

Work for Stake

Reimagining Ownership & Work in the Emerging Internet

By Aimee Burnett

Submitted to OCAD University

in partial fulfillment of the requirements for the degree of

Master of Design in Strategic Foresight and Innovation

Toronto, Ontario, Canada, 2023

Creative Commons Copyright Notice

You are free to

Share — copy and redistribute the material in any medium or format.

Adapt — remix, transform, and build upon the material. The licensor cannot revoke these freedoms as long as you follow the license terms.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following conditions

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

Non-Commercial — You may not use the material for commercial purposes.

Share Alike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

With the understanding that — You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation. *No warranties are given. The license may not give you all the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.*

Abstract

The modern labour economy is fraught with challenges, such as economic inequality, job insecurity, digital intensification and shifting labour market composition along the lines of skills, employer consolidation, and the profile of the average employee. Ownership has emerged as a powerful, growing, and increasingly accessible solution to these challenges, as it enables workers to reap the full material benefits of their labour and generate wealth and security in a digital-first world. However, despite a positive perception towards ownership, few workers participate in ownership models, such as co-operatives and entrepreneurship. This research investigates barriers to ownership optimizing behaviours among workers, the costs, risks, and benefits of transitioning to ownership, and the differences between employees and independent workers. The hypothesis is that experimenting with interoperable digital ownership tools can lead to disruptive worker-centred innovations that increase worker stake, such as capital ownership, capital income, and voice in decision-making. This research employs strategic foresight and design research methodologies to provide a structured approach to understanding complex systems and framing future scenarios and experimentation. Ultimately, this research aims to decrease precarity and increase agency for workers by laying the groundwork for practical innovations that enable ownership-driven security.

Acknowledgements

Nothing large or small is truly accomplished alone but milestones like the completion of a graduate degree, are the product of a communal effort of support, love, knowledge, and resource sharing. In this spirit, heartfelt thanks are due to the people who made the road to completion and the growth along the way possible.

To Gabe without whom I may not have lived to tell the tale and to whom this milestone is largely owed. Thank you for everything both big and small. For feeding me both literally and in all other ways. For the support, for the edits, for the joy, and for the partnership. You are my not-so-secret weapon, confidant, and thought partner. I can't wait to continue to build the next project together. Thank you for seeing beyond what is, to what could be. Your vision helps me have the courage to keep walking deeper into the unknown. One dedication is not enough.

To Suz for supporting and empowering me to take a leap of faith on this project. To take an ambitious project and trust that I could build the plane I needed to land it without a blueprint. For sharing the resources, tools, and wisdom I needed to get to the final stretch. To Tara for helping me get out of the woods. For pulling me out of an overwhelming and confusing pile of data in the eleventh hour with kindness, patience, and clarity. I couldn't have gotten to the finish line without your guidance.

To Alyssa without whom this experience would have been entirely altered. I can't imagine what this program would have been like if we hadn't met. You were the perfect partner in magic and learning. Thank you for being a present, kind, thoughtful, supportive, and brilliant friend every step of the way. To Katie for lending your guest bed, your deep and thoughtful conversation, your generosity, and time in facilitating my workshop, and your solidarity as a fellow SFI'er. Grateful for your friendship and our shared journeys.

To Nicole for always showing up and supporting me. You are a professional friend and community member and I have so much to learn from the care and presence you give to everyone you love. Forever grateful and honoured to have your care-focused perspective captured in this research. To Annie, the unexpected research assistant I needed most and least anticipated it. Thank you for your time and thoughtful gathering of source material that helped build the foundation of some of the themes and theories in this paper.

To my parents for showing up in the hardest moments and making sure I has what I needed to keep going when it wasn't clear that I could. Your constant generosity and practical support are inspiring and essential. To my friends, especially Allie, Lee, Becky, Christina, and Andrea, for continuing to check in on me even when I was a ghost. I cannot wait to celebrate, catch up, and move into the next phase of life with you all. Grateful for your love in the moments when I least earned it.

To Debbie and Rhi for all the late nights and late office snacks and working sessions. To Dallas and Elizabeth for spending your evenings helping me prepare for my case interviews that landed my first innovation consulting gig. To all the other smart and inspiring peers and teachers who made this program worth it especially those I had the chance to work with and learn from directly.

To my expert participants Joe, Nathan, Carlos, Cathy, Marjorie, and Steve, and to my workshop participants for sharing your life experiences and time to enrich this project, I am so grateful.

