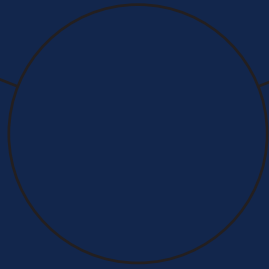


# Unlock The Value In People

# Introduction

This report compiles the research that has been undertaken by the Institute Without Boundaries (IwB) in order better understand one of the forces driving the Affordability crisis. This project hopes to outline one component of this crisis by understanding some of the factors that are affecting societies and a workforces' ability to thrive and maintain Affordability. Although it is known that there are many solutions to Affordability, society does not seem to respond to this problem in a way that solves the issues that allow people to fall into difficult times. New approaches to Affordability, and systems that will accommodate these evolutions have been uncovered, but they need to be acted upon through the understanding of access to opportunities, offering more empowered choice, a re-imagined sense of ownership, and the feeling of a well functioning community. Through this we will gain the ability to be able to unlock the existing value in people, spaces, and capital. This is so important because in our current western democratic economy we are seeing an emphasis put on our careers providing us with purpose and meaning.

This project was inspired from the findings in the IwB 2019 International Charrette, focusing on Affordable Infrastructure. During this Charrette we focused our efforts on understanding what impact the closing of the GM Factory would have on workers. The closing of this factory was brought on by the rise in automation, as General Motors are shifting their focus into autonomous vehicles at another location. This shift will displace thousands of people, and leave them in a situation where they may have difficulty integrating themselves into the workforce. Throughout this Charrette, the team was able to develop the skeleton for a concept that has been further explored to communicate a future-proofing plan for not only the manufacturing industry, but all industries, at all levels.



## Understand, Anticipate and Prepare For a Changing Workplace.



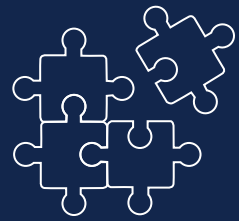
Technology is  
Disrupting the Workplace



There is a Constant  
Need to Reskill



We Identify Our  
Purpose With Work



Gaps in Industries Are  
Causing Displacement

# BC∞OST

**is a non-profit organization that assists in overcoming disruption and accelerate the canadian economy through research, training and advocacy.**

Boost is an integrated strategy for closing the gaps causedby the rapid change within our industries.

## BC∞OST Anticipation

Boost provides insight into the major disruptors that are going to affect the workplace.

## BC∞OST Preparation

Boost trains workers on-site to develop skills and provide companies with highly capable workers.

## BC∞OST Analysis

Boost assess skills and quantify workers abilities in order to better serve the rights of workers.

## BC∞OST Compensation

Boost ensures proper compensation for workers while benefiting companies through increasing productivity.

## BC∞OST Sharing

Boost offers important insight into workplace disruptions and shares this knowledge by utulizing AI Technology.

## Work

### Capital & Purpose

For Boost to exist the presence of work is necessary and in our current economic system, the generation of revenue is the top priority for people and organizations at any scale. It is important to embed an emotional connection for the workers to boost productivity which in return benefits the bottom line of the company. An issue many workers and companies face today is replace-ability. We have entered a new age of more flexible labour markets which has led to a drastic increase in job instabilities worldwide. With the rise in automation, it is difficult for workers to remain valuable in their industry which devalues the humans in the system.

## Research

### Creation & Evolvability

Innovation is ongoing, and the current climate of work and innovation in automation could put an alarming number of people out of work. We can mitigate the number of jobs lost as long as we continue to evolve the ecosystem that surrounds the existing resources within and surrounding the workplace. It is time that our world needs to start innovating for the people in the workplace again rather than focusing on technological advancement for the productivity within the product, system, or service. This must be done in a way that fosters longevity without enabling complacency within companies.



## Advocacy

### Equity & Empathy

In the workplace we are currently undervaluing the people and over valuing the things that people buy and sell. We need to advocate on behalf of the importance of people in the system when technology advances place the idea of people seeming less necessary. There will still be many opportunities for people, that can be found if advocated upon. This will also allow the personal equity to continue to grow. We also need to empathize with the abilities people have, and that they need in order to learn and connect in industries by providing them with a skills network they can rely on if they fall into hard times.

## Education

### Skilling & Participation

The industries are changing fast, and workers are likely to change occupations many times in the future. While these advancements are unavoidable, industries can't expect their workers to re-skill themselves externally from their job, every time the industry changes. Continuous skilling will allow give people the opportunity to reduce the skills gap that has formed due to the large advancements in technology over the years. This skills gap is causing large inequality in terms of both ability and monetary compensation. Our system needs to be able to grow and adapt to help prevent these unfair inequalities.

Boost helps organization and worker identify skills gaps, provide training resources and workshops, and advocate on behalf of workers rights in this uncertain economic climate. We Boost your understanding, your skills, your network, and your ability to maintain fair an equitable employment.

## Skills Gap

We can't help Canadians transition to more meaningful employment if we don't identify opportunities for upskilling in alignment with disruption. There is a continual gap between the skills that people currently have and the skills they might need in the future. This has always been a concern and the most successful organizations invest in their employees to anticipate and prepare for change to empower innovation from within. At Boost, we leverage our knowledge across industry domains to identify emerging skill gaps, provide skill assessments to understand the gaps between existing and emerging skills and provide precise training programs and upskilling resources that help you prepare for the future. In doing so, we also promote agility and adaptability skills to ensure you are always ready to pivot.

## Disruption Literacy Gap

You cannot predict something you don't understand. We have established a research team that works across industry sectors to identify the major disruptors affecting employment. The knowledge that we gather is used to create scenarios that demonstrate the impacts of disruptors in three key areas: Obsolescence, what aspects of the industry might be eliminated or have declined in human participation; Augmentation, what disruptors might increase efficiency through augmentation of human skills and intelligence; and Transition, what new, emerging skills and/or opportunities might be created as a result of disruption. We help disseminate these learnings through workshops and resources that are distributed to organizations.

