



Future-proofing youth with disabilities for the changing labour market

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Who we are

The Institute for Work & Health is a not-for-profit research organization based in Toronto, Canada

We conduct and share research to protect and improve the health of working people. Our research is carried out in two broad domains:

1. preventing work-related injury and illness through studies of workplace programs and practices, prevention policies and the health of workers at a population level, and
2. improving the health and recovery of injured workers through research on treatment, return to work, disability prevention and management, and compensation policies

Our research is valued by policy-makers, workers and workplaces, clinicians, and occupational health, safety and disability management professionals

Research funding

Tri-Agency Program Secretariat

- CIHR
- SSHRC
- NSERC

- To support **high risk, high reward** and **interdisciplinary** research
- To inspire projects that bring disciplines together
- Research that might fail, but has the potential for significant impact



Investigator team

	Institution	Disciplines
Arif Jetha	IWH	Public Health, disability
Ali Shamaee	IWH	Foresight
Cristina Banks	UC Berkeley	I-O psychology, workplace health promotion
Silvia Bonaccio	U Ottawa	I-O psychology, disability
Ute Bültmann	U Groningen	Life course epidemiology, disability
Monique Gignac	IWH	Social psychology, disability
Cameron Norman	OCADU and Cense Design	Foresight, public health
Peter Smith	IWH	Epidemiology, disability
Emile Tompa	IWH	Economics, disability
Lori Tucker	UBC and BC Children's Hospital	Transitional medicine

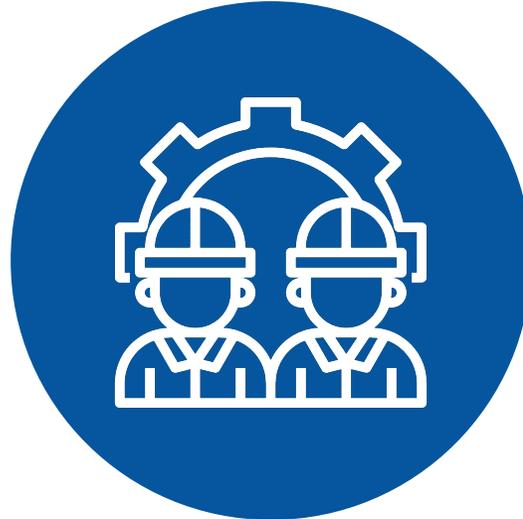
Jetha et al., (2020). Fragmentation in the future of work: A horizon scan examining the impact of the changing nature of work on vulnerable workers. *Under review.*

Open access pre-print available

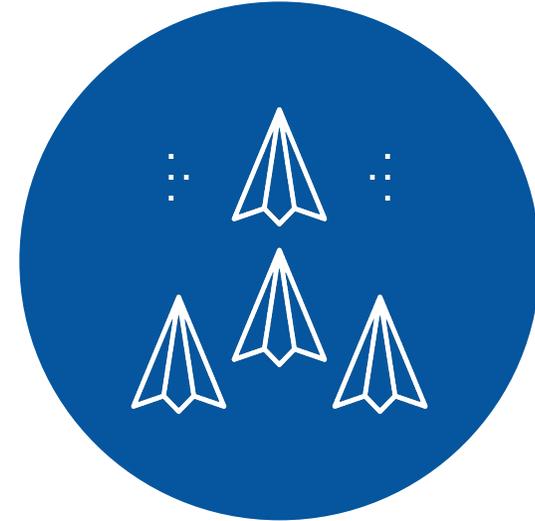
Take home messages



**9 medium-to-long
term trends that
characterize the
future of work**



**Impact of the
future of work will
be unequal**



**Opportunities
exist in the future
of work**

What is the future of work (*FoW*)?

