Chair for Strategy and Organization
TUM School of Management
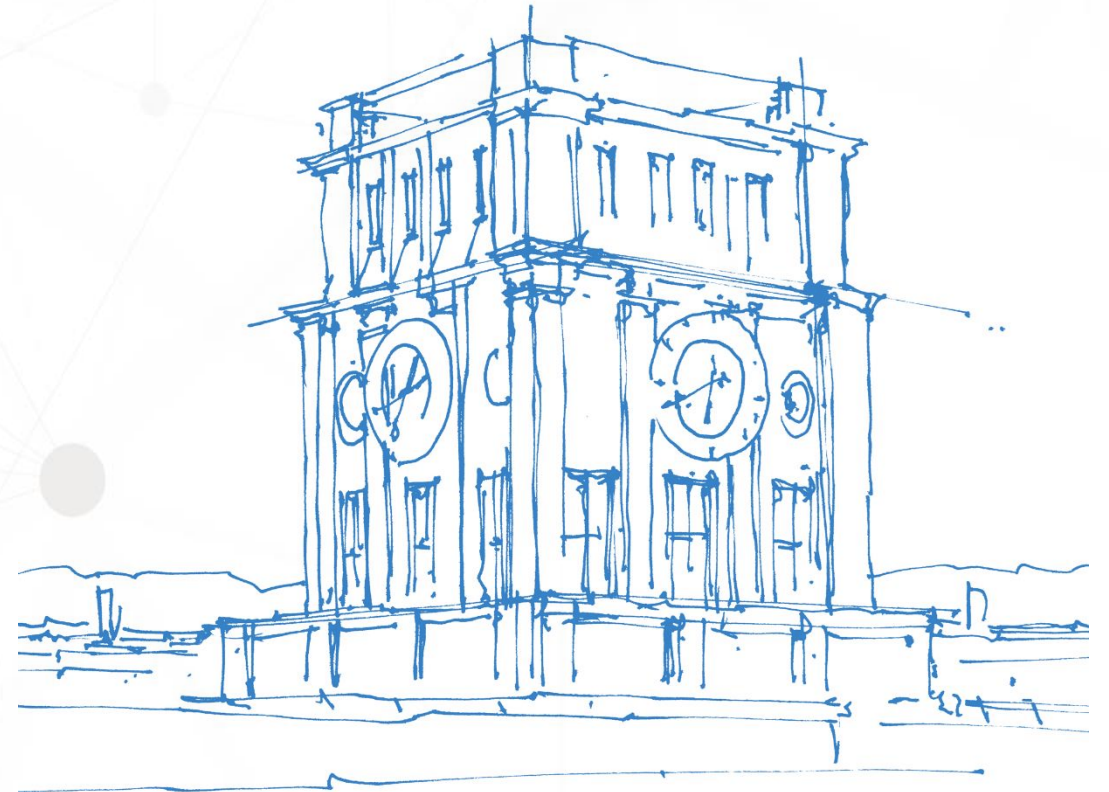Technical University of Munich

Reskilling: The Future of Workplace Education

An overview of theoretical and practical reskilling approaches and novel solutions under development

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Team

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Outline

I. Introduction

II. Reskilling: definition, importance and trends
    1. What is reskilling?
    2. Why is reskilling important?
    3. What kind of trends are driving reskilling?

III. Demand side: Overview of the most important skills and competencies for employees
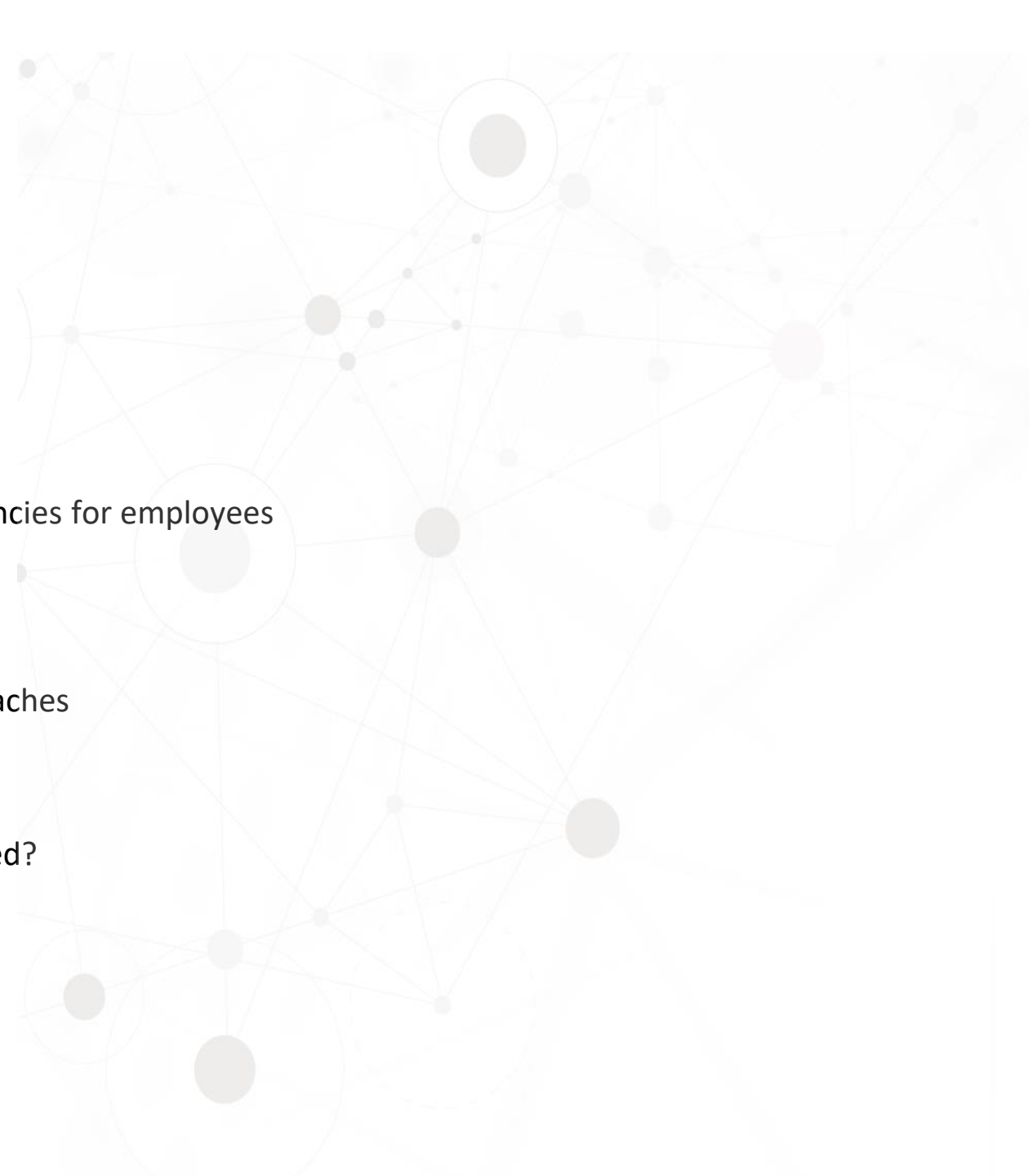   1. Hard skills
    2. Soft skills

IV. Supply side: Overview of theoretical and practical reskilling approaches
    1. What kind of theoretical approaches to reskilling exist?
    2. What kind of practical solutions to reskilling exist?
    3. How theoretical and practical reskilling approaches are connected?

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    1. Guide for companies to reskill their employers
    2. Challenges employers need to address for a successful reskilling

I.   Introduction

Focus
Mission
Research questions

I. Introduction

Primary focus: employee reskilling

Mission: provide an overview of theoretical and practical reskilling approaches and novel solutions under development

Research questions:
(1) What are the most important competencies/skills demanded from employees currently and in the future?

(2) Which theoretical approaches to reskilling exist?

(3) Which practical approaches to reskilling exist that are interesting, innovative and impactful?

(4) How can employers reskill their employees and what kind of challenges they face?

II. Reskilling: definition, importance and trends

1. What is reskilling?
2. Why is reskilling important?
3. What kind of trends are driving reskilling?

[Untitled illustration related to reskilling]. Asia-Pacific Economic Cooperation. Retrieved 24 August from https://www.apec.org/Press/News-Releases/2021/0223_Digital

1. What is reskilling?

Reskilling is used in a context of acquiring a certain set of skills to perform a job that is different from the current one but still adjacent, meaning that a new role will also benefit from the skills acquired from the previous role.

From Secretary to Human Resources Specialist

From Barista to Food Service Manager

2. Why is reskilling important?

"When the weather forecast says a hurricane is coming, we act. We take precautions for our own homes. We help our neighbors, and we join our efforts in local communities. We take joint responsibility because we are aware of the dire consequences if we do not act. I wish the forecast to invest in skills could be taken as seriously – that more people, companies, and societies would start to invest in skills, reskilling and lifelong learning. If we don't, it will not only hamper businesses and the foundation for our economies. It could undermine our entire societal contract"

Peter Hummelgaard

Minister for Employment, Ministry of Employment of Denmark

2. Why is reskilling important?

Fourth Industrial Revolution

Effect of Covid19

Positive effect on employees

Positive effect on companies

2. Why is reskilling important?

Fourth Industrial Revolution (4IR)

Effect of Covid19

Positive effect on employees

Positive effect on companies

Seamless interconnectivity of everything will create completely **new opportunities** and will **redefine the employment market**

1 billion jobs will be transformed due to technology in the next 10 years

If demand for new skills is not fulfilled that might cost economies around **11.5 trillion potential in GDP growth**

When looking just at the next 1-2 years, it is predicted that **133 million new jobs** will be created to meet the skills demand of the characteristics of the 4IR

By 2020 **more than 1/3 of skills** needed for employees to perform jobs will be comprised of completely new skills

By 2025 ½ of employees will need reskilling. Demand for skills needed for 4IR will rise by **55% in 2030**.

2. Why is reskilling important?

Fourth Industrial Revolution (4IR)
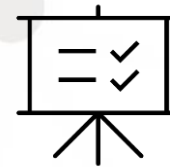
Effect of Covid19

Positive effect on employees

Positive effect on companies

Companies getting ready for post-pandemic world: pivoting business models
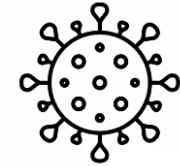
New business models **require new skills** from employees that can be achieved by reskilling

Companies that started reskilling their employees feel **more ready for the future changes** than those who have not done any reskilling

2. Why is reskilling important?

Fourth Industrial Revolution (4IR)

Effect of Covid19

Positive effect on employees

Positive effect on companies

Employees that have learning opportunities at work are **2.9 times** more likely to stay with the current company for at least in the next 2 years.

Participation in reskilling programs leads to **higher employee engagement and satisfaction**, which results in **higher performance**

Employees who have opportunity to reskill feel **more meaning** from the work they do, which increases the quality of their end work.

2. Why is reskilling important?

Fourth Industrial Revolution (4IR)

Effect of Covid19

Positive effect on employees

Positive effect on companies

Almost half of the companies that implemented reskilling programs have seen an **impact on bottom-line growth** that was equal or greater to the investment in the programs.

Reskilling programs can also be useful in **attracting young talent**. Gen-Z workers seem to put a stronger emphasis on learning and development. Employers known for providing training programs will be more attractive to top talents.

3. What kind of trends are driving reskilling?

Digital transformation

Changing economic situation

Usage of mobile and social media

Fourth Industrial Revolution

Business model changes of companies

Technological development (AI, IoT, Automation)

Reskilling

III. Demand side

Overview of the most important skills and competencies for employees
1. Hard skills
2. Soft skills