Table of Contents

CREATIVE COMMONS COPYRIGHT NOTICE	2
ABSTRACT	3
ACKNOWLEDGEMENTS.....	4
TABLE OF CONTENTS	5
LIST OF TABLES	7
LIST OF FIGURES.....	8
INTRODUCTION	10
RESEARCH QUESTIONS & HYPOTHESIS	11
METHODS.....	12
<i>Data Elicitation Methods</i>	<i>12</i>
CONTRIBUTIONS.....	14
LIMITATIONS & SCOPE	15
CONTEXT & OPPORTUNITY	17
WORKER CHALLENGES IN THE CURRENT LABOUR MARKET	17
<i>Theme 1: Rising Inequality</i>	<i>17</i>
<i>Theme 2: Growing Insecurity</i>	<i>18</i>
<i>Theme 3: Shifting Composition</i>	<i>18</i>
<i>Theme 4: Digital Intensification</i>	<i>19</i>
OWNERSHIP AS AN ANTIDOTE.....	19
EMERGING TECHNOLOGY AS A COMPOUNDING FORCE	21
REIMAGINING THE FUTURE OF WORK	24
FRAMING THE INNOVATION OPPORTUNITY.....	28
<i>Challenge Implications for Workers</i>	<i>28</i>
<i>Thought Starters for Solution Generation.....</i>	<i>30</i>
<i>Levers for Change.....</i>	<i>30</i>
<i>A Portfolio-Based Approach to Working for Stake.....</i>	<i>32</i>
METHODS.....	37
ANALYSIS & FINDINGS.....	42
WORKER DESIRABILITY	42
OWNERSHIP VIABILITY	47

TECHNICAL FEASIBILITY.....	51
ADVANCING WORKER-LED EXPERIMENTATION TOWARD BETTER FUTURES	52
CONCLUSION	54
BIBLIOGRAPHY.....	56
APPENDICES	65
APPENDIX A: OWNERSHIP BENEFITS SUMMARY TABLE.....	65
APPENDIX B: RECRUITMENT	66
APPENDIX C: INTAKE SURVEY QUESTIONS	67
APPENDIX D: MENTI IN-SESSION SURVEY INPUTS & OUTPUTS.....	68
APPENDIX E: POST-SESSION SURVEY QUESTIONS & RESPONSES.....	72
APPENDIX F: USER STORY CARDS	73
APPENDIX G: RETURN ON WORK CARDS.....	74
APPENDIX H: WfS CONTINUUM ACTIVITY	75
APPENDIX I: ARCHETYPES OF THE FUTURE ACTIVITY	76
APPENDIX J: RETURNS ON WORK ANALYSIS.....	78
APPENDIX K: EXPERT MIRO BOARD	79
APPENDIX L: VALUE CHAINS	80
APPENDIX M: INCENTIVES & DISINCENTIVES FOR OWNERSHIP.....	82
APPENDIX M: CULTURE INSIGHTS.....	83

List of Tables

TABLE 1 WORK FOR STAKE GLOSSARY OF KEY TERMINOLOGY.....	27
TABLE 2 GENERATING LEVERS FOR CHANGE: CHALLENGE IMPLICATIONS FOR WORKERS > THOUGHT STARTERS FOR SOLUTIONS > LEVERS FOR CHANGE.....	30
TABLE 3 RECOMMENDED ORGANIZATIONAL MODELS FOR EMPLOYED WORKERS	48
TABLE 4 RECOMMENDED ORGANIZATIONAL MODELS FOR INDEPENDENT WORKERS.....	48
TABLE 5 TABLE 8 DVF FRAMEWORK PRIORITIZATION GUIDE FOR WORKERS DEVELOPING WfS SOLUTIONS	52
TABLE 6 HIGH POTENTIAL SOLUTION-SPACES FOR REALIZING A WORK FOR STAKE FUTURE.....	53