- Large-scale and rapid digitization and automation of diverse domains of working life
- Coupled with social, demographic, political and environmental changes
- Reflects a dramatic change to every industry and transformation of all aspects of work
- Superimposed on top of ongoing industrial shifts, offshoring of work, growth in non-standard work arrangements



Knowledge gaps in FoW research



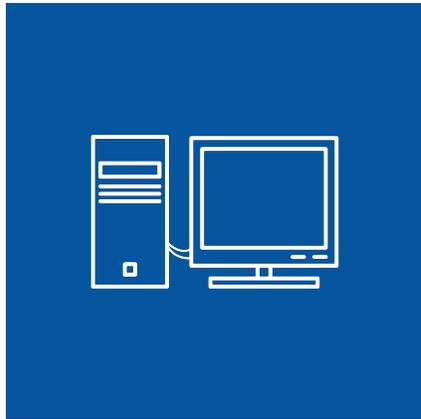
- Significant amount of research which has sought to project changes to the working world

What's missing?

- Experiences of diverse groups of workers within the FoW
- Public health implications of the FoW

Back to the future

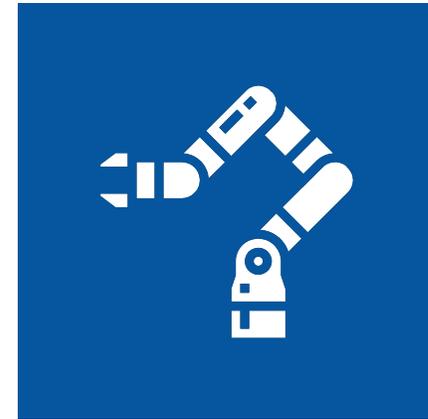
Past events provide a roadmap for how FoW might contribute to health and social inequities



1980s/1990s
Personal computers



2008
Recession



Automation

Who are vulnerable workers?



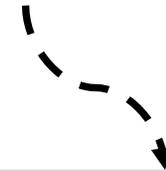
Exposed to adverse and unsafe work conditions