1. Hard skills

Hard skills

Technical

Cloud computing

Artificial Intelligence and Machine Learning

Technological skills

Skills related to Industry 4.0

Business related

Working with Excel

Project Management

User experience design

Audio & video production
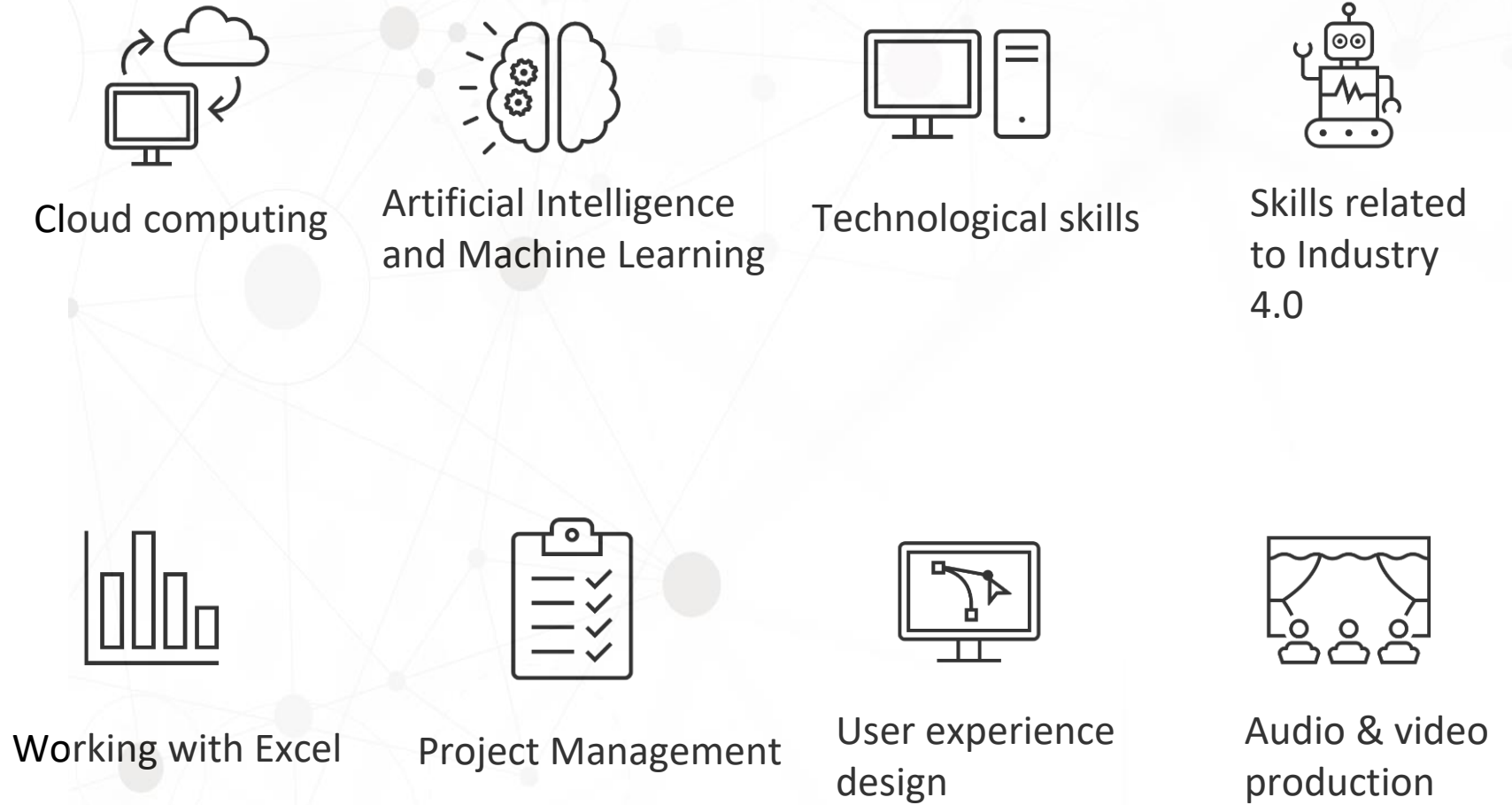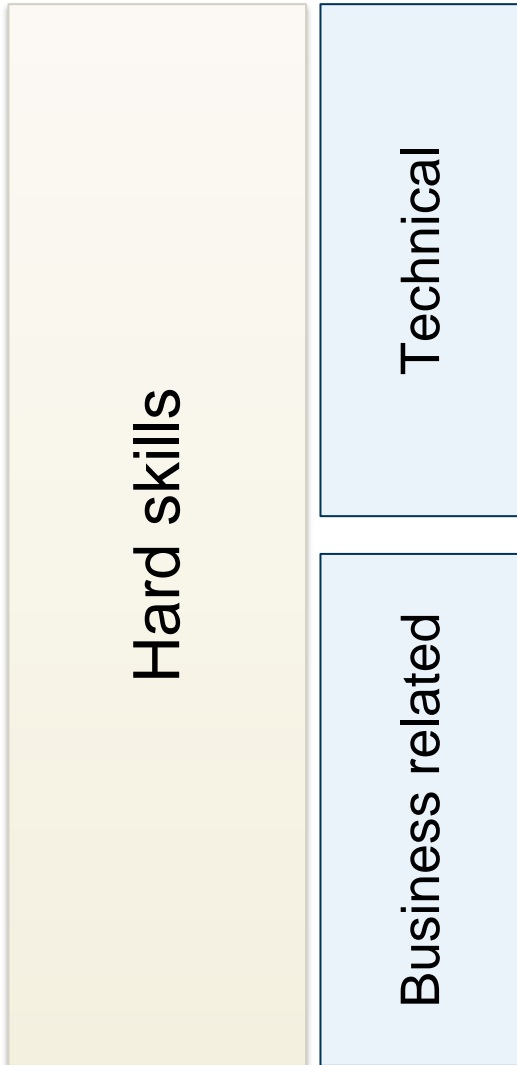
2. Soft skills

Soft skills

Time management

Remote working skills

Creativity

Leadership

Cognitive skills: critical, strategic, analytical thinking & problem-solving skills

Communication and interpersonal skills

Emotional Intelligence

IV. Supply side: Overview of theoretical and practical reskilling approaches
   1. What kind of theoretical approaches to reskilling exist?
   2. What kind of practical solutions to reskilling exist?
   3. How theoretical and practical reskilling approaches are connected?

1. What kind of theoretical approaches to reskilling exist?

Instructor led trainings

Lessons are conducted by an instructor virtually or face-to-face

Online courses (MOOCs)

Pre-recorded online courses people can take on a self-paced basis

Immersive learning

Interactive learning process: gamification methods, quizzes, using Artificial/Virtual reality

Theoretical approaches to reskilling

Industry courses and certifications

Certified courses or industry specific courses specialized in a certain domain

Coaching and consulting

Personalized way of reskilling with a mentor and mentee.

Contextual learning (on the job training))

Learning a skill directly at work and applying those learned skills in practice

Skill management tools

Services or software that enable reskilling or are used to manage it

Blended learning

Mix of two or more learning methods

2. What kind of practical solutions to reskilling exist?

Ways to look at reskilling approaches:

Impactful

how a reskilling approach addresses a gap in skills demanded from employees (e.g. hard skills, soft skills)
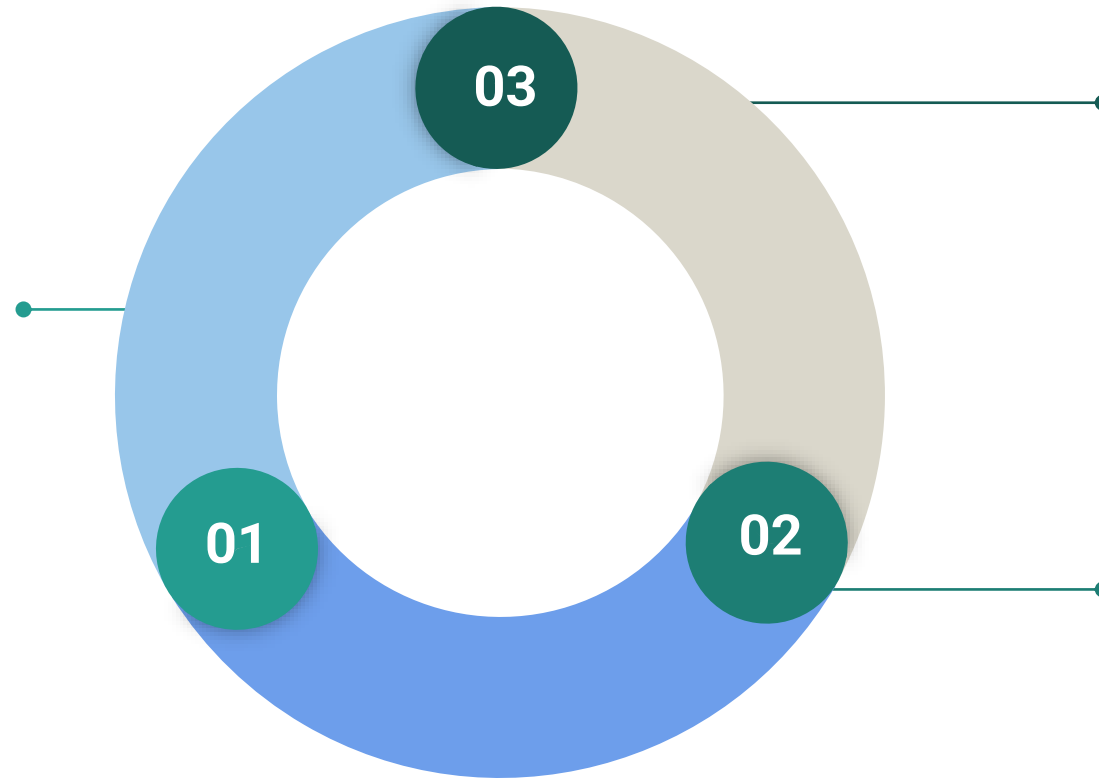
Innovative

how a reskilling approach actually reskills and gives knowledge. Theoretical approach to learning it uses (e.g. blended learning, coaching, etc).

Interesting

how a reskilling approach makes the employer's task of reskilling easier and better

01

02

03

2. What kind of practical solutions to reskilling exist?

based on that we found 12 interesting, impactful and innovative approaches to reskilling

STRIVR

MOTIF

code|cademy

TALESPIN

coursera

FESTO

Spearhead Training

GeekBrains

BetterUp

iSpring®

educative

hitch™

MOTIF

What is MOTIF?

MOTIF is eLearning platform that offers courses led by fashion
industry's leading practitioners in cutting-edge technologies

[MOTIF | Learn Fashion Skills with Online Courses](#)

MOTIF's practical application of theoretical approach for reskilling

What kind of theoretical approach to reskilling does this solution use in an innovative way

On Demand Courses

🔒 Enable trainees to work at their own pace

⏳ Allow learning parallel to work

" **Blended Learning:** a combination of two or more theoretical approaches to reskilling"

Instructor-led Webinars

⚙️ Adjusted to trainees needs

📝 Provide individual attention to each trainee

📌 Choose your topic!

APPAREL COSTING

SUSTAINABILITY

IMPLEMENTING FIT

WOMEN'S FIT & SIZING

YOUR OWN PROGRAM?
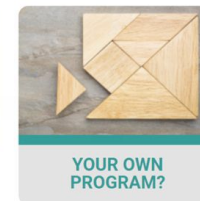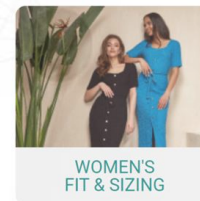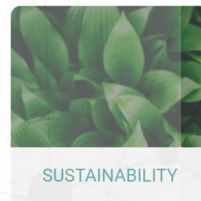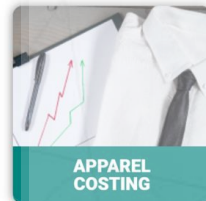
A reskilling program that gives trainees the space to learn at their own pace, without sacrificing individual attention

How MOTIF meets demand for reskilling

What kind of skills demanded from employees does this solution address

Hard skills	Soft skills
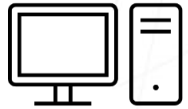
Technological skills
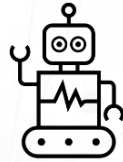
Skills related to Industry 4.0

Working with Excel

Remote working skills

Course Community BETA

New

Advanced Techniques in CLO 3D

Roz McNulty

3D Transformation: The Why, What & How

Eryn Gregory

New

LIM COLLEGE

Excel Spreadsheet Analytics

Christopher Truhan

Coming Soon

Catalyst

Leading Hybrid Teams for Inclusion & Connection

Gina Marescia, Derek Tobias

How MOTIF offers unique advantages to companies

What is MOTIF's contribution to the way companies will reskill their employees

Reskilling in the Age of Digital Transformation

Completely Remote - the courses can be taken anywhere in the world at anytime

Easily Scalable - a course can be used by an unlimited number employees simultaneously without impacting the quality
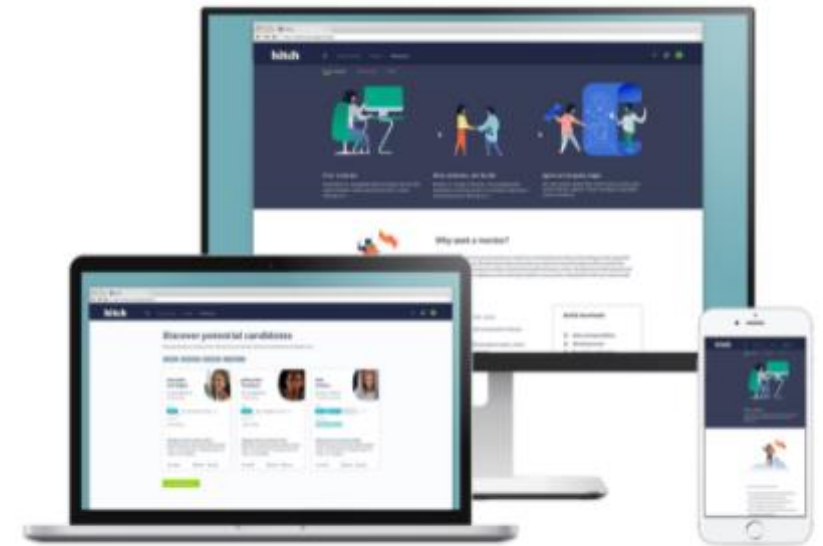
Cost Effective Learning - The prices offered for each individual course are more competitive than hiring consultants or coaches

What is Hitch?

Hitch is an AI powered talent management platform that allows companies to establish an **internal marketplace** for their existing talent

Hitch allows companies to **identify** skill capabilities and gaps and to **find the best candidates** for the job using its workforce
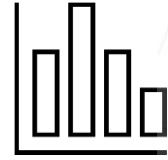
Image taken from: https://hitch.works/product/

Hitch's practical application of theoretical approach for reskilling

Employee 1
Skills:

Employee 2
Skills:

Employee 3
Skills:

Employee 4
Skills:

In-house Skills Database

" **Skill Management Tools:** Services or software that enable reskilling or are used to manage it

Image taken from: https://hitch.works/product/

How HITCH meets demand for reskilling

EXISTING SKILLS IN THE COMPANY

AI algorithm finds the **best person** in the company for the new position and **identify their reskilling needs**

How Hitch offers unique advantages to companies

Reduced spending: Hitch helps employers utilize the talent they have in-house to fill new positions and reduce spending on hiring and onboarding

Increased employee satisfaction: Hitch then finds the best development opportunities for each employee, making sure they always feel challenged and engaged

**Identification of skill gaps**: By analyzing all the employee skill profiles, Hitch can portray the company's skill capabilities and skill gaps
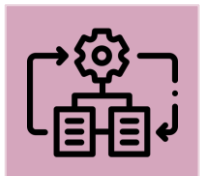
Automated reskilling program planning: Hitch produces a development and upskilling or reskilling program for employee based on their goals

What is Codecademy?