## Compensation Gap

If we're not protecting worker's rights and pay equity, our talent pool will be unmotivated, uninspired and unable to maintain quality of life and wellbeing that contributes to productivity. There is a gap in pay equity within organizations and more broadly across industry sectors. This is becoming increasingly relevant with the rise of the gig economy, examples of this are uber, foodora and other large technology companies that employ temporary workers with no obligation to their security, wellbeing, training or other typical employee benefits. At Boost, we work hard to identify these inequalities, raise awareness about them and how they impact innovation, productivity and wellbeing of Canadian workers and organizations, and develop organizational and government policy to help prevent them.



How Does  
BC∞OST  
Help?

## **Boost is On-Site**

In order to maintain a good partnership with corporations and the workers Boost will exist on-site. This will allow them to continue to adapt and build plans that will support the workers, companies and industries to continue to evolve with the rapid pace of automation in the workplace.

## **Boost is On-Going**

Due to the fact that industries are evolving at such a rapid pace, Boost needs to continue to innovate and grow at all scales in order to determine what the best course of action will be for the workers to maintain meaningful employment.

## **Boost is On-Trend**

Boost is always looking to the future by actively researching the skills and career paths to help workers. They will take this information and help the workers in the corporations stay up to date remain in the industry.



# What Does Boost Do?

## Research

Boost will employ interdisciplinary research specialists to understand the disruptions and gaps in an industry.

## Networks

Boost has the ability to connect their large network bring workers, companies and industries together through events and platforms.

## Workshop

Boost will utilize short workshops to collect and distribute industry knowledge, and learn from industry experts about workplace issues.

## Planning

Boost will take the information they learn and develop integrated strategies to help the workers transition.

## Communication

Boost allows for multidisciplinary approach by collaborating with all Boost entities, and industry experts through innovation exchanges

## Courses

Boost will provide long-term learning by always having up-to-date courses that arm the workers with the skills they need.

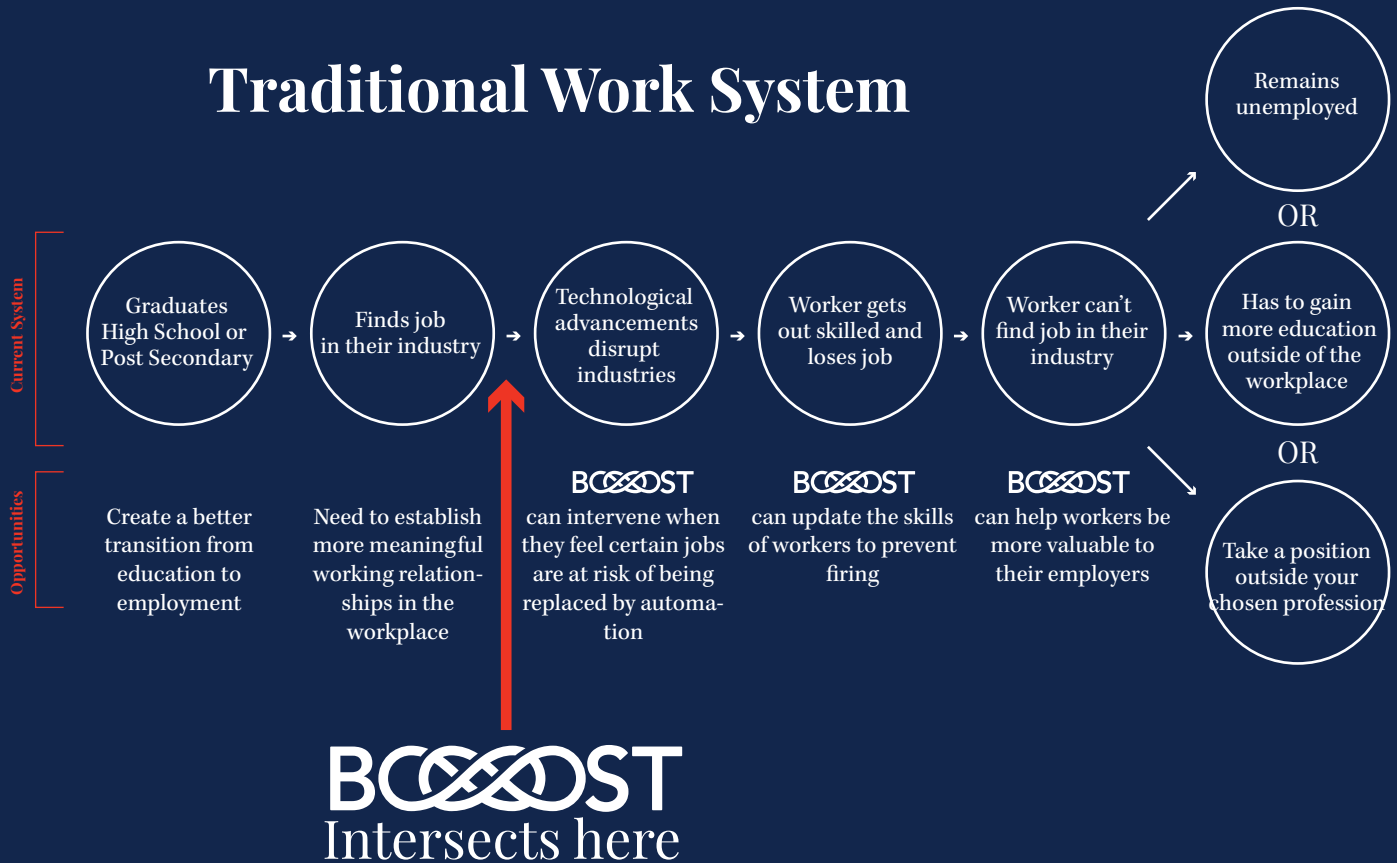
## Innovation

Boost will create tailor made strategies for the company and industry. They will be packaged and patent for revenue.