List of Figures

FIGURE 1 CAUSAL LOOP DIAGRAM OF THE RESEARCH HYPOTHESIS	12
FIGURE 2 RESEARCH MAP - OVERVIEW OF METHODS AND OUTPUTS	14
FIGURE 3 LI JIN TWITTER THREAD ON CAPITAL OWNERSHIP (LI JIN [@LIJIN18], 2021)	21
FIGURE 4 LEADING OWNERSHIP ECONOMY TECHNOLOGIES, ILLUSTRATING THE SCALE OF THE OPPORTUNITY SPACE (VARIANT, 2022). ...	22
FIGURE 5 TWEET FROM @HOWARDLINDZON SHOWING THE TIME TO REACH A \$1 TRILLION MARKET CAP, DEMONSTRATING THE DECLINING NUMBER OF EMPLOYEES REQUIRED TO REALIZE MASSIVE VALUE AND RETURNS AND TO DO SO FASTER THAN THEIR LARGER COUNTERPARTS (McCORMICK, 2021).....	23
FIGURE 6 WORK FOR STAKE CONCEPT AND 6 KEY COMPONENTS	26
FIGURE 7 VISUALIZATION OF LEVERAGE POINTS FROM DONELLA MEADOWS'S SIMILARLY TITLED PAPER (EHRlichman, 2021)	32
FIGURE 8 INNOVATION AMBITION MATRIX OVERVIEW, PORTFOLIO, AND RETURN HEURISTICS (SLIDESALAD, N.D.)	33
FIGURE 9 INNOVATION AMBITION MATRIX RISK HORIZONS (SLIDESALAD, N.D.)	34
FIGURE 10 A WfS SPECIFIC ADAPTATION OF THE INNOVATION AMBITION MATRIX SHOWING DEGREE OF NEW MODELS AND DEGREE OF EMERGING TECHNOLOGIES USED TO VISUALIZE THE LEVEL OF INNOVATION AND RISK.....	35
FIGURE 11 THE WORK FOR STAKE CONTINUUM, A SIMPLIFICATION OF THE WORK FOR STAKE PORTFOLIO MATRIX.....	36
FIGURE 12 DVF FRAMEWORK AS CONTEXTUALIZED FOR THIS RESEARCH	38
FIGURE 13 VISUAL OF HOW THE DVF CRITERIA INFORM THE PLAYBOOK AND PROVIDE THE MEANS FOR BRINGING ABOUT A WfS FUTURE	39
FIGURE 14 IMAGE OF A PARTICIPANT FILLING OUT A RETURN ON WORK CARD IN THE CO-CREATION SESSION	40
FIGURE 15 DETAILED OVERVIEW OF THE RESEARCH METHODS, INPUTS, AND OUTPUTS	41
FIGURE 16 WORK FOR STAKE FIRST IMPRESSION WORD CLOUD FROM PARTICIPANT CO-CREATION SESSION	43
FIGURE 17 WORK FOR HIRE ASSOCIATION WORD CLOUD FROM PARTICIPANT CO-CREATION SESSION	44
FIGURE 18 MAPPING PARTICIPANTS' LIKELIHOOD TO ENGAGE IN OWNERSHIP OPTIMIZING BEHAVIOURS USING THE WfS CONCEPT AS AN ACTION TRIGGER USING THE B=MAT BEHAVIOUR CHANGE FRAMEWORK	45
FIGURE 19 OWNERSHIP RETURNS AND VALUE CHAIN SEGMENTS VALIDATED IN EXPERT WORKING SESSIONS.....	47
FIGURE 20 EMERGING TECHNOLOGY STACK FOR ENABLING OWNERSHIP EXPERIMENTATION WITH INTEROPERABLE, COMPOSABLE ONLINE TOOLS	51
FIGURE 21 EXAMPLE OF CREATOR ECONOMY HORIZONTAL AND VERTICAL TECHNOLOGY STACKS TO ILLUSTRATE HOW ALREADY FAMILIAR TOOLS ARE COMPOSABLE AND CAN GENERATE NEW MODELS AND UNLOCK NEW WAYS OF WORKING (McCORMICK, 2021)	52
FIGURE 22 WfS CONTINUUM AS INNOVATION PORTFOLIO STRUCTURING FRAMEWORK INCLUDING POTENTIAL RETURNS AND SAMPLE PORTFOLIOS GENERATED BY PARTICIPANTS IN THE CO-CREATION SESSION	50

“The goal is for most workers to have a stake in the places where they work, an opportunity to share profits, and to have a voice in their workplace.”

– Marjorie Kelly (Expert Interview, 2023)

“We believe the next generation of the internet will transform users into owners.”

- Variant Fund (Variant, 2022)

Introduction

As trust in employers and institutions declines, economic and job loss anxiety rises, real wages continue to stagnate amid inflationary pressures, and workers face growing market and technology-driven challenges (Edelman Trust Barometer, 2022; Kruse, 2022), the most common labour relation in modern mixed economies remains the "work for hire" employment model (I. Government of Canada, 2021; S. C. Government of Canada, 2022; Hansen, 2021). Despite the rapidly changing context and declining outcomes, worker behaviour remains unchanged.