Codecademy is an online platform where individuals and companies can **learn coding languages** through **interactive self-guided exercises** and tutorials

Image taken from: https://www.codecademy.com/
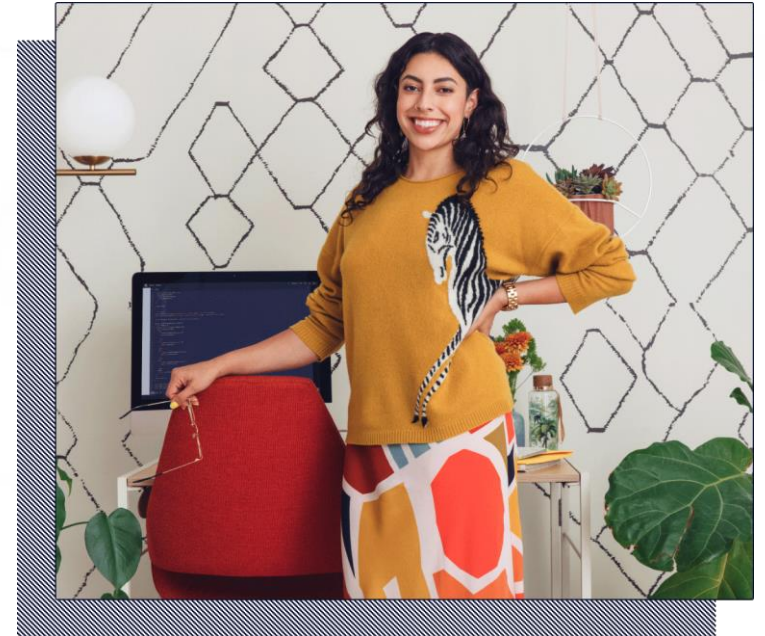
Codecademy's practical application of theoretical approach for reskilling

Codecademy operates with a algorithm that reads and checks the learner's code, provides them with a proper feedback
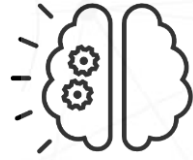
3. Get automated feedback

1. Write code

" **Immersive Learning:** Interactive learning process: gamification methods, quizzes, using Artificial/Virtual reality"

2. Submit

How Codecademy meets demand for reskilling

Hard skills

Artificial Intelligence and
Machine Learning
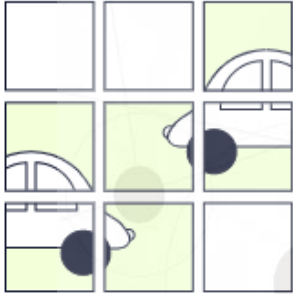
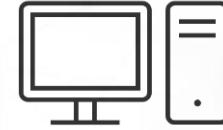Technological skills
(Coding Skills)

PRO Skill Path

Build a Machine Learning
Model with Python
● ● Intermediate, 16 Lessons

With Final Project

PRO Skill Path

Code Foundations
● ○ Beginner friendly, 15 Lessons

Welcome Series

How Codecademy offers unique advantages to companies

Reduced onboarding time: Onboarding new hires requires less time, as no mentor is needed to teach them the skills they need for the job
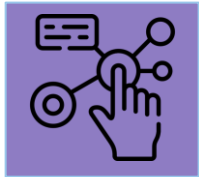
Interactive: The course engage the learner by giving them tailored feedback frequently during the learning program

Increased communication with developers: learning to code makes communication between IT and non-IT employees better

coursera for business

What is Coursera for Business?

Coursera is a Massive Open Online Course (MOOC) which works with universities and other organizations to offer online courses, certifications, and degrees in a variety of subjects.

Coursera for Business is it's branch focused on providing learning services for enterprises

https://youtu.be/ODGVDxjBYH4
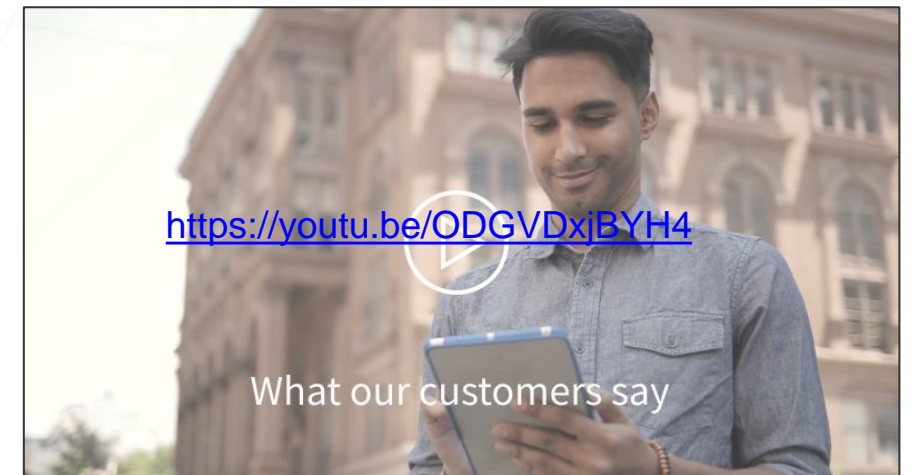
What our customers say

Coursera's practical application of theoretical approach for reskilling

" **MOOCs:** Pre-recorded online courses people can take on a self-paced basis"

4,500+ on-demand courses from prestigious institutions

Yale

Google

Duke
UNIVERSITY

IBM

Learning Management Tools - Skill development dashboard

Skill consulting and mapping
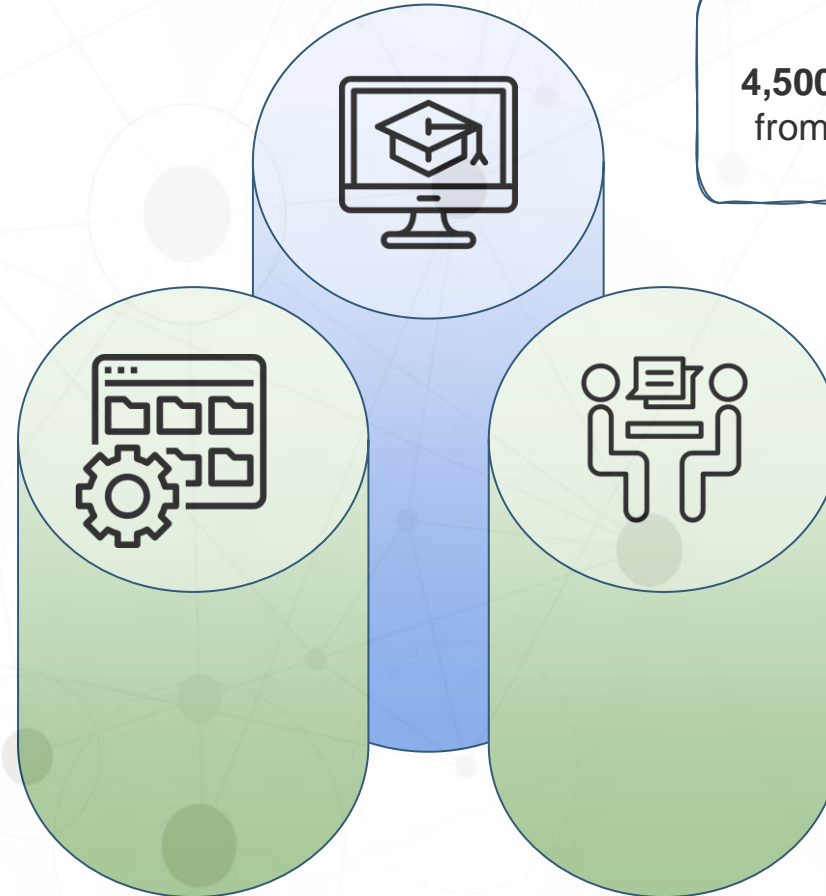
How Coursera meets demand for reskilling

Hard skills	Soft skills

Technological skills

Skills related to Industry 4.0
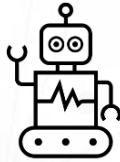
Emotional Intelligence
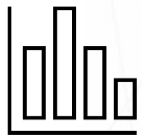
Leadership

Working with Excel

User experience design

Communication and interpersonal skills

Cognitive skills: critical, strategic, analytical thinking & problem-solving skills

AND MANY MORE…

How Coursera offers unique advantages to companies

Quality and Quantity: the solution can be implemented at scale while keeping the quality of the courses provided of reliably very high

Fast Delivery: the implementation of the program is quick, even in large international companies

Reduced Turnover : it allows employers to reliably reskill their workforce without having to look outside the company for new talent

FESTO

What is Festo Didactic?

Festo Didactics, along with Festo Training and consulting, is a provider of technical training in the fields of pneumatics, hydraulics, electronics, electrical engineering, among others

https://youtu.be/DGA2rdmY0GI?t=139

Michael Linn

Skills Competition Manager Factory Automation Festo Didactic SE

Video taken from: https://www.festo-didactic.com/int-en/company/?fbid=aW50LmVuLjU1Ny4xMC4zNDQ0LjQxNDE

Festo's practical application of theoretical approach for reskilling

Labs and Training Centers

https://youtu.be/rcsiuJQBKfc

Lab – The Cyber-Physical Lab

E-Learning

" **Contextual Learning :** Learning a skill directly at work and applying those learned skills in practice "

Festo's Full Training Solution

Instructor-led Training

Consulting

Pictures taken from: https://www.festo-didactic.com/int-en/company/?fbid=aW50LmVuLjU1Ny4xNy4xMC4zNDQ0LjQxNDE

How Festo meets demand for reskilling
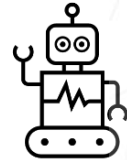
Hard skills	Soft skills

Skills related to Industry 4.0

Communication and interpersonal skills

Cognitive skills: critical, strategic, analytical thinking & problem-solving skills

How Festo offers unique advantages to companies

On-site training - The training is held on the factory floor or at the customer's preferred location. This means that there is no travel time or travel expenses

Involves management - The reskilling programs includes training of top and middle management, as well as factory-line workers
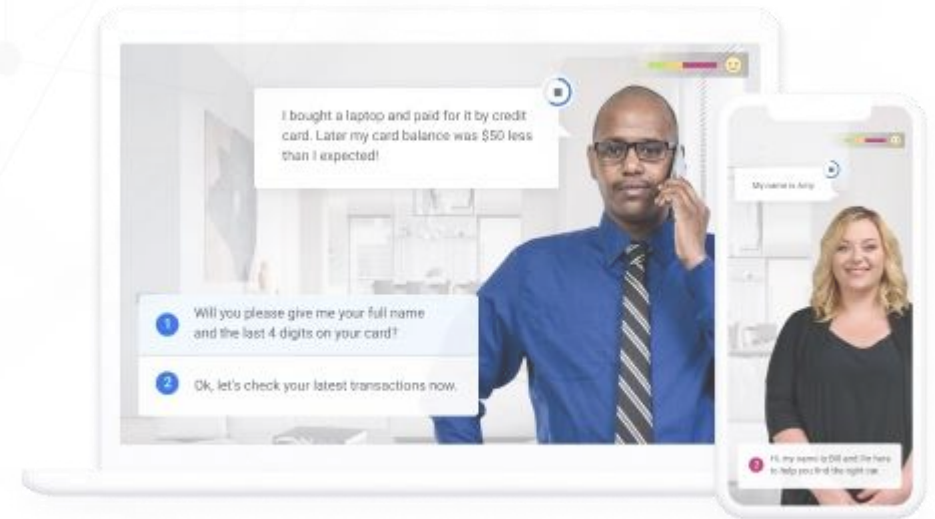
Tailored to company goals - Each training program is unique and tailored to the company's strategic goals
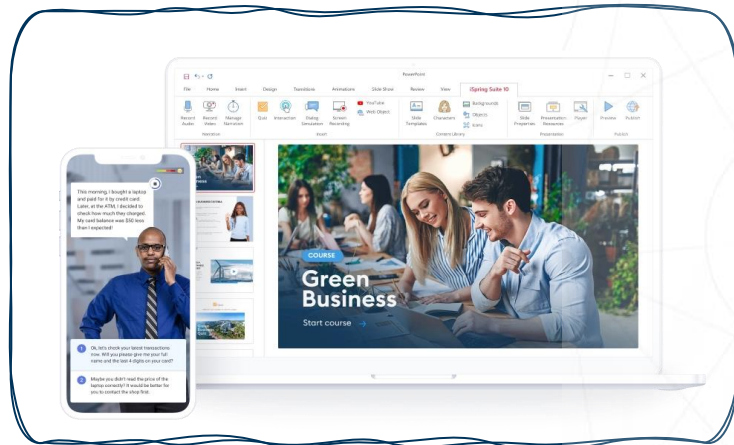
What is iSpring?

iSpring provides tools for companies to create and manage high quality eLearning courses

image taken from: https://cdn2.ispringsolutions.com/ispring_content/content/images/top_menu/layout/responsive/ispring-suite-v3-x2.webp
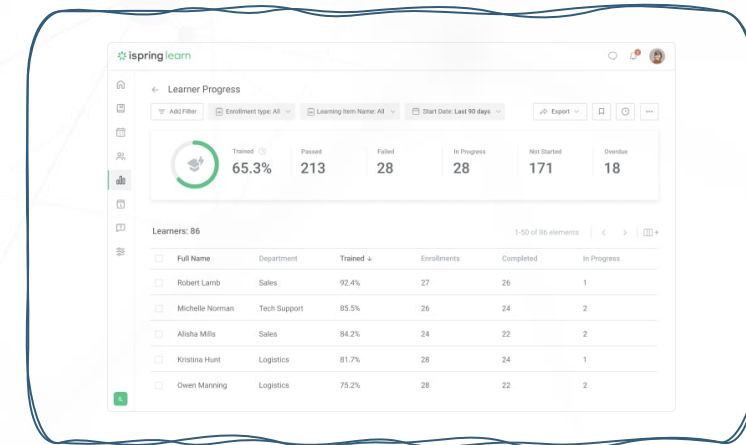
iSpring's practical application of theoretical approach for reskilling

ispring suite

" **Skill Management Tools:** Services or software that enable reskilling or are used to manage it

ispring learn

Enable anyone to create interactive and **immersive courses** without any previous knowledge in video editing or design

A **Learning Management System** (LMS) used to store and manage training of employees, as well as **track training progress**

image taken from: https://www.ispringsolutions.com/ispring-learn

How iSpring offers unique advantages to companies

No new software required- iSpring's software runs on Microsoft PowerPoint and cloud servers that can be accessed with a web browser

24/7 customer support - iSpring promises 24/7 around the clock IT support, thus removing the need for in-house IT administrators
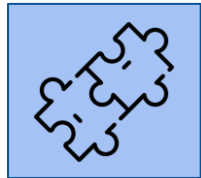
Compatible with all platforms - Courses created using iSpring can be taken on a variety of devices including PCs, Macs, tablets and smartphones

What is Spearhead Training?