Lack access to employment legislation or statutory benefits

Lack opportunities to improve working conditions

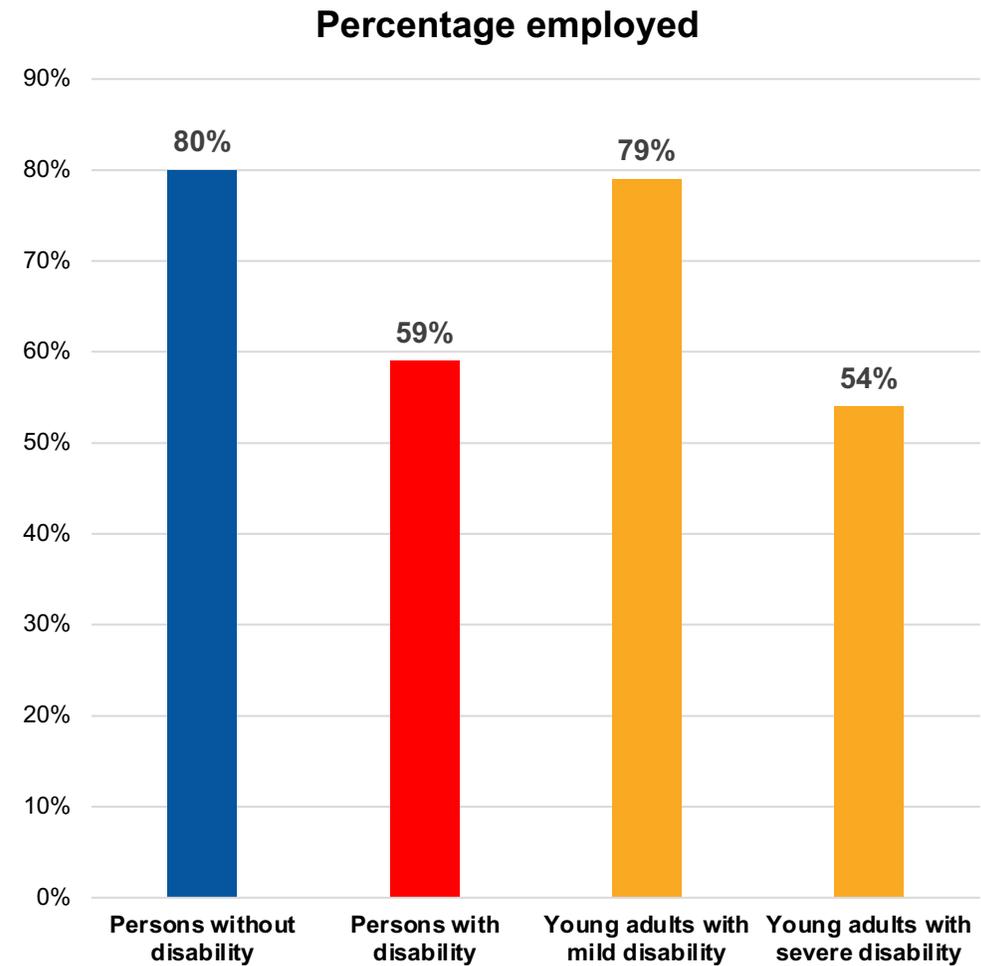
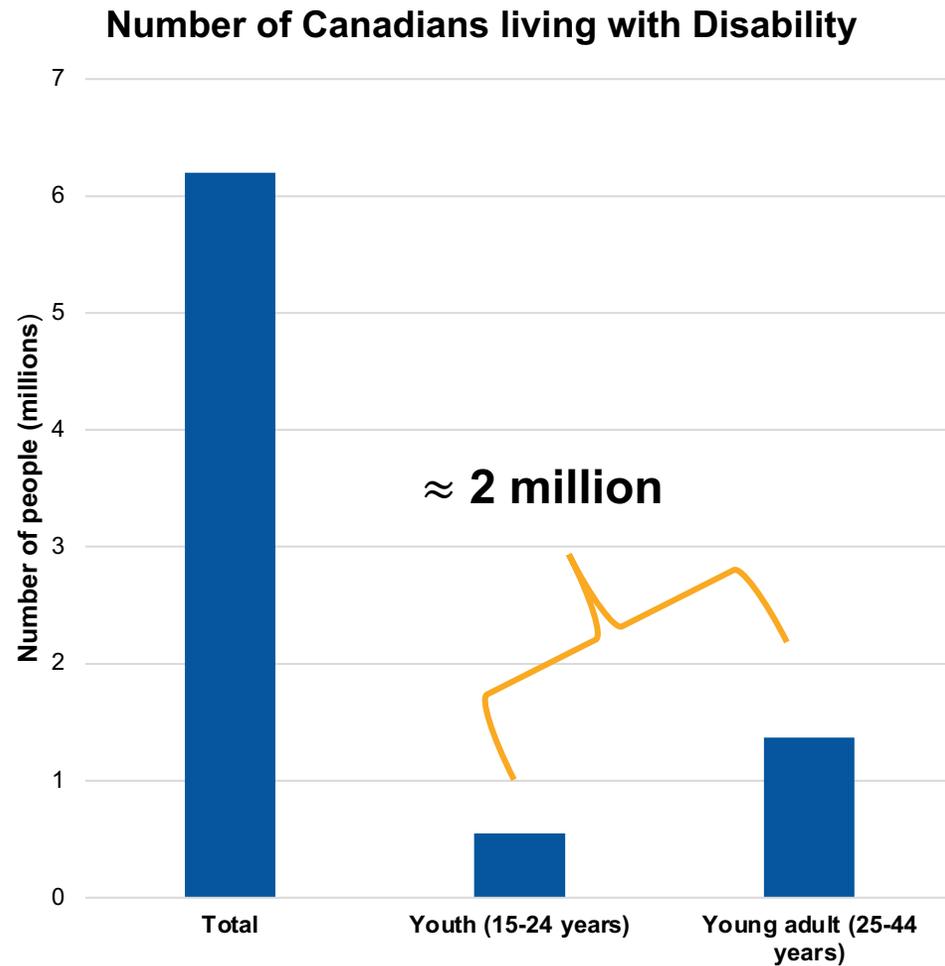
Earn low wages or experience employment instability