Ownership is a powerful avenue for solving many of the challenges workers are facing in the modern labour economy including supplementing wages, because "ownership shares increase in value over time, generating wealth and security" (Fifty by Fifty, n.d.). Workers' ability to sway their work environments to serve their interests and "reap the full material benefits of their labour" as key stakeholders in enterprise value creation, is contingent on an ownership stake (*Chen & Chen, 2021*).

The intersection of ownership and work is the genesis of well-known concepts like co-operatives and entrepreneurship. While these ideas are well explored, widely understood, and generally perceived positively, few workers really understand how they work and only a minority participate (NCEO, 2021; O'Brien, 2018; Thorpe, 2019). For instance:

- Less than 10 percent of workers are entrepreneurs who employ others (I. Government of Canada, 2021; S. C. Government of Canada, 2022; Hansen, 2021)
- Employment in and revenue generated by co-ops, already a relatively small segment of the overall labour market, is declining (Duguid & Karaphillis, n.d.; Government Of Canada, 2023; Stuvén, 2022; United States Federation of Worker Cooperatives, 2022)
- "Only 24 percent of workers have ever exercised their stock options or sold shares they received through equity compensation" (O'Brien, 2018)

Despite a general awareness of and positive sentiment toward the significant opportunity ownership represents, there has not been a significant shift in worker behaviour to optimize for ownership. In addition, a study by Rutgers' Institute for the Study of Employee Ownership and Profit Sharing, revealed that capital income as a percent of wages and salary for middle-class workers dropped by 53% from 1979-2018 signalling that not only are capital assets consolidated, but capital income is also even more so (capital assets and capital incomes are the two key components of capital ownership) (Kruse, 2022). This capital concentration suggests that while ownership is a strong candidate for solving worker challenges, it is not an explicit strategy with clear tactics for a critical mass of employees.

At the same time, "ownership is becoming a keystone of new experiences across all categories of software products" (Variant, 2022). New digital ownership opportunities with the capacity to transform users into owners vis-a-vis powerful and increasingly accessible technological and financial tools (McCormick, 2021) continue to emerge thanks to the blockchain-powered 'Internet of Ownership.' Furthermore, the value created by attention, time, economic gains, and culture are shifting to digital-first models and behaviours (Wang, 2017; Lomas, 2023; Moody, 2021), signalling that ownership is likely to become digital-first too. The interoperable,

low-barrier nature of these tools signals a world where ownership becomes digitally integrated, and more easily actionable in the near term.

However, awareness and positive perception are not enough to drive behavioural shifts. Regardless of their power and promise, emerging ownership technologies are likely to face the same challenges of consolidation, low participation, and limited behavioural shifts around optimizing for ownership among workers. How might we shift that?

Research Questions & Hypothesis

This research aims to understand the barriers to ownership optimizing behaviours among workers. For instance, why individuals may or may not feel capable of driving ownership outcomes, what external contextual factors may make executing this behaviour difficult, and whether the benefits of ownership are clear and actionable (The Decision Lab, n.d.). To build this understanding, the following lines of inquiry will be investigated:

- What approaches would encourage workers to adopt more ownership-optimizing behaviours?
- What supports might help workers experiment with ownership successfully?
- What are the costs, risks, and benefits of a transition to ownership?
- How do the answers to these questions differ for employees and independent workers?

The answers to these questions will inform the central inquiry of this research: how might workers use composable online tools to enable ownership-driven change?

The hypothesis of this research is that worker-led experimentation with interoperable digital ownership tools can lead to worker-centred innovations that increase worker stake (e.g., capital ownership, capital income, and voice in key decisions) within the enterprises and communities for which they generate value. The goal of this research is to lay the groundwork for practical innovations that disrupt dominant labour economy cycles by enabling adaptive behaviours and framing opportunities for ownership-driven security. Ultimately, this research aims to contribute to decreased precarity and increased agency for workers (see Figure 1).