Spearhead Training is a training and consultancy group that provides instructor-led courses for UK and Gulf Region based companies

image taken from: https://www.spearhead-training.com/courses

Spearhead Training's practical application of theoretical approach for reskilling

" **Instructor-led Training:** Leason are conducted by an instructor virtually or face-to-face "
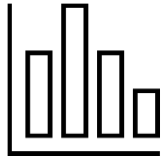
Highly Qualified Instructors

Small Classroom Sizes

The most **high quality** and **premium** reskilling approach

How Spearhead Training meets demand for reskilling

Hard skills	Soft skills

Working with Excel

Microsoft® Office – Excel 2016
Advanced Level

From: AED 2,600.00

Project Management

Online Training Programme

The Fundamentals Of Project
Management – Online Training
Programme
From: AED 4,350.00

Remote working skills

Online Training Programme

Managing Teams (Including
Remotely) – Online Training
Programme
From: AED 1,450.00

Leadership

Online Training Programme

Developing Management Skills –
Online Training Programme

From: AED 7,250.00

image taken from: https://www.spearhead-training.com/courses

How Spearhead Training offers unique advantages to companies

High quality - the most premium and tailored approach for companies to reskill

Insider knowledge - Learners can draw valuable insider knowledge from the decades of experience the trainers bring to the table

Agile - changes can be made and programs can be easily adjusted to accommodate the individual learner

What is GeekBrains?

GeekBrains is an online education platform that focuses mostly on the Russian and Eastern-European markets

Image taken from: https://geekbrains.org/

GeekBrains' practical application of theoretical approach for reskilling

A typical week at Geekbrains University

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
10-12							
12-16						Self-study	
16-18						Team work	
18-20	Lecture	Self-study	Lecture	Self-study	Lecture		

" **Blended Learning:** a combination of two or more theoretical approaches to reskilling"

" **Instructor-led Training:** Leason are conducted by an instructor virtually or face-to-face "
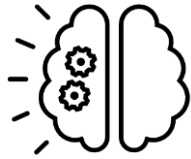
10 Active Learning Hours a Week

Self-study, exercises and homework

Live Online Lectures

Group Projects

Image taken from: https://geekbrains.org/machine-learning-engineer

How GeekBrains meets demand for reskilling
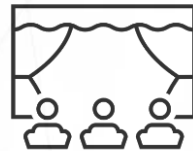
Hard skills

Artificial Intelligence and Machine Learning
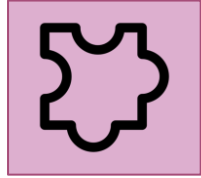
Technological skills

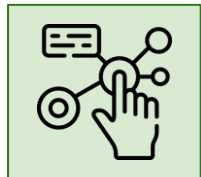User experience design

Audio & video production

Project Management

How GeekBrains offers unique advantages to companies

Extensive and thorough - Takes enough time to give the learner a deeper understanding of a domain

Insider knowledge - Learners can draw valuable insider knowledge from the decades of experience the trainers bring to the table

Combines several teaching methods - Learners engage with the taught material in several ways, which makes the learning process more interesting and increases retention

What is Educative?

Educative.io is an online platform with programming courses aimed at beginner and experienced software developers
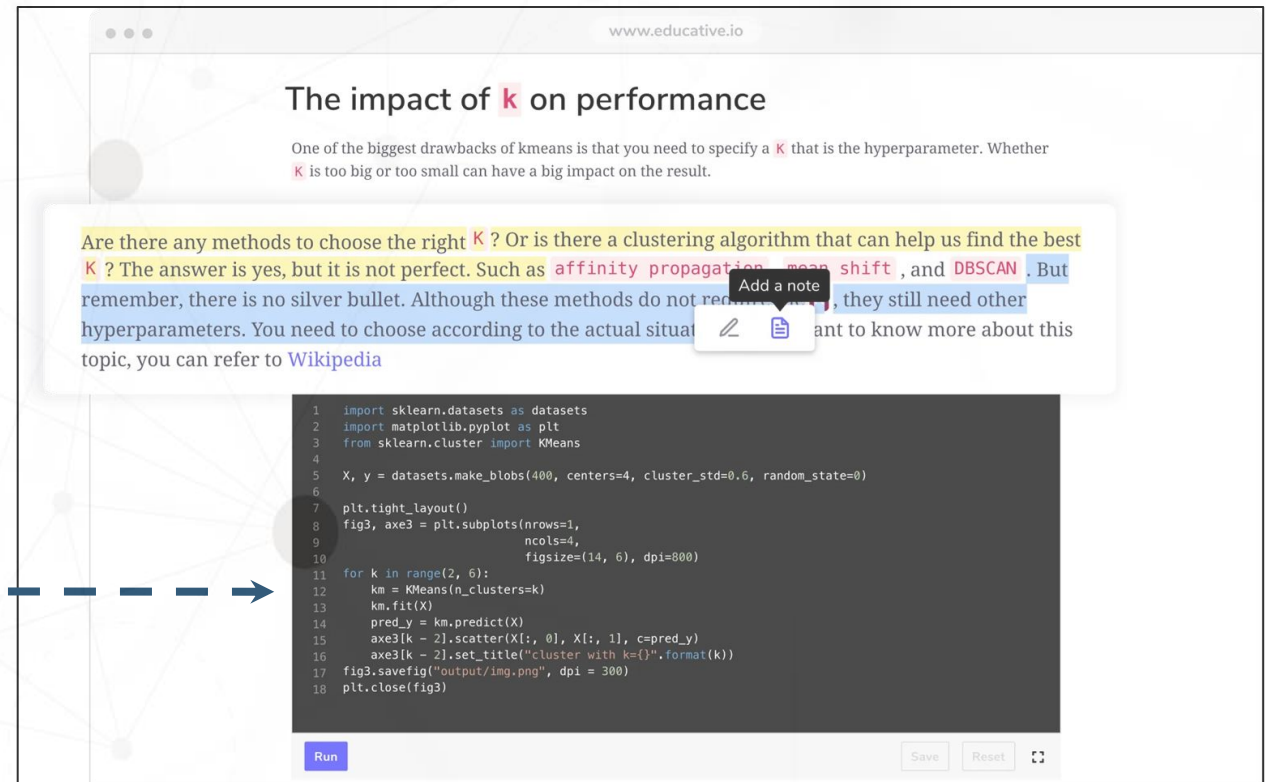
Educative's practical application of theoretical approach for reskilling

" **MOOCs:** Pre-recorded online courses people can take on a self-paced basis"

"The average video tutorial is spoken at 150 words per minute, while you can read at 250."

Reading and exercise oriented courses

Integrated coding environment = no set up

How Educative meets demand for reskilling
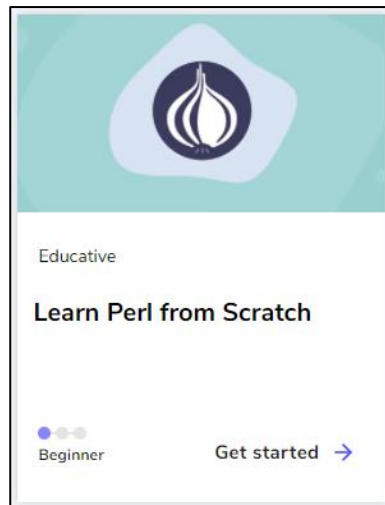
Hard skills

Technological skills

Artificial Intelligence
and Machine Learning

Learn Perl from Scratch
Educative
Beginner — Get started →

Tarun Telang
Mastering Regular Expressions in Java
Intermediate — Preview →

Francesco Abbruzzese
ASP.NET Core MVC
Intermediate — Preview →

Oliver Theobald
A Practical Guide to Machine Learning with Python
Beginner — Preview →

Image taken from: https://www.educative.io/

How Educative offers unique advantages to companies

Faster than video recorded courses - Learners can cover more material in a shorter amount of time
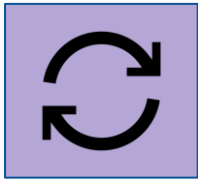
Up-to-date courses - Courses are uploaded frequently and touch upon the news technologies and methods in the tech industry

Specialized topics - Offers more specific courses for experienced programmers

STRIVR

What is STRIVR?

Strivr creates custom end-to-end immersive learning solutions implementing VR

https://youtu.be/JZ52Xq4PlAw

Strivr's practical application of theoretical approach for reskilling

" **Immersive Learning:** Interactive learning process: gamification methods, quizzes, using Artificial/Virtual reality"

1. Strategic Consulting

Strivr's advisors meet with the company's management and translate company goals into learning objectives

2. Curriculum Design

The curriculum is built by immersive learning and L&D experts, who derive critical use cases and success metrics
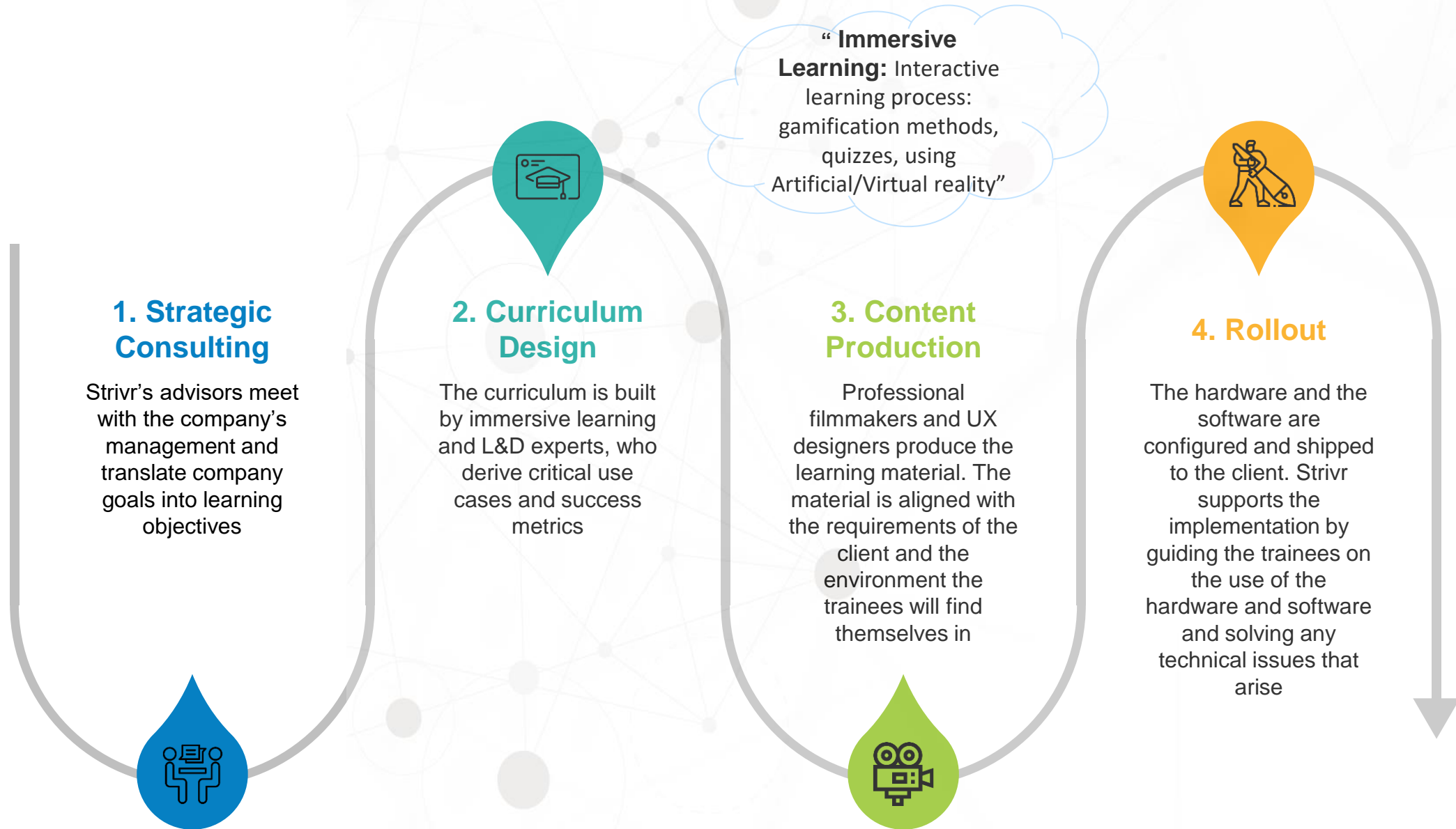
3. Content Production

Professional filmmakers and UX designers produce the learning material. The material is aligned with the requirements of the client and the environment the trainees will find themselves in

4. Rollout

The hardware and the software are configured and shipped to the client. Strivr supports the implementation by guiding the trainees on the use of the hardware and software and solving any technical issues that arise

Strivr's practical application of theoretical approach for reskilling

https://youtu.be/Vu9omTp4yP8

How Strivr meets demand for reskilling

Hard skills
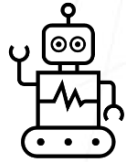
Skills related to Industry 4.0

Technological skills

https://youtu.be/5EAa3H8LP5k

https://youtu.be/0s4OBHV0WH4
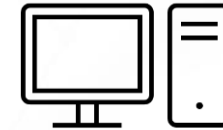
How Strivr offers unique advantages to companies

Dramatic reduction in overall training time - the time it takes to teach something in VR is substantially lower than by using traditional methods of education

Better retention - The training triggers an emotional response from the trainee. This emotional response strengthens the connection to the material

Exciting - Most trainees find interacting with the new technology intriguing and are excited to participate in the training, just for the sake of experiencing VR

Better evaluation of learners - Employers get better insight about their employees from the data collected in the course of the training

What is Talespin?