≈ 1/3 of Canadian workers experience vulnerability



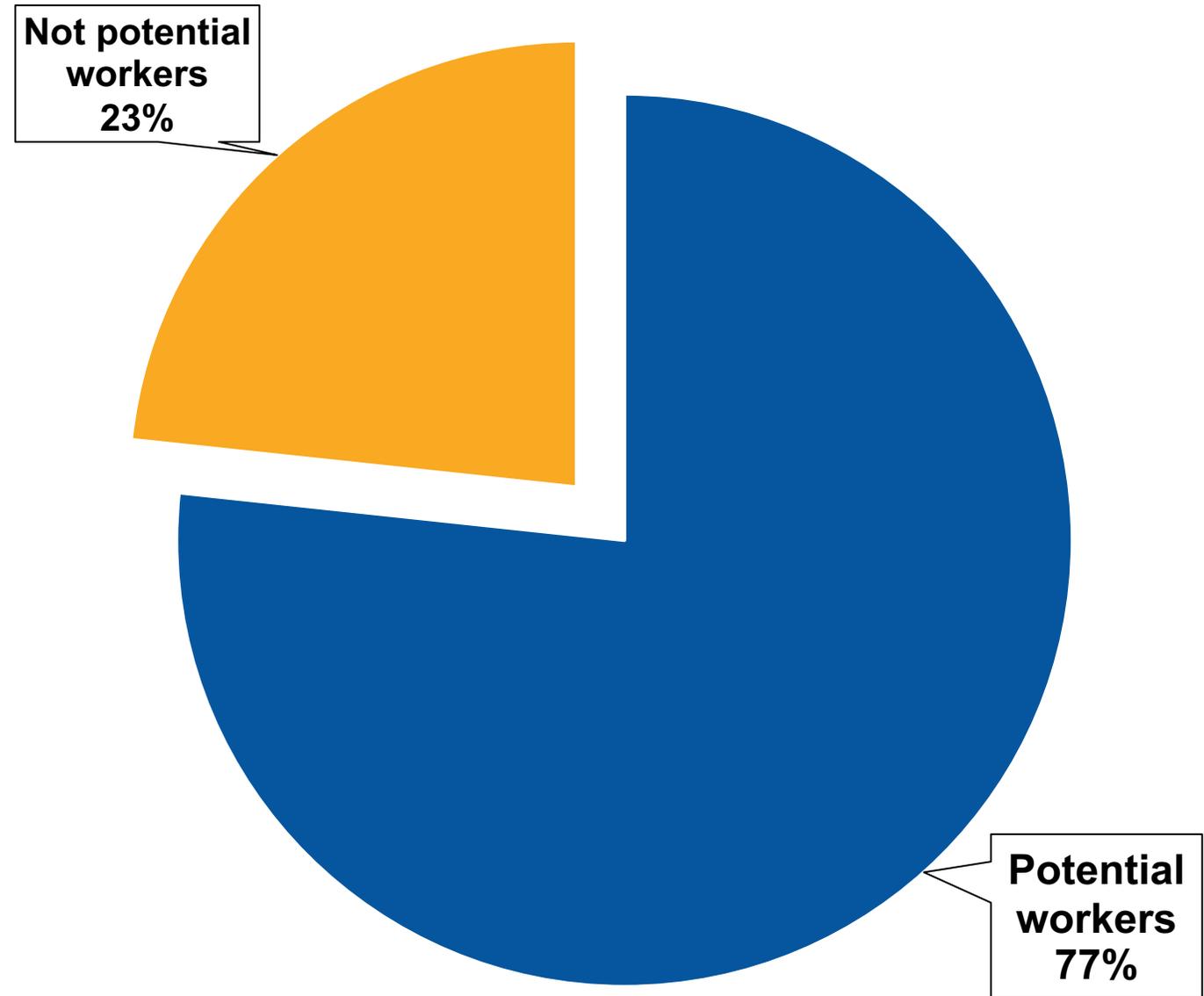
Women, visible minorities, immigrants, Indigenous peoples, LGBTQ2+, those with low socioeconomic status, people with disabilities

