre- and post-program surveys:** Having students take a pre-program survey can help instructors understand the profile of participants in their class. Redeploying the survey after the course can help organizers better capture the lift in learning.

- b. **Skills assessments:** As described in Step 5, the admissions process, [skills assessments](#) are important tools to gauge current levels of knowledge. Upon completing a given learning experience, these same tools can be effective measures of the retention of that knowledge.
- c. **Manager interviews:** Setting up short sessions with team leads a few weeks after a training or upskilling program can be a useful way to ascertain anecdotal information and sentiment about how the training has impacted team performance and productivity. To ensure the manager is fully engaged, we recommend having live conversations instead of sending out a form.
- d. **Updated performance reviews:** If [upskilling](#) can be explicitly tied to performance reviews, managers can rate team members on specific behaviors relevant to the training. Using the existing infrastructure of performance reviews is a good way to gather the information you need without adding steps for managers and the HR department.

#### 04 Completion and Satisfaction

This refers to the metrics that track whether and how many participants completed a course or learning experience, and what they thought of it. These metrics are helpful for organizers to get a high-level view of the program's scope, which helps inform future decisions regarding the organization's continued learning infrastructure.

Key metrics include:

- a. **Number of participants.**
- b. **Completion rates for specific courses.**
- c. **Value for time spent:** A metric that asks participants to rate the value of the learning experience on a scale of 1 to 5.
- d. **Net promoter score:** A metric developed by the global management consultancy Bain & Co. that tracks whether people would recommend the experience to a friend or colleague. (A simple NPS calculator exists [here](#).) This metric sets a high bar, as it only credits those who rate their likelihood to recommend as a 9 or 10 out of 10, and removes the scores of those who rate 5 and below. This can result in programs that feel as though they went great, but still score a relatively low number out of 100.

# Strategy in Action

## How a major leader in lighting invested in training to accelerate digital growth.

Signify is a business in dramatic transition.

First, it's operating as a startup within a 127-year-old company — the brand, initially called Philips Lighting, was spun out of Royal Philips, the Dutch technology leader, in 2016. Second, its core product, lighting, is undergoing a significant transformation as businesses and consumers alike move to modern LEDs. Like many other companies, it faces the exciting yet daunting shifts affecting all consumer products companies: the rise of eCommerce, digital media, and new distribution models. To combat and take advantage of these shifts, the company is leading the development of connected lighting systems and services to leverage the Internet of Things (IoT).

Against this backdrop, the company's marketing leader, Bill Bien, issued a challenge for his global marketing team: Increase digital media spending to almost double what it is today, in a push for growth and profitability.

### Not Just a Facebook Page

Issuing a challenge is one thing; achieving it another. "The vast majority of our media budget still goes to traditional channels, and consequently that's where everyone is most comfortable. But we were determined to drive this shift for our business," says Bien. Bien and his leadership team were clear that it wasn't going to be enough to simply launch a series of Facebook pages and "check the 'digital' box." "We wanted to make sure digital channels were being considered holistically and from the start, not just added on at the end," says Michel Claassens, Bien's deputy and head of digital marketing and eCommerce.

### Building Digital "Fluency"

Bien and Claassens knew that if their teams around the world were going to have a chance of successfully driving this shift to digital media, they needed to know what they were talking about. This would require a holistic and ambitious skill improvement program.

"We designed a three-level approach: top managers, our local marketing teams around the world, and our digital experts," says Pascal Smits, one of the company's key leaders of its digital evolution and an architect of this initiative.

For senior managers and the digital teams, Signify deployed a series of in-person education experiences that were widely attended and well received. That left the largest group: 680 marketers across 17 countries. The Signify team knew they'd need help. That's when they called General Assembly.

The assignment was a big one: Create and deploy a learning experience that takes a large and talented global marketing team through the vocabulary, processes, and practice of a



modern digital marketer. With such a large team, there were bound to be complexities and challenges.

The GA team worked in close collaboration with members of the training and capabilities functions at Signify, including James Allen, who runs the learning practice for the company. There were three primary steps:

### **01 Assess existing knowledge and skills.**

We deployed Digital Marketing Level 1 (DM1), a proprietary [assessment](#) built in partnership with the [Marketing Standards Board](#). The assessment consists of 30 questions, delivered in a timed environment and covering a range of digital marketing topics including social media, analytics, mobile, content marketing, and more. The assessment results helped us clearly understand what each team member already knew when it came to digital marketing, and where they needed to focus development.