Talespin is an immersive learning platform that enables training of soft skills with the help of VR and speech recognition
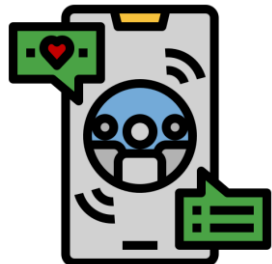

https://youtu.be/0YJrLTvGnnw

Better Up's practical application of theoretical approach for reskilling

1) A personal profile is constructed to evaluate leadership style, straights and weaknesses

2) An AI suggests the best coach options for the trainee based on their profile and goals

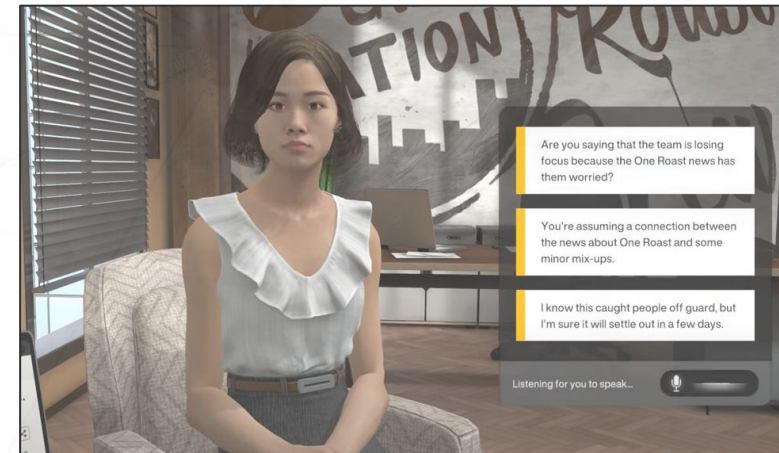3) Weekly one-to-one or group sessions are conducted using video calls and messages

" **Coaching and consulting:** Personalized way of reskilling with a mentor and mentee

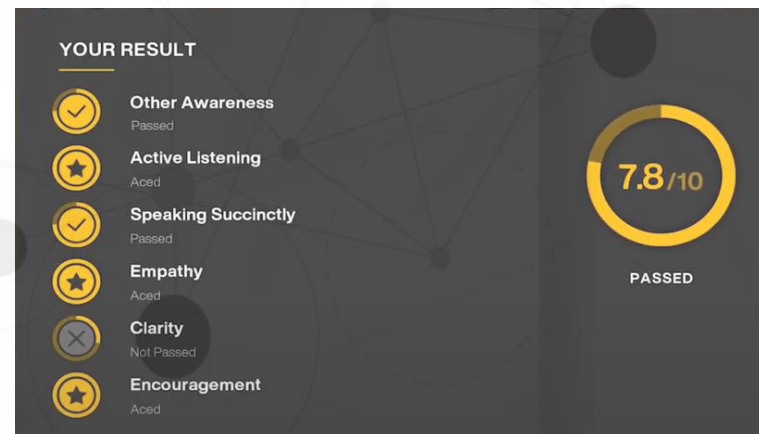# Tailspin's practical application of theoretical approach for reskilling

1. One-on-one session with virtual coach

2. Simulated conversation with employee

Are you saying that the team is losing focus because the One Roast news has them worried?

You're assuming a connection between the news about One Roast and some minor mix-ups.

I know this caught people off guard, but I'm sure it will settle out in a few days.

Listening for you to speak...

3. Get immediate feedback on performance

YOUR RESULT

Other Awareness
Passed

Active Listening
Aced

Speaking Succinctly
Passed

Empathy
Aced

Clarity
Not Passed

Encouragement
Aced

7.8 /10

PASSED

" **Immersive Learning:** Interactive learning process: gamification methods, quizzes, using Artificial/Virtual reality"

Images taken from: https://www.talespin.com/
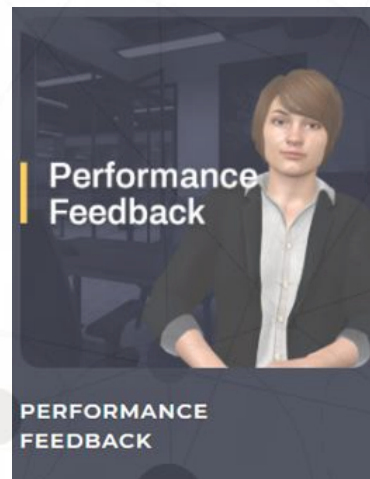
How Talespin meets demand for reskilling

Soft skills

Leadership

Communication and interpersonal skills

Remote working skills

Emotional Intelligence

Leading Through Uncertainty

LEADING THROUGH UNCERTAINTY

Performance Feedback

PERFORMANCE FEEDBACK

Virtual Leadership

VIRTUAL LEADERSHIP

Cognitive Bias

COGNITIVE BIAS

How Talespin offers unique advantages to companies

Safe space to make mistakes - The technology provides a unique opportunity for learners to make mistakes without putting themselves or others at risk

Better retention - The training triggers an emotional response from the trainee. This emotional response strengthens the connection to the material

Exciting - Most trainees find interacting with the new technology intriguing and are excited to participate in the training, just for the sake of experiencing VR
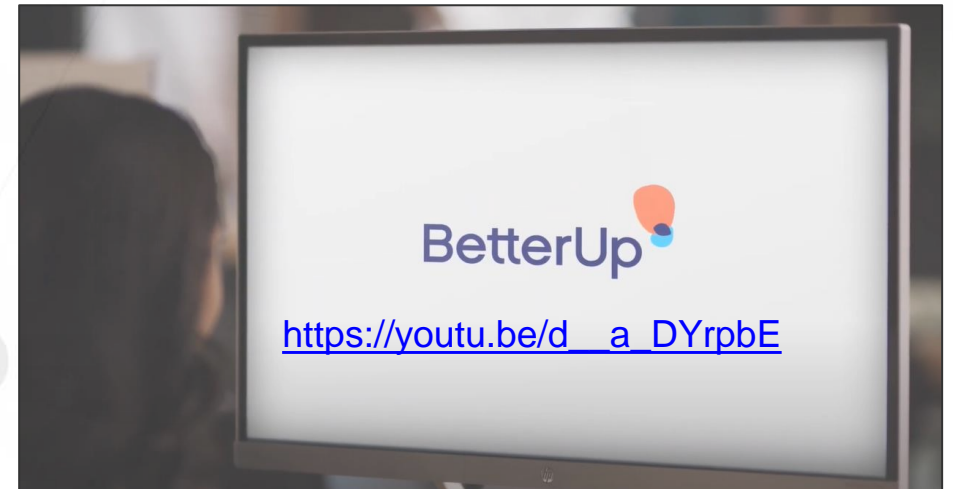
Content creation - companies can use software provided by the Talespin to create their own training

What is Better Up?

Better Up is a coaching and mental health platform that helps managers cultivate leadership skills and increase performance

https://youtu.be/d__a_DYrpbE

How Better Up meets demand for reskilling

Soft skills

Leadership

Communication and interpersonal skills

Remote working skills

Emotional Intelligence

And any other soft skill the trainee needs...

How Better Up offers unique advantages to companies

**Personal -** The approach is tailored to the individual and their needs

Large pool of coaches - Due to the virtual nature of the coaching, trainees are more likely to find the right coach for them

Visualizes impact of coaching - Using quantitative measures, Better Up is able to calculate the ROI of the coaching as well as effects on other performance measures

3. How theoretical and practical reskilling approaches are connected?
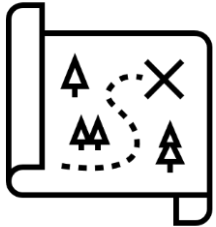
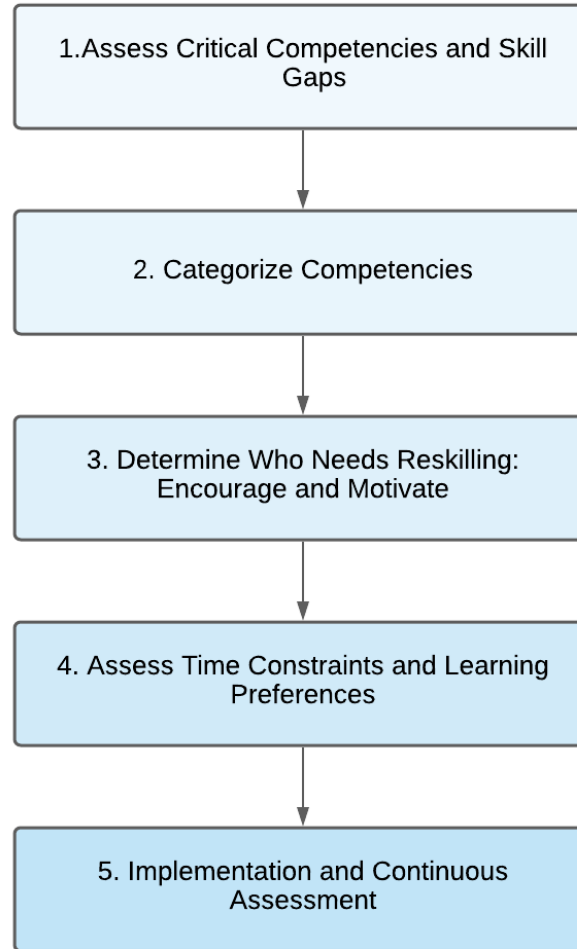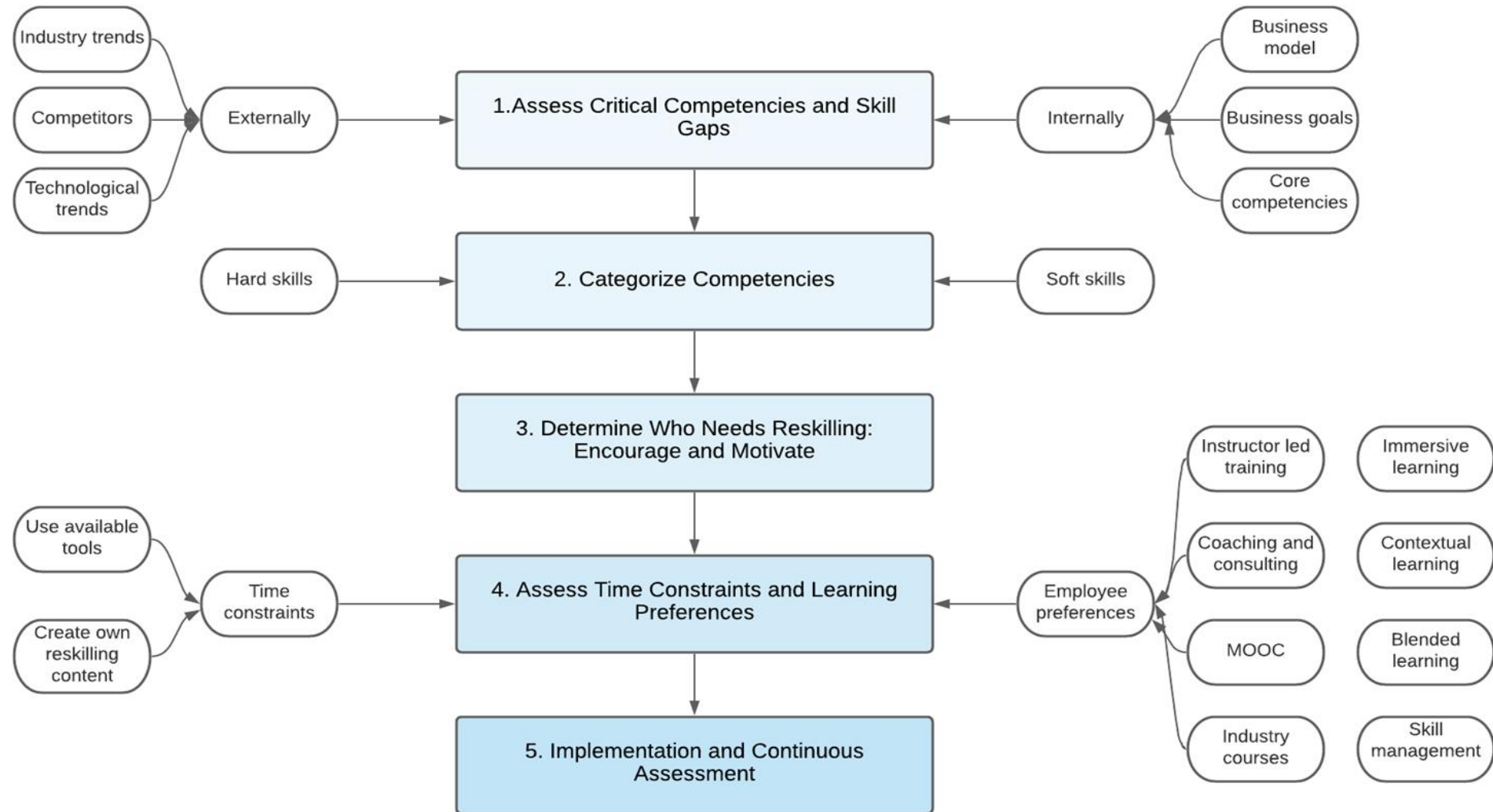| Theoretical approach to reskilling that is used	Practical approaches to reskilling: name(s) of the solution provider(s)
Instructor led trainings (V & IRL)	GeekBrains, MOTIF, Spearhead Training
MOOC (Massive open online course)	Coursera, Educative, Codecademy
Immersive learning	Codecademy, STRIVR, Talespin
Industry courses and certifications	MOTIF, Coursera
Coaching and consulting	Spearhead Training, Festo Didactic, Better Up, Talespin
Contextual learning (or on the job training):	Festo Didactic
Blended learning	GeekBrains, MOTIF, Festo Didactic
Skill management tools	iSpring, Hitch