R = Reinforcing
B = Balancing

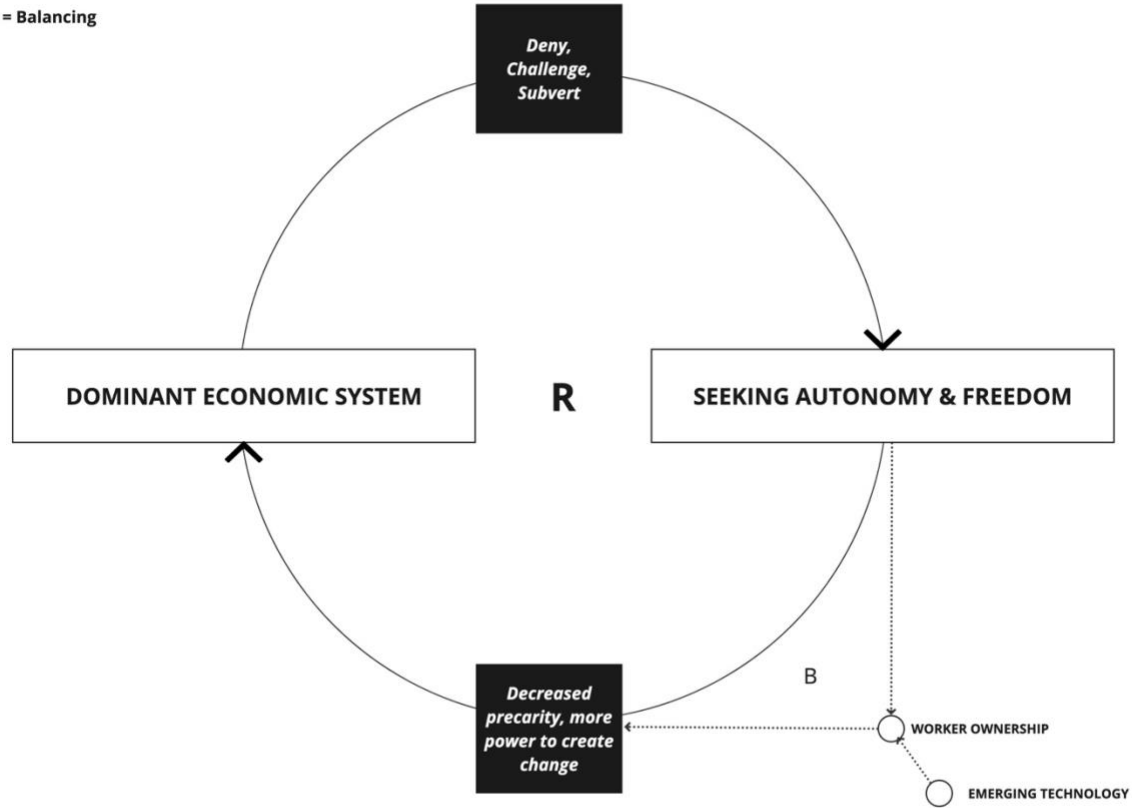


Figure 1 Causal loop diagram of the research hypothesis

Methods

To support tactical experimentation, this research utilizes the DVF framework developed by IDEO, a human-centred design thinking and prioritization approach (Gibbons, 2021). DVF stands for desirable, feasible, and viable, reflecting the key criteria for a successful solution (McGaw & Paradis, 2007). By using the DVF framework as a guide for filtering and prioritizing potential solutions, workers can experiment with new models for an increased stake in the value they produce, and the technology configurations needed to implement them.

Data Elicitation Methods

To synthesize data for this research, both primary and secondary methods are utilized, including an ecosystem scan, solution scan, surveys, participant co-creation, and expert working sessions (see Figure 2 for detailed research flow).

Secondary Research Methods

The ecosystem scan examines social, technological, and economic factors affecting workers and the labour market more broadly to understand signals and trends impacting both workers and the future of work. The solution scan complements this by targeting in-play solutions that address key challenges and opportunities identified in the ecosystem scan. The broad solution scan is supported by the DVF framework which functions as a prioritization criterion to down-select solutions with the highest odds of success to inspire and guide future worker-led experimentation.

Primary Research Methods

Design research sessions with participants are used to generate key contextual criteria for inclusion in the DVF framework as seen in Figure 12. A participant co-creation session is used to generate desirability inputs and unearths key assumptions. Worker surveys are used to analyze paradigm shifts catalyzed by exposure to future of work scenarios presented in the co-creation session. Expert working sessions/interviews are used to generate viability and feasibility inputs.