## Tools

Boost will provide the workers the tools and mechanisms they need to get up the speed, with the evolving industry.

# Traditional Work System



# Boost Exists in All Major Industries

Boost will exist in many industries. This will allow them to understand the interconnections between the technology and utilize that knowledge to learn from each other. It is through this that Boost will be able to grow and transition workers in a smooth and cohesive manner in order to provide the most stability and job opportunities for workers.

# Boost Exists at 3 Scales

## Boost Helps Workers

Boost will supply the workers with the opportunity to continue to evolve within their chosen profession. This will be possible because Boost will always be evolving and understanding what is coming next in an industry, and create strategic plans for workers to grow with the technology that is happening in every industry. This will maintain a smoother transition for workers and allow workers companies and industries to maintain the continuous alignment between workers and their jobs.

## Boost Helps Companies

Through research, Boost will be able to make predictions into the future of work and industries in order to understand what skills the workers will need most in the future. This will allow for them to maintain the stability of the economy and maintain a smoother transition during time of rapid change within an industry.

## Boost Helps Industries

Boost will alleviate the stress associated with maintaining skilled workers in their industry. The corporation will only have the responsibility of maintaining their revenue stream, and supplying the workers with jobs. The company will help supplement the funding of Boost in order to mutually benefit from the skills Boost is developing for their workers. Boost also can present that companies with opportunities to advance with technology through the research Boost is acquiring. This can allow the workplace to continue to grow, and maintain the ability for the company to create jobs for people.

# For Workers Boost Can

## Boost Your Skills

Boost will provide workers with the skills they need to remain in the workplace. We have established a research team that will identify the most in demand skills of the future and utilize that knowledge to give you the skills that you need in order to thrive in the workplace. These are both hard and soft skills, that are accessed in-person or remote in order to continue building and learn throughout your career.

## Boost Your Income

Boost can advocate for workers to be equally compensated for their abilities. With the rise in demand for specific skills, the compensation inequality of certain ability is becoming larger. Boost will provide workers with a skills assessment that utilizes Artificial Intelligence to audit your skills and ensure the proper compensation for your ability. If you are not Boost will advocate on behalf of level of skill that you have, and if you want to continue to build your skills set, Boost will offer the opportunity for you to increase your income by providing you with the courses you can take to enter a higher pay equity.

## Boost Your Network

Boost creates a network for workers to turn to if they feel as though they are falling into or already have fallen into worker displacement. Boost does this by engaging in round table discussions with workers, and through the reciprocal participation within programs Boost creates. They will also provide workers with access to an Online portal that connects them with people from all different industries learning similar skill sets. This will allow workers supported by Boost to meet people that can support them. By creating this network Boost will create a more secure working industry for people to feel empowered and feel advocated on behalf of.

# For Companies Boost Can

## Boost Your Employees

Boost knows that an emotional connection is important for workers in the workplace. It can increase their productivity, and creates a better atmosphere for everyone which has proven to increase the bottom line of a company. The Boost team has academic specialist that utilize the research collected, and develops tailor made educational programs in order to provide companies with the highly skill level possible for their company. By investing in the workers and providing them with more than just a job, Boost provides companies with the ability to benefit their company and their workers.

## Boost Your Loyalty

Boosts investment in your workers will allow them to feel validated and appreciated within your workplace. This connection that is will provide them with more than just a salary, training or benefits, as Boost likes to create an open dialog with workers, companies and industries in order to innovate the best possible future. In order to do this, Boost will engage with the workers through workplace events and workshops that allow them to gain insight into what it is the workers want to see happen in the workplace and integrate that with what the industry and company needs to maintain their employment.

## Boost Your Capabilities

Boost will increase your ability to remain relevant in the industry. Due to the research generated by our team, Boost can better understand what aspects of the industry will be eliminated or have a decline in human participation due to automation and what skills will remain. Through the identification of these aspects, Boost will be able to provide companies with case studies that outline possible futures for their companies. This can Boost the capabilities of your company and also allow you to remain relevant in the fast evolving future.

# For Industries Boost Can

## Boost The System

Boost provides industries with an overall picture of what is happening in the workforce. It can be hard to innovate and evolve within a system that you cannot understand. Boost has established a research team that studies the disruptions within the workplace and can provide industries with an overall view of what is possible for the future. Through workshops will engage with industries specialist at all levels of employment to get the best understanding the industries future. This research can generate innovations for the industries, and devote people to problem solving, growing, and mitigating risks in the workplace.

## Boost The Transition

Boost will leverage their knowledge across industries to develop integrated strategies in order to bridge the gaps caused by automation and transition industries and all parties down the supply chain with a smooth transition into the future of work. Through workshops they will inform workers, and other professionals within industries of these disruptions, and provide training programs to educate them on how they can best combat by up-skilling the workers through these large system changes.

## Boost The Connection

Boost creates interconnection between all the different industries. By creating a network across many industries through the hosting of innovation exchanges, Boost will create connection within the working sector. This allows them to learn from each other and build on the learning from all the different industries. This will allow for more stability and support during times of rapid change. This will allow them to not only build on what exist, but innovate past what they thought was possible for industries. This can increase the productivity, and bottom line of an economy, and provide the workers down the supply chain more job security, and increase the wellbeing of an area.

## BOOST Anticipation

Boost provides insight into the major disruptors through purpose-driven research into the future of working conditions for people in order to help reduce the risk associated with the growth in automation and other technological advancements for workers. Utilizing industry experts Boost will facilitate workshops that drive a conversation into the disruptors facing the workforce in each industry so they can utilize those insights to drive change in a way that values people in an age of automation.

## BOOST Preperation

Boost provides workers with education within the workplace. These are done through courses and workshops created by the insights that is gained through the research that has be undertaken in order to create a strategic plan that will ensure the longevity for workers within the industry and provide companies with highly skilled workers in the workplace. The aim is to upskill the workers inside of their industries. Allowing them to maintain employment, gain experience and have knowledge at the level that companies require.