VI. Conclusion

1. Guide for companies to reskill their employees
2. Challenges employers need to address for a successful reskilling

[Untitled illustration related to reskilling]. Asia-Pacific Economic Cooperation. Retrieved 24 August from https://www.apec.org/Press/News-Releases/2021/0223_Digital

1. Guide for companies to reskill their employees

1. Assess Critical Competencies and Skill Gaps

↓

2. Categorize Competencies

↓

3. Determine Who Needs Reskilling: Encourage and Motivate

↓

4. Assess Time Constraints and Learning Preferences
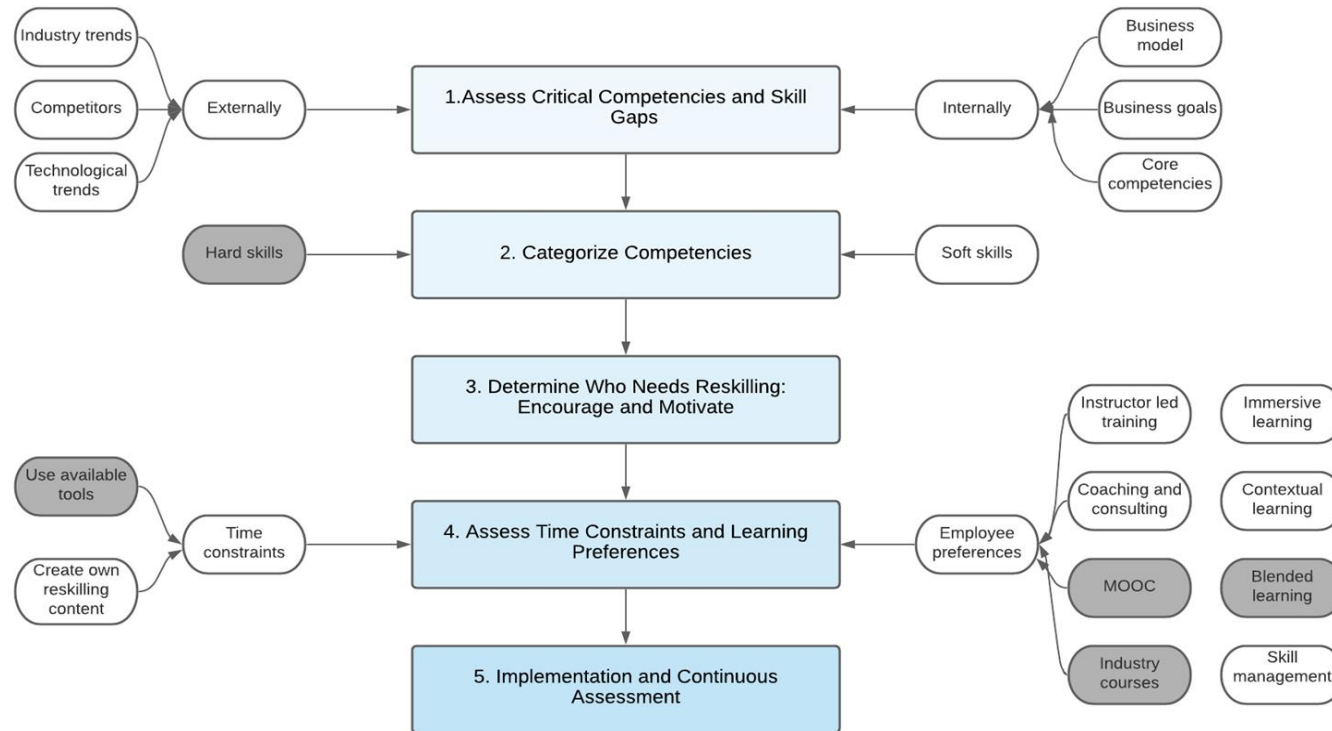
↓

5. Implementation and Continuous Assessment

# 1. Guide for companies to reskill their employees

Example #1

MOTIF is an example of a reskilling company that is focused on one industry and the latest trends and technologies in that industry, namely the fashion and attire industry.

It offers a selection of pre recorded courses as well as a combination of several approaches such as Instructor based training and self-paced pre-recorded lessons.

The content is a combination of off the shelf and customizeable

Example #2
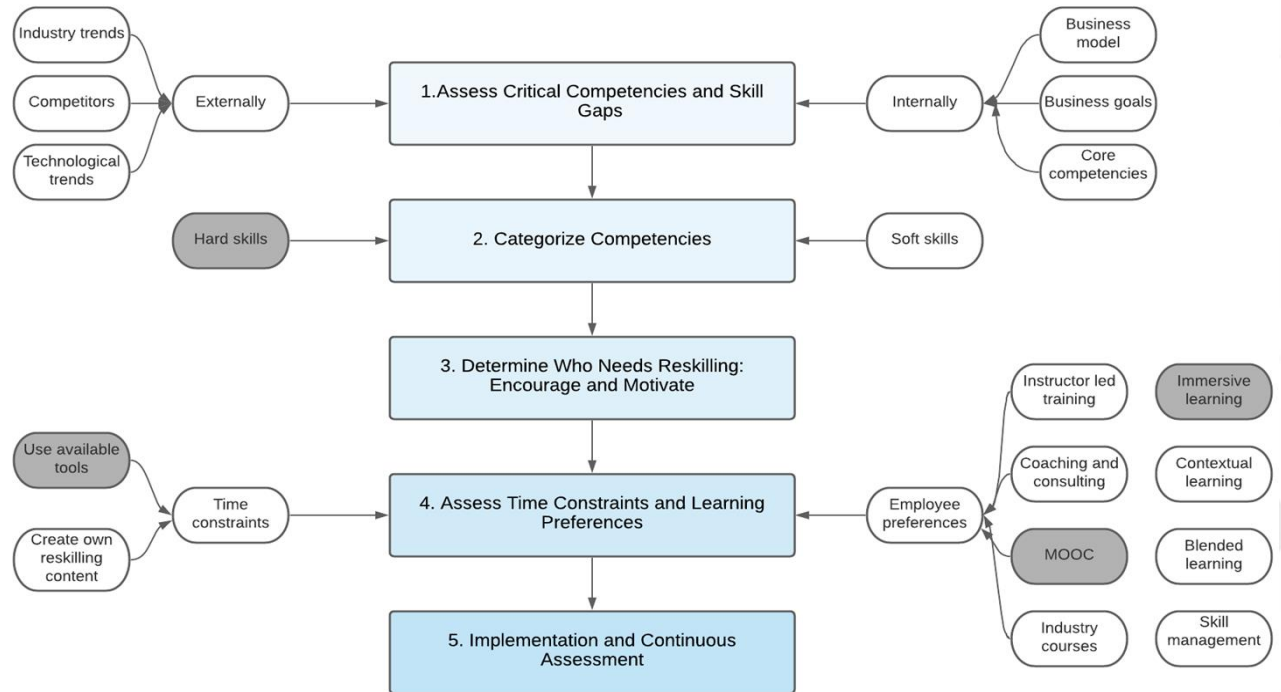
Codecademy is a MOOC that includes immersive learning to teach programming languages. The tool can be used immediately by companies without any need of adapting or personalizing. Designed for companies that have time constraint and for employees that like self-paced asynchronous way of reskilling.
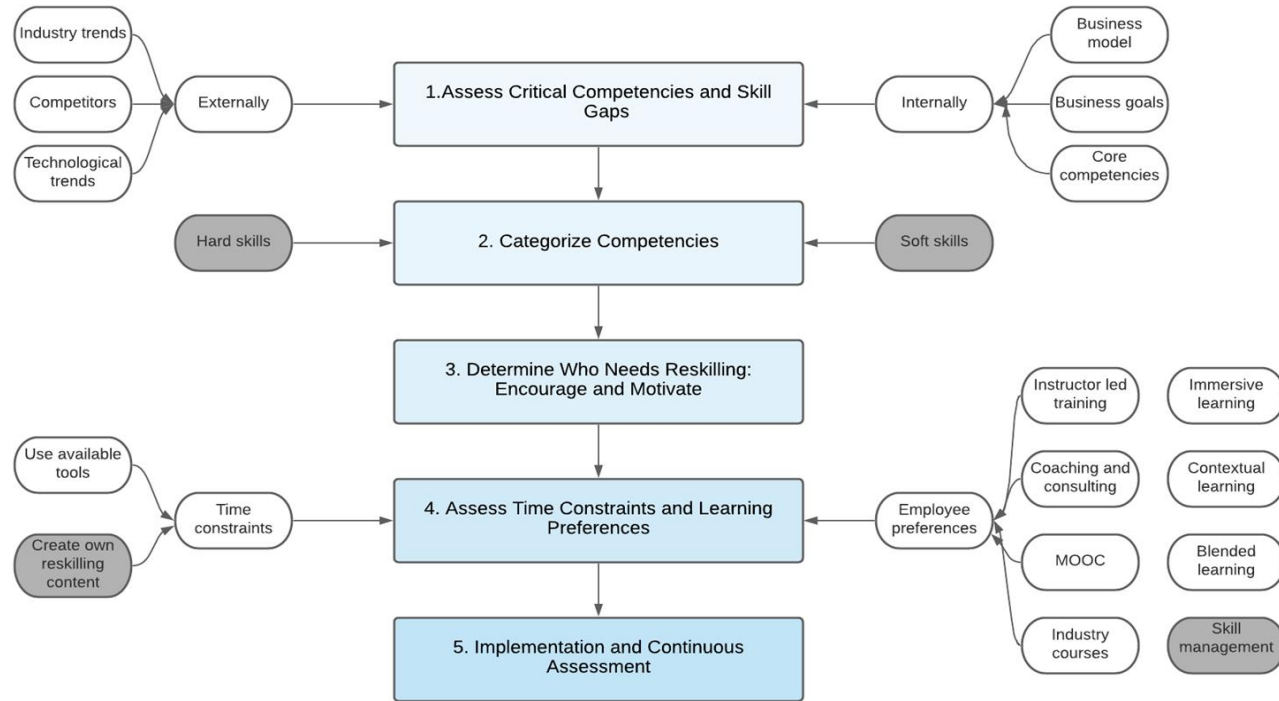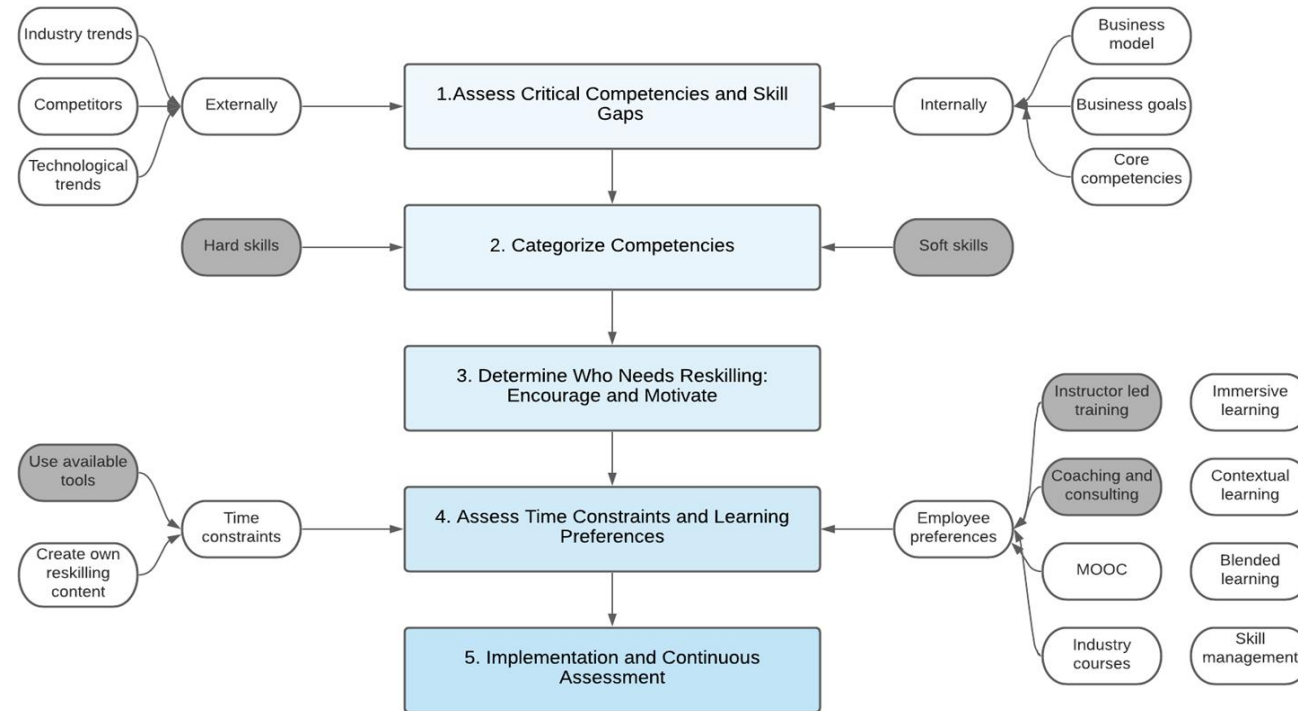
Example #3
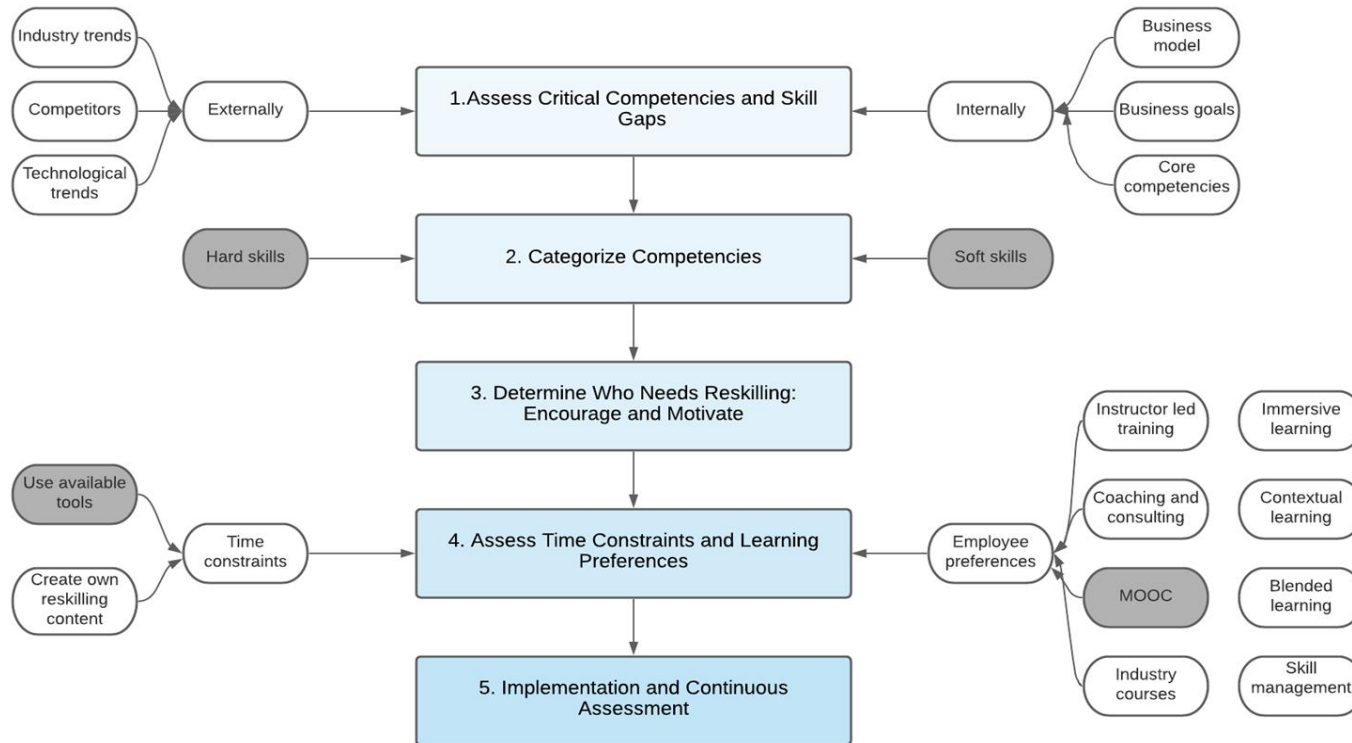
Coursera offers a large library of courses in a broad field of subjects, including both hard and soft skills. The tool can be used immediately by companies without any need of adapting or personalizing. Suitable for companies that have time constraint and a large employee base that needs reskilling. The approach is self-paced, asynchronous and available on several languages.