Disability and employment: Canadian snapshot



Disability and NEET

108,790 Canadian youth with disabilities neither enrolled in education nor employment



Research objectives

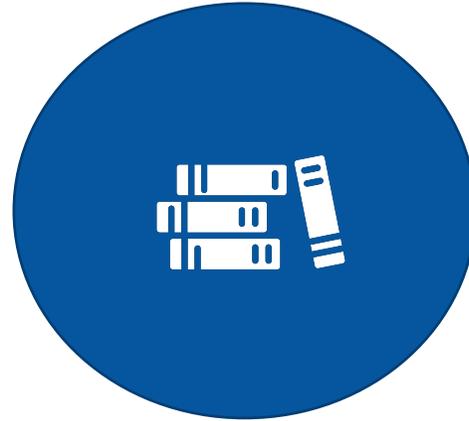
1. To identify existing evidence on different trends that may span social, technological, economic, environmental and political domains and characterize the future of work
2. To synthesize and describe how the convergence of the trends that we identified might impact vulnerability within the labour market
3. To determine thoughts and perceptions held by young people with disabilities regarding the future of work (*preliminary findings*)

Study 1: Horizon Scan

Horizon scan

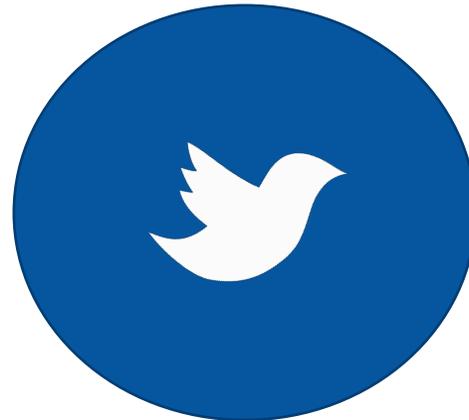
Systematic information-generating activity to identify trends that have the potential to emerge over time