## BOOST Analysis

Boost measures skills through their analysis process. This allows them to better understand and quantify the abilities of a worker, ensuring a more equal and stable measurement for compensation in the workforce by making the process of decided on a person's salary less bias based and more fact based. Through assessments and skill audits Boost will provide workers with any additional skills they need, as well as additional compensation when gaining the ability to do a skill they didn't have before.



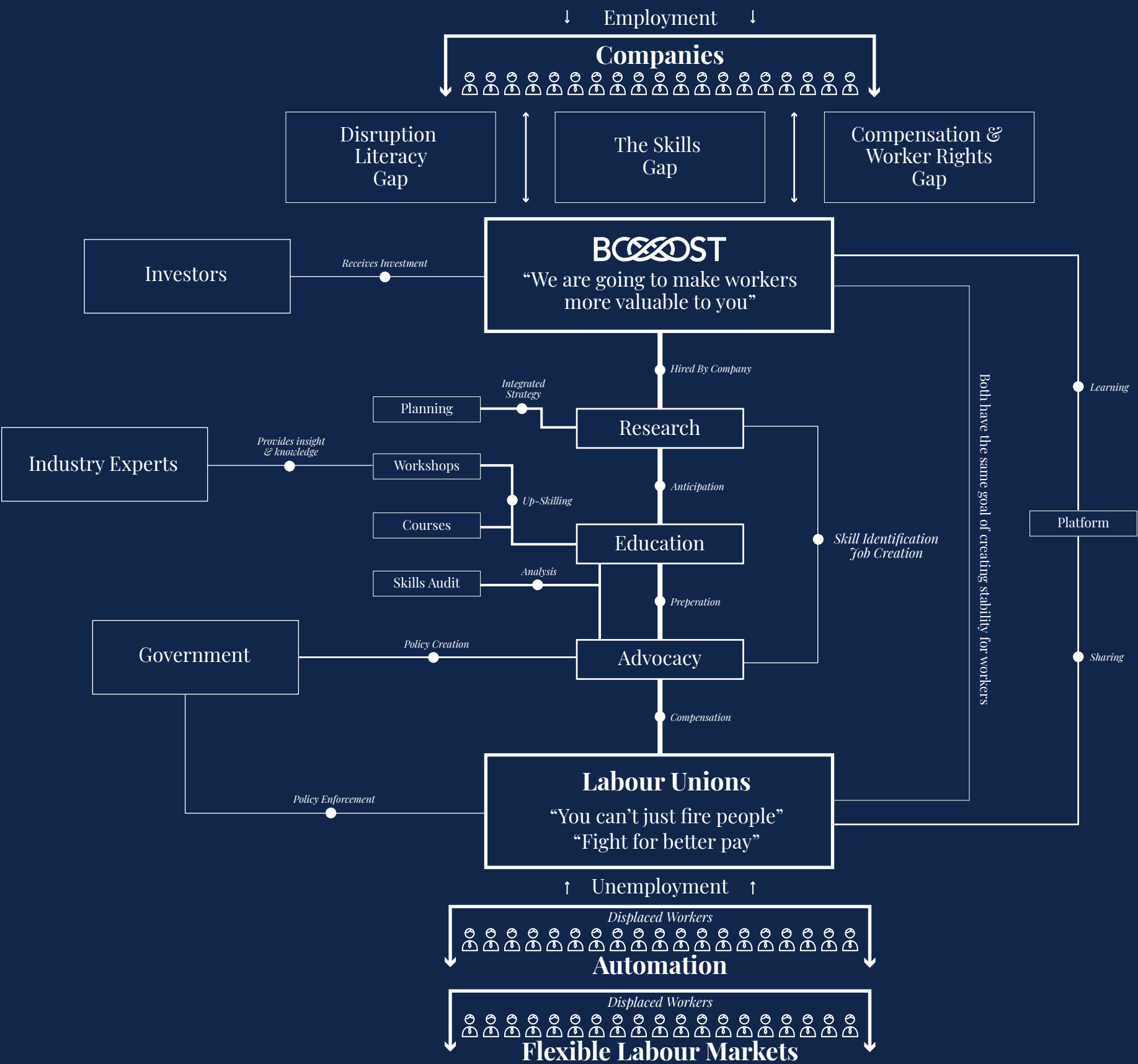
# BC∞ST Compensation

Boost provides advocacy on behalf of the skills workers have within companies. After workers have had their skills assessed, Boost will ensure that they are properly compensated for that ability. Boost will ensure that this is upheld by working with government officials developing the policy necessary to prevent this current inequality that exists in the workforce. This advocacy will be in the best interest of the companies, because although they do have to compensate the workers, they will save money in many other areas such as productivity, and the high cost of hiring workers.

# BC∞ST Sharing

Boost will be generating a lot of insight into the future disruptors and how to best combat these issues. While doing this they will be generating case studies of what to do in these situations. In order to help as many people as possible, Boost will create a platform utilizing artificial intelligence to compile all of these case studies and innovations into the future in one centralized location. This platform will be able to help any company, worker, or industry understand the information, and transition in the future. In this portal you will be able to ask questions, input scenarios or state problems and the platform will help generate possible solutions or answer questions for anyone who needs it.