Example #4

iSpring is a training content creation tool. It is well suited for companies that want to create their own reskilling programs from scratch.

Example #5

Spearhead Training is an example of a reskilling company that is based on the instructor led training theoretical approach. It including both hard and soft skills. The tool can be used immediately by companies without any need of adapting or personalizing. Suitable for companies whose employees prefer face to face training or that require a lot of personalized attention.

Example #6
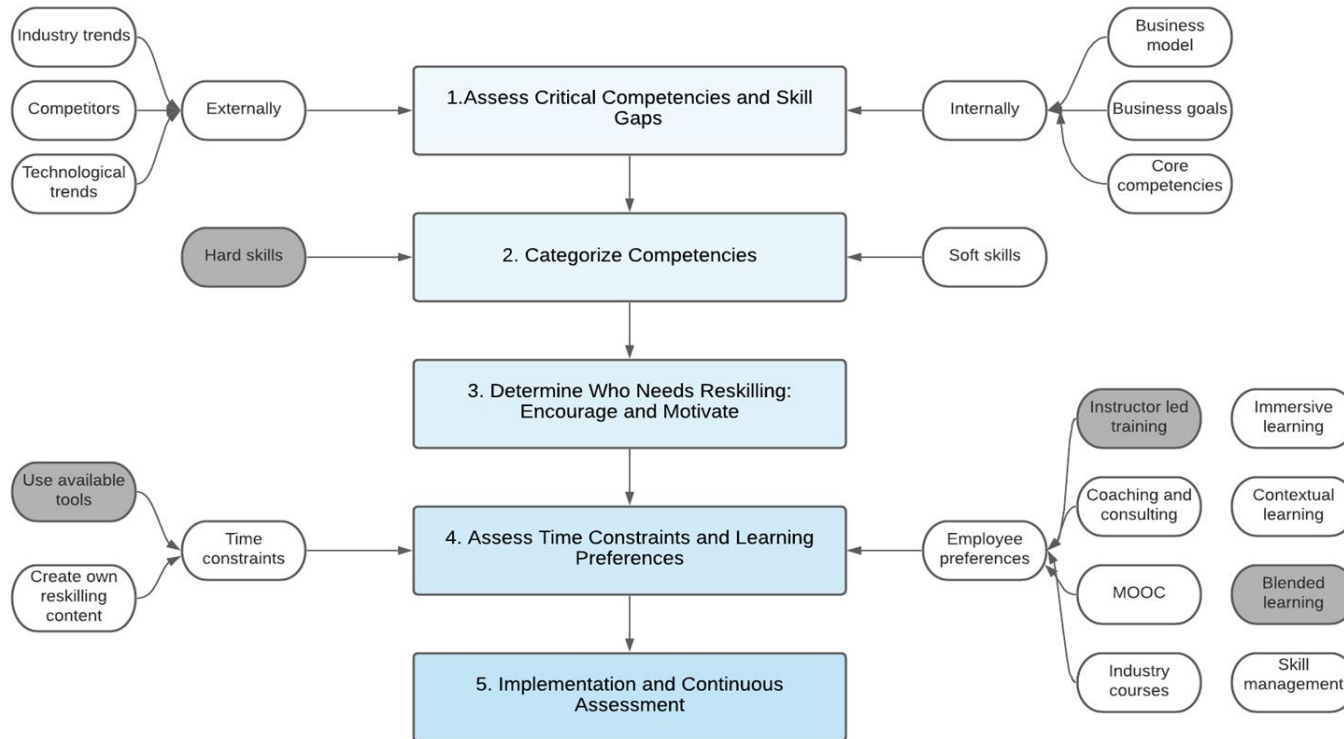
GeekBrains approach is similar to a university education. It includes weekly schedules consisting of online lecture and homework. hard and soft skills. This sort of approach is suitable for companies that want to invest in their employees and expect to have them stay for a long period of time to earn back the investment.

Example #7
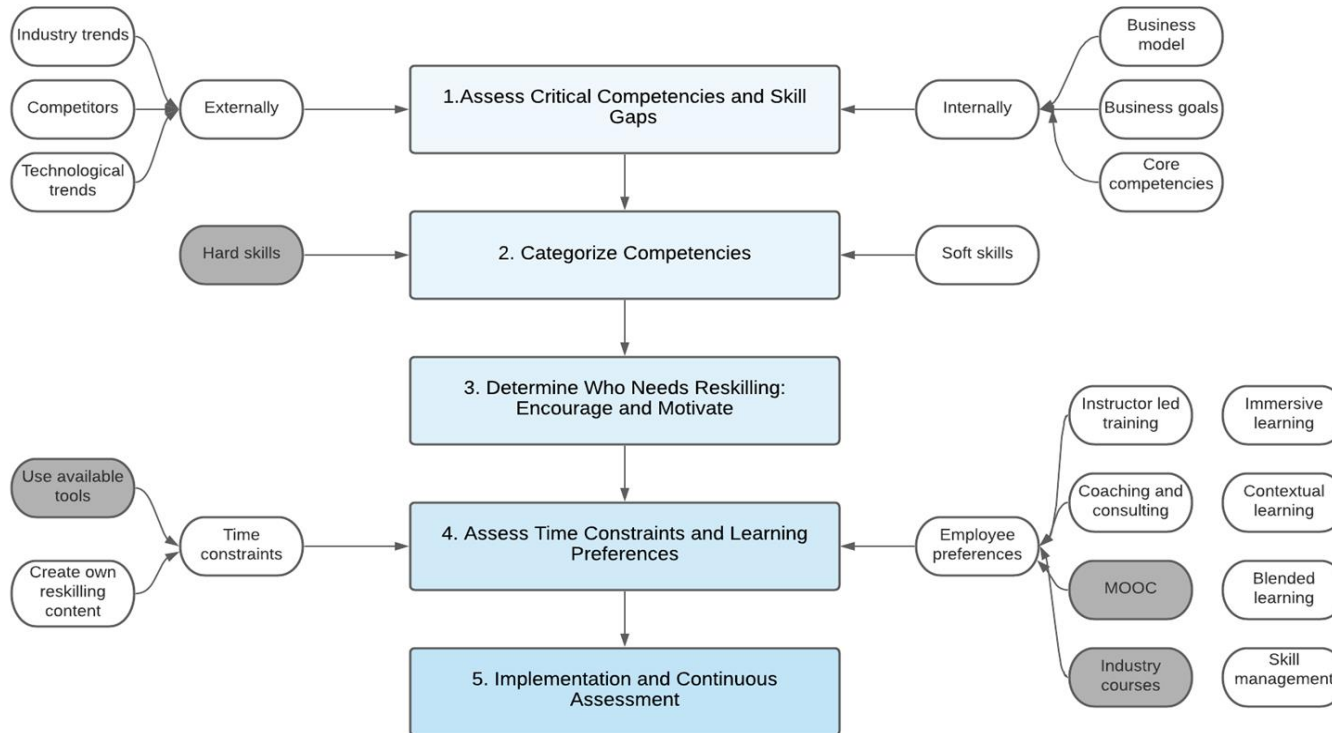
Educative a selection of courses that are focused on software development and engineering. It can be used immediately by companies without any need of adapting or personalizing. Designed for companies that look to reskill developers and software engineers, as most of the courses are too advanced for beginner programmers.
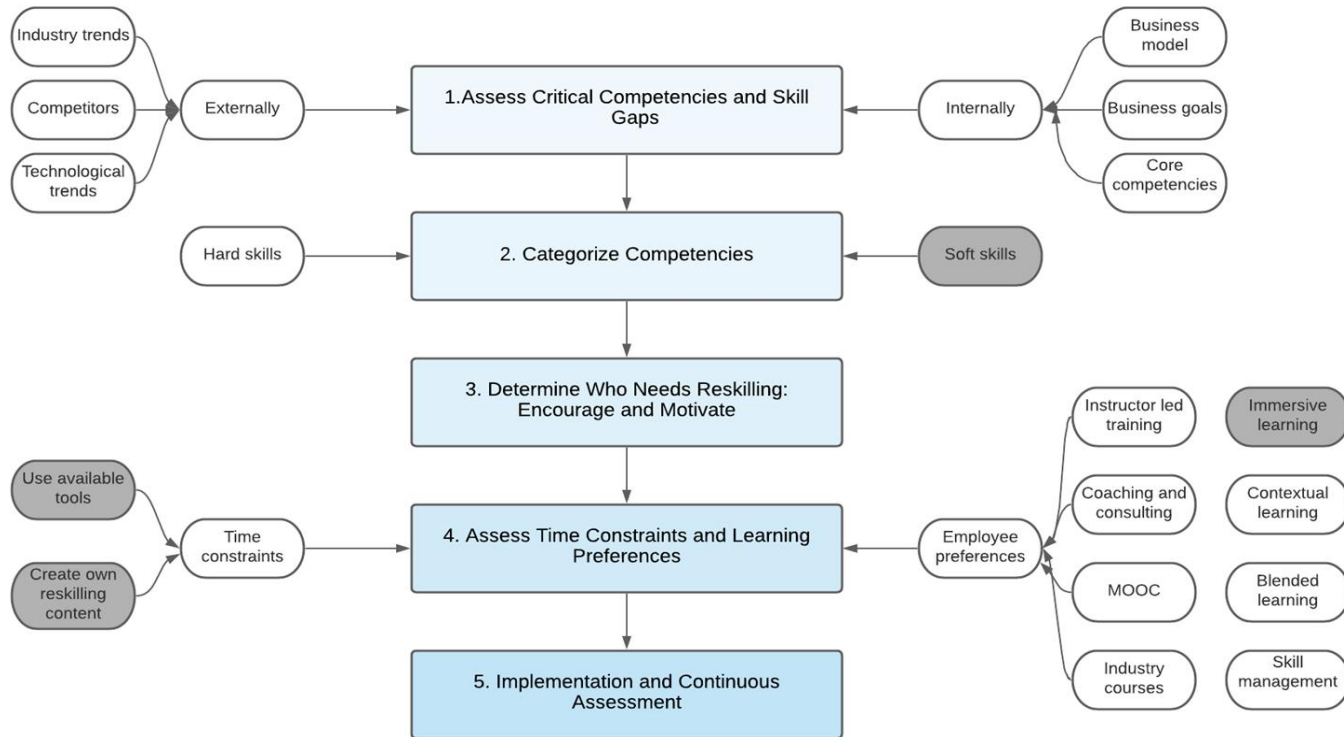
Example #8
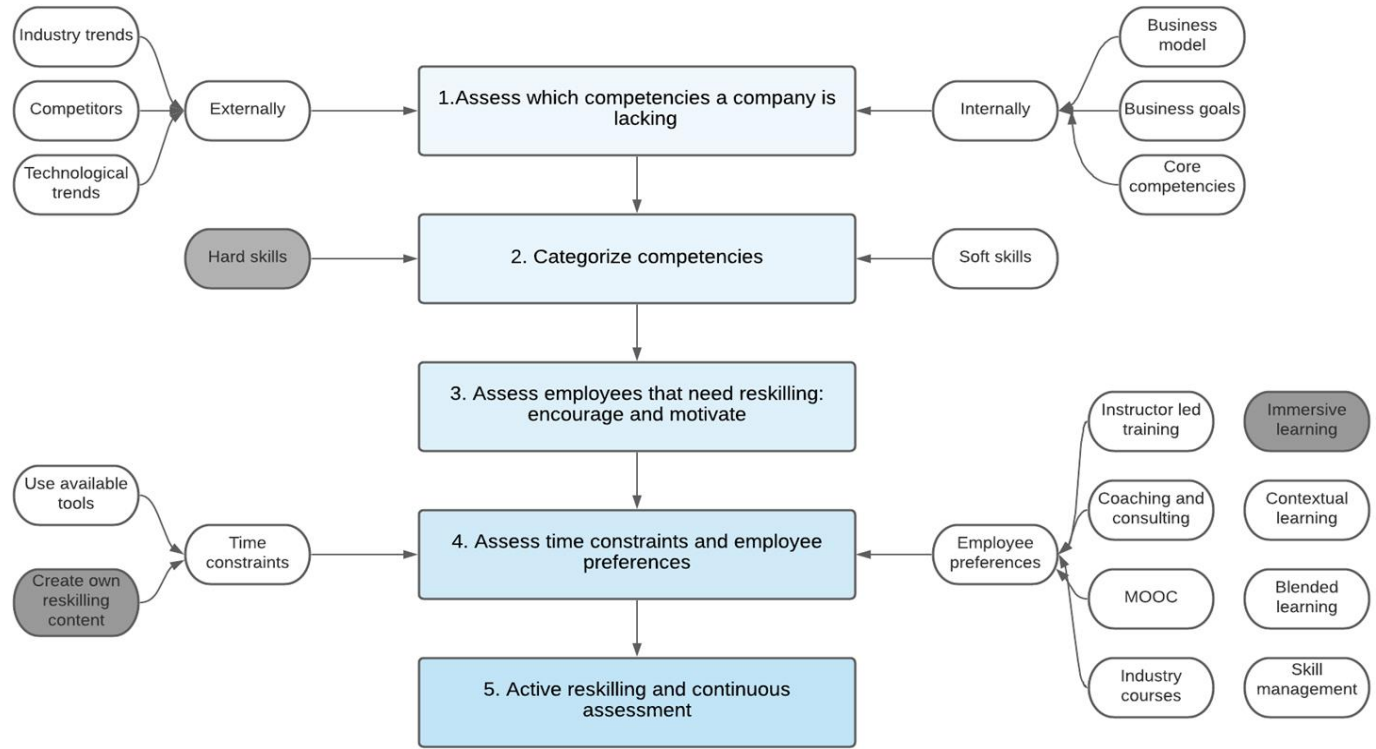
STRIVR offers reskilling of hard skills: technological and skills related to Industry 4.0 using immersive learning approach of theoretical reskilling. The tool is personalized based on company needs. Designed for companies that do not have hard time constraints and for employees that like personalized and interactive way of reskilling.
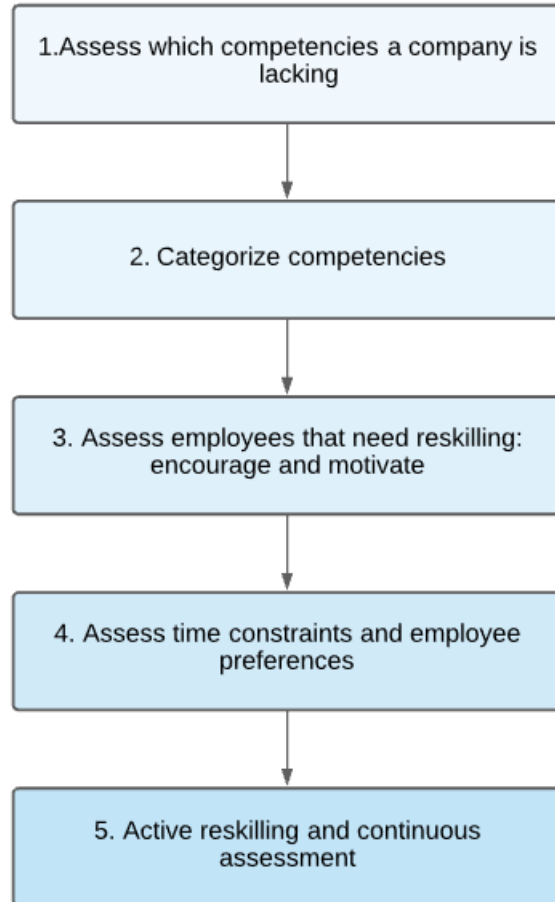
Example #9