- December 2019-
January 2020
- updated in August 2020



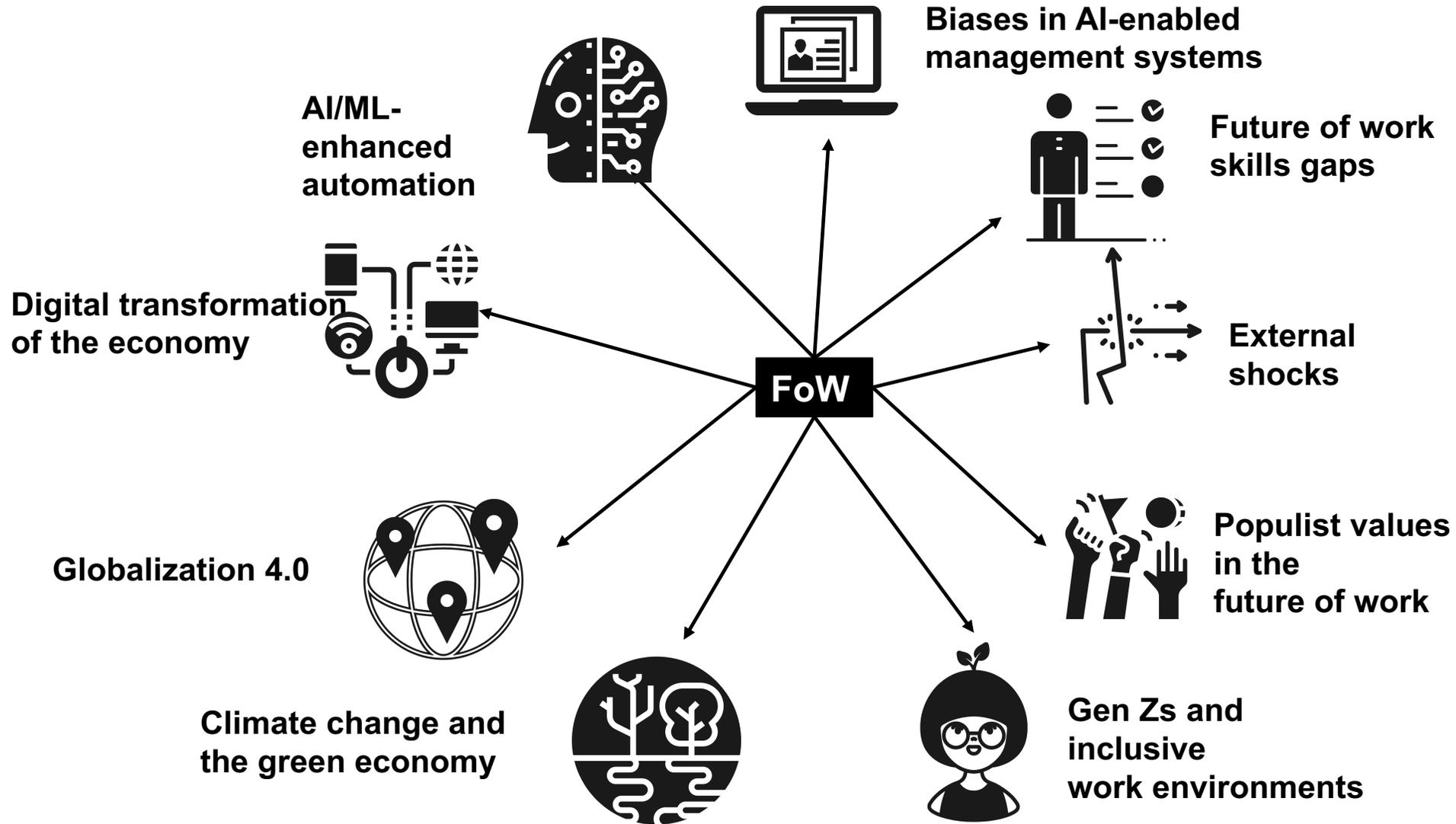
Peer-reviewed and gray literature

- ASSIA, Business Source Premier, IBSS, PAIS Index, Sociological Abstracts, WPSA



Twitter

- Tweets with moderate amount of engagement
- Tweet included a link to a specific resource



Trend 1. Digital transformation of the economy



Advancement and application of novel digital technologies that contribute to hyperconnectivity, advance telepresence, automate work, and increase reliance on mobile apps

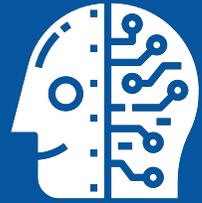


- Displacement of routinized and low skilled jobs
- Job tasks could be contracted out
- Competition for limited jobs
- Precious or unsafe working conditions



- Creation of new work opportunities
- Efficiency
- Accessibility to the work environment
- Flexibility work conditions
- Gig work could provide an entry point into the labor market

Trend 2. Automation enhanced by artificial intelligence and machine learning



Digital systems that replicate human intelligence and behaviours. Automate job tasks and make predications to perform complex work. Increase the requirement for humans to work alongside smart machines



- Displacement of those in routinized and low skilled jobs
- Professional jobs could also be replaced by machines
- Entry level jobs have greater physical demands and precarity



- New job opportunities
- Efficiency and accuracy of job tasks
- Workers with emotional intelligence could be in high demand

Trend 3. Biases in AI-enabled management systems



Algorithms used to inform the initial parameters of AI-enabled hiring and performance management systems have the potential to reinforce existing social conditions within a workplace



- Biases towards workers who didn't fit a pre-determined mold
- Potential for discrimination
- Exclusion from work opportunities