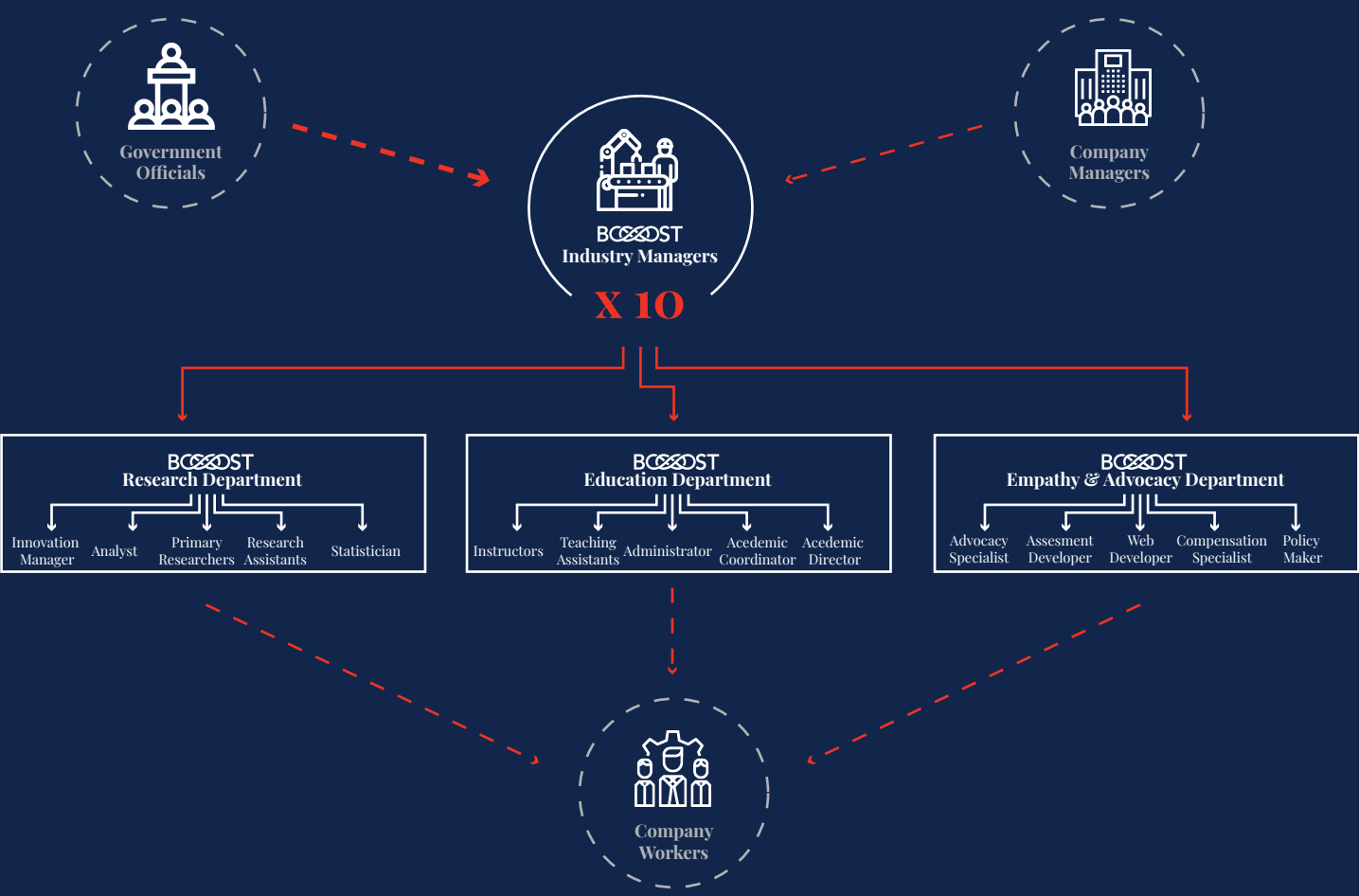
# The System



The goal of Boost is to be adaptable and flexible to change. This means that boost needs a governing system that has the ability to evolve with industries, companies and workers in order to meet their needs and fulfill their requirements in terms of skills needed.

Boost will operate utilizing a hybrid governance model.