Talespin is an immersive learning platform that enables training of soft skills with the help of VR and speech recognition. The tool can be used immediately, by choosing from a selection of pre-made courses. Alternatively, courses can be created using a content creation platform. Suitable for companies seek to train management in soft skills.
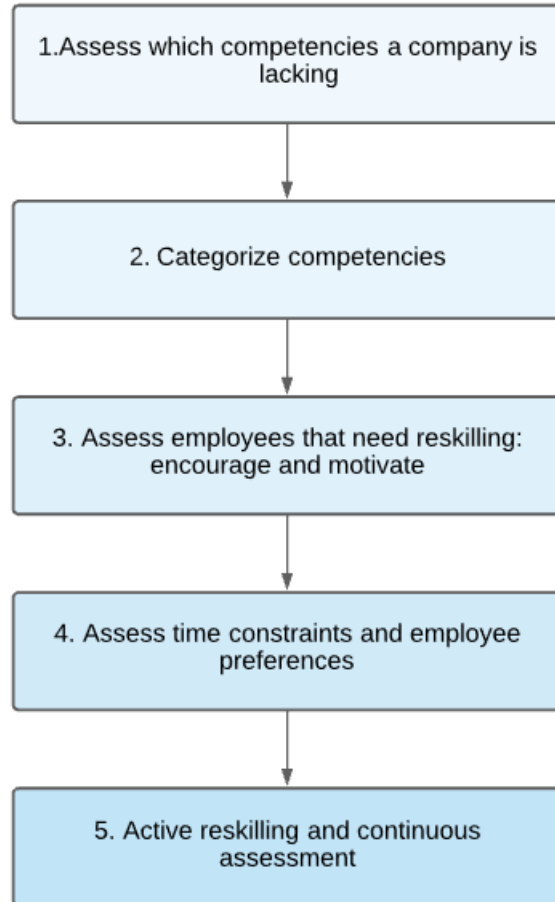
Example #10
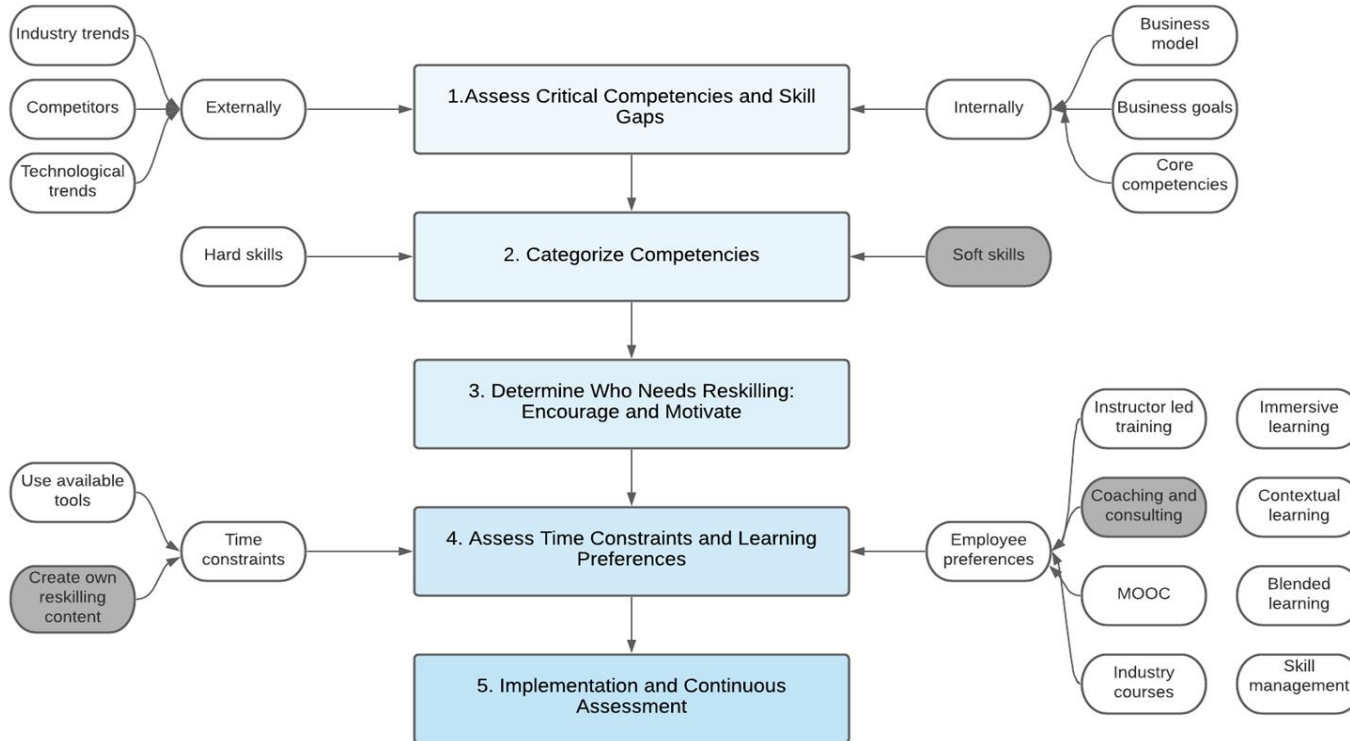
Better Up is a coaching and mental health platform that helps managers cultivate leadership skills and increase performance both with hard and soft skills. The tool can be used immediately by companies without any need of adapting or personalizing. Suitable for companies that have no hard time constraints and want to invest in their management.

Skill Management Tools help with the process

1. Assess which competencies a company is lacking

2. Categorize competencies

3. Assess employees that need reskilling: encourage and motivate

4. Assess time constraints and employee preferences

5. Active reskilling and continuous assessment

BetterUp

hitch ™

Companies like Hitch and Better Up offer AI powered tools that **help identify skill gaps** and **suggest appropriate reskilling solutions** to close them

Skill Management Tools help with the process

1. Assess which competencies a company is lacking

2. Categorize competencies

3. Assess employees that need reskilling: encourage and motivate

4. Assess time constraints and employee preferences

5. Active reskilling and continuous assessment

coursera for business

STRIVR

code|cademy

Many E-Learning based **reskilling platforms offer monitoring, tracking and analysis tools**, allowing assessment of the learners' reskilling progress
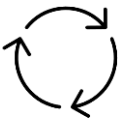
2. Challenges employers need to address for a successful reskilling

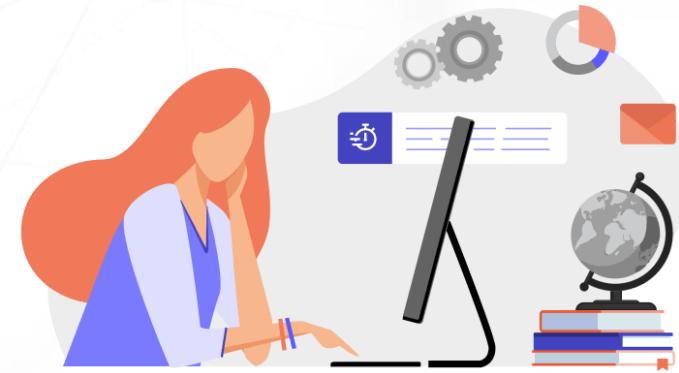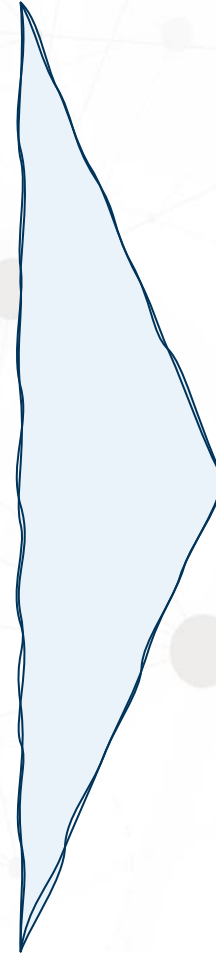Identify skills that need reskilling that are critical for the success of the company

Deliver reskilling to employees

Ensure continuous reskilling

Invest in reskilling constantly

Successfully overcoming challenges related to reskilling should lead to a **super-learning culture** in which skills-based learning is intrinsically engrained in employees, learning is driven by data and based on employee capabilities, employees are offered flexible career opportunities

Wrapping up: focus, mission and research questions

Primary focus: employee reskilling

Mission: provide an overview of theoretical and practical reskilling approaches and novel solutions under development

Research questions:
(1) What are the most important competencies/skills for employees currently and in the future?

(2) Which theoretical approaches to reskilling exist?

(3) Which practical approaches to reskilling exist that are interesting, innovative and impactful?

(4) How can organizations reskill their employees?