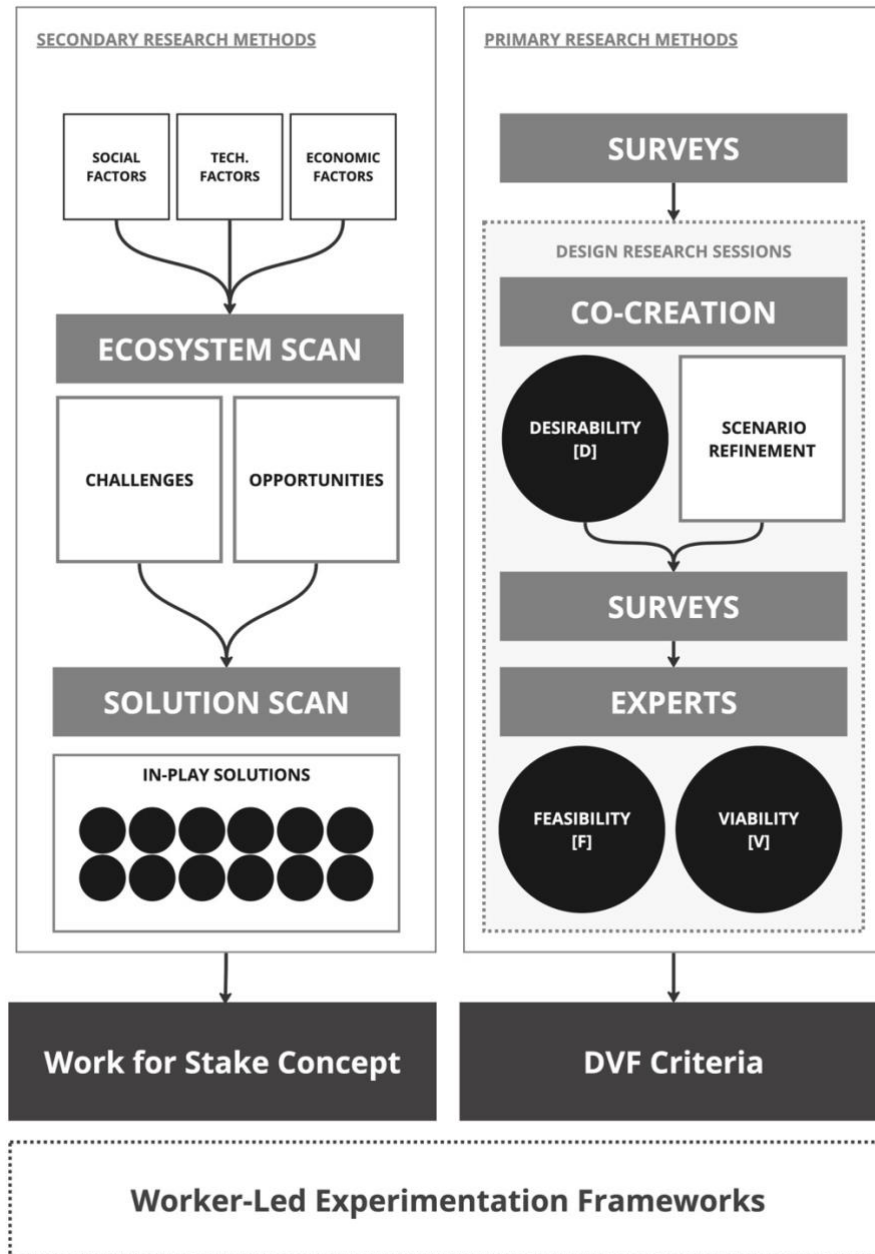


Figure 2 Research Map - Overview of methods and outputs

Contributions

This work uses the above frameworks and methods to fulfill research needs in the ownership, labour, and emerging technology space as identified within the works of leading thinkers in this domain:

1. A need for workers to understand the opportunity of ownership (Marjorie Kelly, Email Interview, April 4, 2021)

2. A need to advance nascent playbooks and best practices on ownership distribution and education geared toward developers and users (Variant, 2022)
3. A need for the identification of innovations and business models made possible by new ownership structures (Schneider, 2018)
4. A need for cooperative and democratic forms of organizing in the economic sphere to "erode the foundations of our current economic system and usher in a new one" (Chen & Chen, 2021)
5. A need to directly address the concentration of capital ownership and capital income to enable broad-based capitalism through partial ownership models (Talks at Google: Joseph Blasi, 2014)
6. A need for compelling visions of change, information about the change, and involvement in the change for successful change management in the workplace (Galbraith, 2018)

Workers must understand the opportunity of ownership, how to act toward it (playbooks, best practices, knowledge, and information) and the most viable models for doing so (both business models and organizing structures and principles). This research contributes pieces of the puzzle by addressing each of these calls for research in the following ways:

- **Contributes a net-new 'future of work' concept** at the intersection of emerging technologies, labour markets, ownership, and innovation to help workers understand the ownership opportunity and shift paradigms around available options and imaginable approaches to work
- **Contributes practices, principles, and tools to advance an ownership playbook** geared toward enabling workers to increase their ability to align and optimize actions/behaviours with/for ownership outcomes and supporting successful experimentation
- **Contributes a map of the transition to the future of work** to support a shift away from the current operating system toward a future of worker ownership