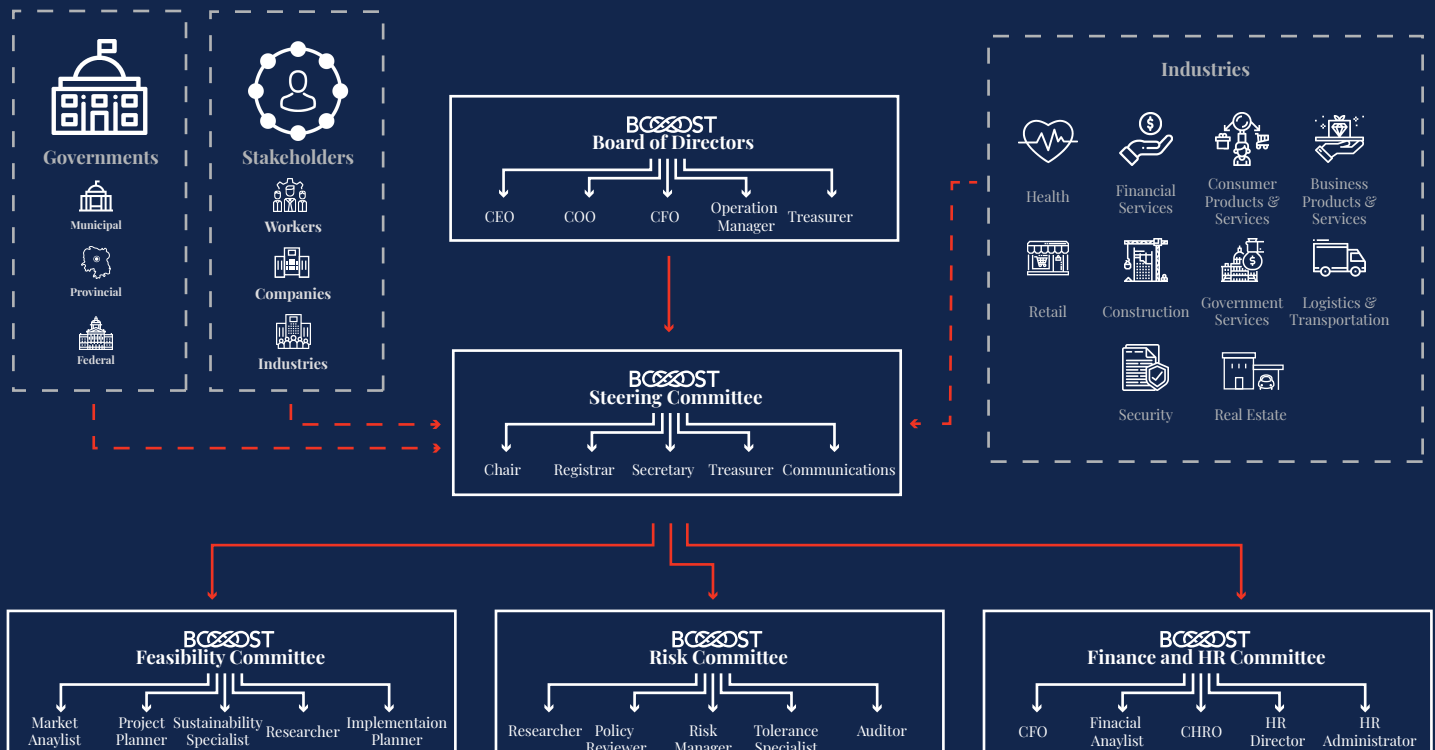
Decentralized BC&OST Governance



However, it is still necessary develop a cohesive message

This is why Boost will utilize the principles of a centralized governance model when large decisions have to be made affecting entire industries, or multiple industries.

Centralized BC&OST Governance



By utilizing the two forms of governance, Boost will be able to obtain their goal of maintaining meaningful employment in people, and help unlock the value in people.

This will be done by taking advantage of the highly flexible system decentralized systems have, while aligning a cohesive message when necessary, through the use of more traditional centralized governance models.

# How is BC∞OST Governed?

## Boost will operate utilizing a hybrid governance model.

This is because the decentralized systems allow for more flexibility while a centralized system can provide a cohesive structure when industry alignment becomes pertinent.

## Why have Decentralized Governance for the front lines of BC∞OST?

Decentralized governance models provide the creativity that is necessary for Boost to continue to evolve the worker's skills as the industries change. By creating this highly flexibility model, Boost can quickly respond to the industry and respond to any errors that are made, this is because a decentralized system allows for decisions to be made at every level of the chain of command, and helps to empower the employees at Boost. This model will allow for the workers at Boost to feel ownership of their tasks, and allow for more people to have input a problem allowing them to respond and resolve an issue at the rapid pace that will be necessary in the future. Also, due to the large network of people that this system provides, the workers at Boost who are working hard to help the workers will have more people to speak with, and communicate to try to come up with the best innovations possible. Between this, and the connectivity that our resources have the capabilities of allowing, a decentralized system in the front lines at Boost will be the best method for creating a company with the goal of maintaining the continuous alignment between workers and their jobs.

Centralized governance models provide a more cohesive plan for companies to trickle down their chain of command. This system allows for better forecasting, which will allow for a more smooth, and planned transition into the future. And although this isn't a good governance model for the very rapid everyday changes within an industry, this system will be utilized for the large impacts on the on whole industries, for things that can be done in a timelier manner, because they take place over a longer period of time. A centralized governance structure will be beneficial during these larger system impacts because it will allow for continued alignment it with the workers across all industries with a clear strategy attached. There are many benefits to a centralized governance model, one of the largest benefits will be the quality it will provide during these changes. Due to the fact that this system can create one clear message that can be funneled out across all companies within an industry, a centralized governance model will be the best choice in some circumstances, which makes it very important to the longevity of the ability for Boost to maintain the alignment between workers and their jobs.

## Why also have Centralized Governance Models for BC∞OST?

# Worker Disruption Timeline





# BCOOST Timeline of Worker Disruptions

### Legend

—● **Benefits**

— — ● Issues

Navigation

## Created Mass Production Increasing Affordability

This meant that companies were able to be significantly more productive, and manufacture more product at once by splitting apart small repetitive tasks. It was due to this change, and the mechanization of task that companies were able to decrease the cost of producing an item.

## Improved the Standard of Living For The Middle Class

Externally from the conditions that took place in the mills, factories and mines, the industrial revolution was able to increase the standard of living for the middle class because it increased the wages, and allowed for more people to be employed.

## Provided more stability for workers and merchants

Prior to the mechanization and factories merchants supplied workers with raw materials that they then used to create finished products. However, due to the unstructured nature of pre-industrial societies in the workplace, a lack of scheduling often led to inefficiencies for the merchants to receive goods.

**Created more connectivity  
between people and jobs**

The Internet allowed for people to be connected from anywhere in the world in ways that we couldn't have imagined before it happened. It allows people to create offices anywhere they want, and keeps people up to date with what they need.

Created a large number of jobs  
90% of which were brand new

The invention of digital computer lead to a lot of job creation because it opened up all types of positions for people who knew how to utilize this technology. At first these were jobs like typing up hand written notes, but later grew into larger professions.

**Limited Production Left**  
**Limited Resources for people**

Due to the handcrafted nature of pre-industrial societies left production occurring at a very slow rate. This left people with little resources to obtain the things that they needed and had people producing a lot of the things they needed in their homes.

**Made workplaces unsafe  
due to a lack of regulations**

The positions that people were now able to obtain and this lead to a lack of training from companies, resulting in unsafe working conditions for employees. This mean that people were getting injured on the job, making workplaces more dangerous. There was also a lot of child labour happening at the time, which made workplaces even more unsafe.

## Unskilled worker were left with little job security

Due to the fact that the jobs that were created during this time were easy to train for, people became very expendable because they could bring in new workers to do the same job, and minimally train and invest into these workers as well.

## The need to have higher skills made for greater inequality

The technology the digital computer brought mean that people needed to learn highly sought after skills. This allowed for companies to increase the salary of people with these skills, however, this resulted in a large pay gap for those who didn't know how to use computers.