- Level the playing field by making HR decisions based on objective metrics

Trend 4. Future of work job skills gaps



Workers across all industries are required to possess advanced technical competencies, digital literacy and soft skills to obtain jobs of the future



- Low educational attainment or job skill readiness
- Barriers to upskilling or reskilling

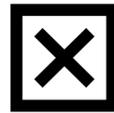


- Companies broaden their hiring to groups of previously overlooked workers
- Diverse lived experience and soft skills could be an asset

Trend 5. Globalization 4.0



Advancement of technologies will facilitate exchange of ideas, services and goods within physical and virtual environments across the globe

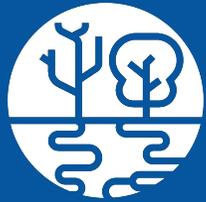


- Displacement of workers in blue and white-collar jobs
- Increased competition for a limited
- Worsen work conditions in other contexts



- Greater attention paid to addressing inequities within the context of globalization

Trend 6. Climate change and green economy



Extreme weather events will disrupt employment and contribute to lost productivity. The climate crises may contribute new job opportunities



- Jobs that are affected by extreme weather events
- Unsafe working
- Less access to safety nets during a climate crisis
- Barriers to obtaining green jobs



- New jobs may emerge in the green economy

Trend 7. Gen Z workers and inclusive work environments



Growing numbers of Gen Zs will enter the workforce. Gen Zs value inclusivity, diversity and social responsibilities



- Work environments more accessible and inclusive
- Employers adopt policies on work-life balance, work-from-home arrangements
- environmental sustainability
- Encourage job training

Trend 8. Populism and the future of work



Rejection of the establishment, elites and expertise by a growing community of people. Growing frustration and anxiety about the future among people who may hold populist sentiments

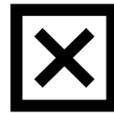


- Workers may experience discrimination
- Workers may be excluded from the labour market
- Policy change that limit work opportunities

Trend 9. External shocks and the future of work



Work significantly affected by external shocks such as an economic recession, natural disaster or global pandemic



- Job displacement
- Work conditions most likely to be affected
- Facilitate the automation of work
- Growth in populist sentiments



- Increased adoption of digital technologies may increase accessibility

Study 2: Interviews with young adults with disabilities

Preliminary findings

“

It's difficult for me to think about the future because I used to make plans and then life would go in very unexpected ways, so I just stopped. I'm trying re-grow that part of myself, the part that can sort of make plans and try and think about the future, but it's really hard to re-grow something that you've killed again and again for years.

“

“I don't think technology would be a good thing in my job because ... customers could interface with a computer screen and it tells them everything they want to know. What use are us to be there? We're dispensing information. The more technologically advanced things get it's the less likely they'll [employer] need us. Even the [fare] collectors, there's no more collectors in the [company] anymore because they've been phased out because of [digital payment systems]. Technology is a good thing but then ... it's a bad thing too...”

“

During that time when I was looking for a job and I applied to places and I would ask them about options for working from home, a lot of them would say, oh, no, we don't do that. But now, with this virus that is happening, almost everyone is working from home and I know a lot of those companies have employees that are working from home right now. I'm like, oh, was it just because of my disability, that you didn't want to hire me, or you just weren't thinking ahead in that kind of way at that time? It's something that I was thinking about because I feel like it's very easy for a lot of companies to do this. I think technology is very important

Discussion

- FoW will be fragmented and have health implications for the workers with disabilities
- Workers with disabilities could enter FoW at a position of disadvantage
- Determine how different digital technologies impact diverse groups of workers
- Interrelationships between technological innovation and social and political changes (e.g., AI, globalization and populism)
- External shocks contribute to an acceleration of change and may exacerbate inequities
- Unclear if opportunities will be available to people with disabilities

Upcoming FoW studies at IWH

- Interviews with policy experts, labour market specialists, disability employment service providers
- Delphi survey on workplace practices and policy supports that are relevant to the future of work
- Interviews with diverse young workers on thoughts and perceptions on the future of work



Are you interested in participating?

Thank you

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