In addition to taking up these calls to action from leaders in the space, this work uniquely optimizes for bottom-up approaches to ownership by prioritizing permissionless (low-no gatekeeper involvement), and realistic (constraint-informed) stake-based solutions with moderate to high potential impact for ownership advancement and attendant benefits of freedom and autonomy. To this end, the work differentiates between bottom-up and top-down incentives and disincentives and anchors to a bottom-up framing throughout. This paper is designed in service of digitally-oriented workers facing the challenges identified by this work and looking for pathways toward change in addition to a secondary audience of foresight and innovation practitioners looking to frame broad-based, stake-enabling experimentation from a worker perspective.

Limitations & Scope

The secondary and expert data analyzed for this research is derived from Northern American sources (Canada and the United States). Primary research conducted with workers in the survey and co-creation session took place with young (under 35) Canadian workers in Greater Toronto only. While findings may be applicable to other jurisdictions, the research does not provide a comprehensive analysis of other regional data sources. The research is also limited by the small scope of the data set: 6 experts were interviewed from across Canada and the US, 10 survey respondents, and 7 workshop participants were included across the research.

The research does not conduct an analysis of all forms of ownership and takes a decidedly worker-centred approach to the research. As such, the findings may be less relevant for employers, and general audiences or those interested in an exhaustive list of ownership beyond those applicable to workers.

This research is also limited by the availability and quality of data on key themes (ownership, labour, innovation, and emerging technologies). Given the dynamism and ever-shifting nature of these thematic areas, some information may be incomplete or outdated despite every effort being made to bring the most applicable and reliable information forward.

Context & Opportunity

The current labour market presents a variety of challenges for workers that threaten their economic and social well-being. This research will explore these challenges and suggest high-leverage areas of opportunity to generate change/impact through ownership-driven innovation. This section of the report will frame barriers and challenges that prevent workers from becoming shareholders in the value their labour creates. It will introduce critical challenge themes, demonstrate how ownership can drive change to shift outcomes in the face of these challenges, build the case that digital ownership is the most interesting possibility space for experimentation, frame a compelling case for change and vision for the future of work, and demonstrate how worker-led innovation is the opportunity to realize this change to help workers reap the material benefits of their work and become key stakeholders in the value their labour creates.

Worker Challenges in the Current Labour Market

This research has identified a range of critical challenges facing workers that can be categorized into four key themes: rising inequality, growing insecurity, shifting composition, and digital intensification.

Theme 1: Rising Inequality

The first theme is rising inequality, which refers to the growing gap between the wealthy and the rest of the population. This theme is evidenced by the following trends:

- **Inadequate Safety Net** - Social assistance programs in all provinces have benefit rates that are lower than the poverty line, low asset limits, and high claw back rates on earned income. These programs prioritize labour force participation at the expense of recipients' health and do not alleviate poverty when combined with work requirement sanctions (Aaron, 2020; Hillel, 2020)
- **Rising Cost of Living** - In 2022, Canada experienced the largest increase in Consumer Price Index (CPI) since 1982, with prices rising in all major components, particularly transportation, food, and shelter. This has made it difficult for almost half of people aged 35 to 44 years to meet their financial needs, and 26 percent of Canadians said they would not be able to cover an unexpected expense of \$500. Interest rates have risen in response to inflation, and personal debt levels in the US have reached record highs. Prices are expected to continue rising faster than wages
- **Growing Wealth Gap** - The income gap in America has been increasing for over three decades, with the top 1 percent making 84 times as much as the bottom 20 percent. CEO pay is increasing while wages remain stagnant, particularly for racialized workers. The Forbes' 400 richest people have more wealth than the poorest 50 percent of Americans combined, highlighting wealth inequality (Corbyn, 2023; Government of Canada, 2023)

- **Negative Wage Growth** - Preliminary data for the first half of 2022 shows a global fall in real monthly wages, estimated at -0.9 percent globally and -1.4 percent excluding China. The erosion of real wages compounds significant wage losses incurred by workers during the COVID-19 crisis. Average wages globally increased by 1.5 percent in 2020 and 1.8 percent in 2021, largely due to job losses among low-paid wage employees ([International Labour Organization, 2022](#))

These trends have resulted in economic insecurity for many workers and made it difficult for them to meet their basic financial needs. Economic inequality has far-reaching implications; it can discourage skills accumulation and social mobility while increasing uncertainty, vulnerability, and insecurity, even decreasing institutional trust and triggering conflicts and violence (United Nations, n.d.).