## Millions of workers displaced without adequate transitions

When digital computers became accessible to the mass market many jobs were displaced, these were jobs like traditional draftsmen, payroll distributor, and librarians in most workplaces. These positions didn't find adequate transition methods to ensure a smooth transition. Workers were often required to formally re-skill in order to obtain new credentials.

## Work and the production of goods was time consuming

Prior to the industrial revolution workers had to create products from start to finish utilizing many skills in order to complete a task. This made the process of making very time consuming and labourous to the worker.

## 1700s

## Steam Engine Trains

## 1800s

## 1900s

## 2000s

**iPhone  
Released  
2007**

**The Industrial Revolution 4.0**  
We are on the brink of the next revolution of change.  
Cloud and cognitive computing will be utilized for  
the distribution of knowledge.  
(Unknown)

## Pre -Industrial Society before 1760

This was a time before machines and automation were able to preform tasks to alleviate the stresses on workers. At this time workers were artisans who were generalists creating products from start to finish in small batches, generally made for their own household.

**People created the things they needed.**  
**(Manual Production)**

## The Industrial Revolution 1760-1840

This was a time where water, steam and coal was used to power mechanized machines to help workers create items in bulk. It was a time where production became significantly more efficient, and produced at a large scale. This mechanization allowed for work to become less labours and faster.

**Used coal, water and steam to manufacture Products (Mechanical Production)**

## The 2<sup>nd</sup> Industrial Revolution 1870-1914

At this time electricity was used as the main source of power for machines producing items in mass. This was when the first assembly line was built utilizing automation, and worker grew further into their specialties working once single task along the assembly line.

**Used electricity in order to develop advancement.**  
**(Mass Production)**

## The Digital Revolution 1950-now

At this time workers saw a large increase in the capabilities of automation. This is when systems could be programs and operated by machinery, reducing the number of people needed along an assembly line. It also allowed for inventory management, and planning of resources. This resulted in the beginning of Supply Chain Management.

**Used computer and the internet to utilize information (Digital Production)**

**Steam Engines lead to the begin of extensive mobility for people outside of their immediate surrounding**

**Historically technological advancements has created more jobs than it displace in the workforce**

**When these large revolutions were affecting workers negatively the rebelled for what was right.**

**While increases in technology have many benefits, we can't forget the value that people bring to the system**

# The Problem

Society is going to experience a new revolution of change and our systems are evolving at a rapid rate causing an uncertain future that is difficult to plan for. There is a large need to anticipate these changes and develop a strategy in order to accommodate and transition workers for the evolutions within our systems.

**We are in a new period, where people are being undervalued in the workforce.**

New innovations in robotics, automation, mechanization, computerization, and artificial intelligences, have created workplaces that can operate with seemingly little to no human interaction. To understand how we could reintroduce the value of people within the workforce, we need to understand what the problem truly is in the 21st century. Through our research we have identified key problems and gaps that make up the issues surrounding future work.

The Automation Crisis  
The Identity Crisis  
Rapid Evolution Within Industries  
Gaps In The Workplace

This isn't the first time a major shift has happened in the workplace. Throughout history there has been disruptions due to technology and advancements in many industries. We have seen revolutions in art, finance, and most famously, The Industrial Revolution when mechanization and automation had a large affected economics, cultures, and society as a whole. These disruptions can often lead to large displacement in the workplace, and have an affect the physical and emotional wellbeing of the people involved. While The Industrial Revolution is knowing for its increase in productivity due to Mass Production, this was also important due to the creation of Labour Unions. These unions were created as a response to unfair working conditions caused by the large increase of job opportunities, and the easy train-ability of these positions in factories, mills and mines. This jobs often left adults and children bad positions, and after many years' people put a mechanism in place that advocated for the employees at these companies and provided them with safer working conditions, an increase in wages, and standardization of working hours. This moment in time shows us that people are highly adaptable in times of change, and when something is fundamentally wrong, solutions will be created to help people.

We have reached this time again, what we haven't decided is how we will combat this new revolution in our industries.



# The Automation Crisis

**By 2030 the global workforce will see around 30% of jobs become automated. This is a huge portion of the population, and with this, as many as 375 million workers which is roughly 14% of the global workforce may need to switch their careers.**

McKinsey, 2017

In the coming years it is predicted that much higher volumes of people are going to be affected by automation, and that it is going to impact every industry, making this revolution of change in automation different than ever before. Automation can make work safer, and more efficient for both the employees and the corporations and it also can increase the productivity bringing more revenue to companies. However, this can have negative impacts to the critical earnings of the workers within these industries, due to its ability to minimize the need for human assistance by reducing the need for mental labour. In the past we have seen automation and mechanization have similar impacts on artisans in pre-industrial societies. However, due the wide spread ability to access higher learning in the 21st century, this wave of automation is going to be much larger as people and machines gain more intelligence. Automation and mechanization will not be isolated to simple repetitive assignments, as machines are becoming capable of performing tasks that, in the past, could only be executed by a human. These are jobs like doctors, and lawyers, as well as positions such as food preparation, farming, and fishing.

Although many jobs can be lost due to automation, if proper planning and preparation is allocated to job creation and security we can better maintain continuous alignment between workers and their jobs. By valuing the people in the system, and developing strategies to help worker displacement can be minimized. While many people have speculated about the different possibilities for workers in the future such as, a reduction in working hours, or basic income programs, they all point to one conclusion which is that we need to come up with a plan to effectively transition people during times of rapid change.





# The Identity Crisis

In the modern society that we have created, our job can often be used in conversation as the defining factor of who we are as people. Whether or not that is an accurate representation or not, that is where we have outlined peoples purpose to be. Going forward in society this can lead to many issues surrounding the psychological effects of people in mass losing their jobs due to innovative technologies in automation, AI, computerization, and mechanization. We have entangled our identities with our careers, and when people lose their job it can often make them feel unwanted, or as though they are not required in society. An example of this can be seen in the Michigan, USA, where factory workers are being displaced due to automation. Government re-skilling has been 0-15% effective and 40-44% of those displaced workers have not re-entered the workforce. Half of these workers have ended up on disability, or worse.