### **02 Launch personalized learning paths.**

Using these assessment results, we created individual learning paths on [myGA](#), General Assembly's online learning platform. Each lesson is designed to clearly and quickly convey important concepts and practical information that participants can apply in their roles right away.

### **03 Run a custom engagement strategy to drive completion.**

A GA engagement manager worked closely with leaders and managers at Signify to produce a communications strategy that actively ensured each participant completed their prescribed learning paths. The strategy included establishing three levels of completion, the first being mandatory. In addition, GA and Signify worked to create exciting announcements, gamified communications, livestreamed classes with external experts, and regular reminders that kept participants actively engaged.

## **Meeting the Challenge**

With strong collaboration from the teams at Signify, the strategy worked: 99% of participants completed their prescribed training, with employees completing more than 20 lessons each, on average. These numbers were significantly higher than even General Assembly's internal benchmarks — a testament to the impact of strong collaboration and support from Signify's central and local digital teams, as well as its HR, learning, marketing, and executive teams.

Marketers around the world have implemented what they learned. "I have totally changed my behavior on social media and I started experimenting new ways in end-user marketing together with sales colleagues, too," says one marketing manager from central Europe.

Participants also spoke to increased confidence and collaboration. "Communication between teams has improved: Colleagues directly ask for digital services by themselves through [our internal digital marketing services function] and not through the digital lead," according to one participant from the Africa region.

A reassessment completed by a subset of the global marketing team also demonstrates the improvement. General Assembly's benchmark for gaining a credential in digital marketing expertise is an assessment score of 18 out of 30. The reassessment results show that the number of participants who achieved or exceeded this level doubled after completing the training.



“We’ve been able to successfully increase our digital marketing spend from 15% to 25% in one year,” says Bien. “I credit the GA education program, along with our other efforts, for educating top managers and our digital teams, with a significant contribution to this. We wouldn’t have been able to achieve this shift if our colleagues around the world didn’t have the confidence and comfort that comes from a high-quality skill-improvement initiative.”

## Looking to the Future

The transformation continues at Signify. As the world leader of the lighting industry, it is leading the industry transformation. It continues to leverage cash from its conventional lamps business, invest in LED innovation, lead the introduction of connected lighting systems and services, and lead the growth of lighting for the Internet of Things. It has connected over 34 million light points — a generic measure to quantify various light-emitting devices — for its consumer and business customers via its consumer Philips Hue lighting system and recently introduced Interact IoT platform. There is still significant room to grow, since there are 26 *billion* light points globally.

Advanced and emerging areas like these will continue to require an infrastructure for lifelong learning for Signify employees, and the company is committed to keep investing in its people to support this. In 2018, the company is continuing to roll out this course when needed. In addition, talent acquisitions teams have a new mandate and benchmark of digital vocabulary and fluency for all new hires. According to Bien, “As we look to the future, topics like analytics, the Internet of Things, and others will rise to the forefront of skill needs for our employees, and we’ll be there to invest in building these.”

# Where Do We Go From Here?

**We believe workforces and organizations are entering one of the most exciting times since the Industrial Revolution. Technology influences countless industries; it makes a profound impact on what it means to work, and where humans should focus their activity.**

When it comes to leveraging technology, proactive organizations will reap the most benefit. A [June 2018](#) article in The Economist concluded: “Clever machines will make workers more productive more often than they will replace them.” For this to become true, however, organizations need to make meaningful investments to prepare employees to better interact with technology and learn the skills they need to maximize it.

To this end, [early research](#) from the World Economic Forum is clear: Reskilling is possible for the vast majority of workers around the world. At General Assembly, we see this possibility become reality every day, and encourage organizations to begin thinking and acting for a new world of work.

# About

General Assembly works with global companies of all sizes — including more than 40 of the Fortune 100 — to solve talent gaps in the skills needed to thrive in an increasingly tech-driven economy. We've engaged with major employers including Capital One and L'Oréal to evaluate, train, and develop their workforces in anticipation of future business needs through [reskilling](#), [upskilling](#), [onboarding](#), and [hiring](#) strategies.

With more than 15 campuses across four continents, GA has served over 40,000 students and worked with more than 10,000 hiring partners to date. We've been widely recognized for breaking down barriers to employment, diversifying the workforce, and closing the skills gap. The company was named the Most Innovative in Education by Fast Company in 2015, and landed in the Top 100 on Deloitte's 2016 Technology Fast 500 rankings. For more information, visit our [press room](#).

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