**In the United States they have seen the number in life-expectancy drop, this is unheard of in developed countries, where they are losing more people to suicide then to heart disease.**

These are typically middle aged white men, which leads to the assumption that these may be the same workers who are losing their jobs. In the United States, only 42% of the workforce has higher than a high school diploma. This makes it hard for them to find new jobs to re-enter the workforce, which can leave them seeing a lot of rejection. There is a need for a transitional identity boost to ensure that people do not fall into the category of unemployed, as this is often viewed as a negative label our society puts onto people. It is very important to understand the implications that come with a person's identity, as this social identity attached to the workplace creates belonging for people within society which is something that needs to be maintained in the future.

(Yang, 2019)



# Rapid Evolution Within Industries

**In a report by the World Economic Forum in 2016, they found that “in many industries and countries, the most in-demand occupations or specialties did not exist 10 or even five years ago, and the pace of change is set to accelerate”.**

Throughout history we have seen many changes to our industries. However, in the past these changes have taken place over a long period of time. This gave society the ability to adapt at a slow pace, making small changes to the system until it functioned in a way that governments were satisfied. The industrial revolution spanned over two centuries, but as innovations into technologies advance, the gap between these changes keeps getting smaller. A great example of this was the adoption of the Internet, which has become vital to the survival of many businesses over the last 30 years. With this example the average person can see how fast technology is advancing with the notifications to update your phones, computers and Apps everyday.

The ability of the governing forces to maintain stability for people is getting farther out of reach within our current system. This means that people need to constantly be up-skilling themselves to maintain a job in order to not become skilled out of the industry completely. This constant re-skilling is resulting in a large skill gap in the members of society who do not have the time or ability to maintain a higher educational literacy because it often takes place outside of the workplace. This need to be more intelligent, and lack of on-site training mechanism is resulting in a lot of debt for people to try to gain the knowledge they need, and a loss in critical earning while gaining these skills. The rapid change in industries is resulting in companies hiring short term contract to contract workers to preform the skills necessary to complete single projects resulting in a push for more flexible labour markets. This transition into more precarious work is resulting in the gap between stability and instability for people in the workforce.

The adoption of these technological advancements is necessary, however, the lack of innovation in the relationship between work and education needs to become closer than was necessary in the past to accommodate for this rapid change that is affecting every industry.



# Gaps in The Workplace

## The Skills Gap

This is a gap between what an employer wants and the skills the workforce is able to offer. As technology increases, it is becoming more frequent that companies are seeking skills that people have not acquired yet. 87% of the students graduating from colleges think that they have the skills they need to enter the workforce, however, employers don't feel the same way. only 50% of managers hiring for the workplace feel as though the student actually have the skills they require for their work.

**There have also been studies put together that believe that 92% of the executives believe that workers are underskilled.**

This is a growing perception that affects not only recent graduates, but also exists at all levels of the workforce. It is causing workers to lose the stability that once existed in slower paced working worlds, that provided employee training on site. The skills that workplaces are requiring is creating this divide. Workplaces are growing more strict on the skills and experience they require for positions because people are becoming more educated. This is causing workplaces to stop investing in the workers at their companies, and instead demand that people come to them with the skills that they need. People were once able to obtain a job that could sustain a happy and stable life directly out of high school. This was possible because on the job training, and entry level positions provided people the ability to grow within the company, but over the years those same entry level positions have become easier to automate leaving people with the need to obtain a higher skill level to get a position that is now considered entry level. This is due to the gap that exists between the knowledge people can obtain and the knowledge people need to gain an entry level position. This is causing a rise in the inequality of knowledge based on a person's ability to learn. Due to the fact that now everyone needs to become highly educated to obtain the position they want, we are seeing more debt, and less ability



to remain skilled, because it is existing external from the workplace. Companies shouldn't be leaving employees to train themselves if they need skills specific to complete their tasks.

## The Disruption of Literacy Gap

There is a constant need to know what skills or knowledge will be necessary in the future, but, you can't prepare for something that you don't understand. Although it has been identified that change is coming, employment growth is declining all over the world, in all different industries, workers and companies will need to transition into future career paths. However, what is still unknown is what those future jobs are. This issue makes it hard for not only people, but companies, governments, and others affected by this change, to prepare and get ready for this rapid evolution.

You can't plan for the unknown, so how can you train a workforce to utilize skills for jobs that do not yet exist. More than ever before retraining within workspaces becomes more necessary. Jobs are out-dating themselves faster than ever before due to the rapid changes in technology, automation and computerization. It is vital that during this time we teach people skills rather than giving them specialized educations into a niche. The need to identify and train for these new careers in contrast to the old, will help to bridge the transitioning workers.

**While high level executives have expressed that they understand re-skilling their workers is of top priority, on average globally, 31% admit they lack the understanding of the skills that will be necessary.**

## The Compensation & Workers Rights Gap

Many pay inequities are known, and while income inequalities were closing each year from 1980 to 2000, the closure of the compensation gap has slowed since then. Although awareness surrounding these issues have become more known, with a rising advocacy for all people no matter their background, or circumstance, this gap is still a large and very real problem in modern society.

**We do not have the ability to measure, justify and audit the skills that people have in order to supply them with the appropriate compensation without bias.**

Currently employers currently gauge salaries based on factors such as, that companies reputation, the supply and demand of your talents, experience and education, performance, and the cost of living in an area. The trouble with all of these things is that they are subjective opinions based on the company, and are currently very hard to measure to remove personal bias and opinions. This makes it hard for compensation to be standardised to allow for workers rights to be properly met in terms of the compensation that they receive.



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