Theme 2: Growing Insecurity

The second theme is growing insecurity, which refers to a scarcity of stable, well-paying jobs. This tends to leave workers with unpredictable schedules and lower wages. While insecurity can be viewed as a symptom of economic inequality, it originates from distinct causal trends:

- **Increasing Informalization** - Over the last 3 decades, employers have used temporary economic downturns to restructure work towards part-time and informal contracts, offloading costs onto outsourced heavily outsourced, just-in-time supply chains and contract workers. Even in economic recovery, involuntary part-time work remains at recessionary levels with part-time involuntarily work sitting 44.6 percent higher than it was in 2007 (Sareeta, 2020b)
- **Borderless Talent Sourcing** - A Gartner survey found that 58 percent of organizations report having at least some technology talent working in a fully remote borderless arrangement, and this number has doubled in the past three years. The trend of borderless hiring is expected to continue to expand, with 27 percent of leaders currently exploring hiring borderless tech employees ([Berg & Rani, 2018](#))

This theme is creating structural shifts across the employment landscape and requires a rethinking of how workers access essential benefits of employment including security and health coverage (Sareeta, 2020b).

Theme 3: Shifting Composition

The third theme is shifting composition, which refers to the changing profile of employers and employees as evidenced by the following trends:

- **Declining SMB (small and medium-sized business) Outlook** – Small and medium-sized businesses (SMBs), which make up 98.1 percent of all employer businesses in Canada, are experiencing a decline in outlook, leading to fewer total employers and job losses (I. Government of Canada, 2021)
- **Older on Average Population** - A larger proportion of the population aging and deferring retirement is increasing care-based expenses like child care (e.g., grandparents are unavailable to care for the children of working-age adults as they are still working themselves), and reducing the number of job vacancies ([Hamilton, 2022](#); [van't Noordende, 2023](#))

The profile of employers and employees is shifting within this new playing field. As a result, job competitiveness is likely to increase while potential employment options consolidate, making it harder for job seekers to find work, and the burden of care no longer shouldered by older populations will increase the cost of care faced by family-aged workers.

Theme 4: Digital Intensification

The fourth theme is digital intensification, which refers to the acceleration of a digitally driven workforce and the resultant working environment created by them.

- **Widening Skills Gap** – 69 percent of HR professionals believe their organization has a skills gap, and the percentage has increased from 55 percent in 2021. Both hard and soft skills are seen as having a short shelf life, amid digital acceleration posing a challenge for workers and enterprises to remain up to date (Stokes, 2023; van't Noordende & Scarpetta, 2022)
- **Automation Expansion** - AI tools are being used to automate tasks previously sold on freelance marketplaces such as Fiverr, including video, image, music, copywriting, and summarization. AI is also being used for larger-scale applications, such as Tesla's digital self-management for factory positions, which eliminates the need for managers to coach workers on quality assurance and other high-level activities (Brown, n.d.; Wang, 2022). Even if near-term rapid automation is unlikely, technological change will have other effects on workers, enabling employers to segment work into discrete, outsourceable parts (Sareeta, 2020a)
- **Surveillance Saturation** - Automated surveillance helps companies maintain leaner workforces during downturns. Low-wage labour is often used to train production-process robotic systems, and slack is continually optimized out of the system reducing the capacity for workers to rest or recover (Sareeta, 2020a)
- **Tech-Driven Rapid Change** - The rate of technologically driven change is increasing. With advancements in technology and the development of new tools, automation and artificial intelligence are being implemented at larger scales and with grander use cases (Qureshi, 2020)

The aggregate effect of technology in the workforce is typically one of intensified worker effort levels (working harder and faster), a decrease in the number of workers needed, and the emerging 'forever on call' scenario wherein workers have much less consistent and fewer hours while shouldering the burden of shifting consumer demand (Sareeta, 2020a).

Ownership as an Antidote

Ownership can be a key contributor to solving the challenges faced by workers in the current economic landscape. Economic power rests on a foundation of ownership. The right to own, and control wealth lies in capital markets, the site where gains are extracted. The dominant model of today is the corporation which centralizes economic power and prosperity and provides outsized rewards to the already successful. Sharing

ownership widely can decentralize this model and lead to a more equitable work environment in addition to providing important benefits to existing organizations and employers.

An ownership stake in the enterprise for workers would enable them to have a real say in the governance of their workplace and enable them to reap the full benefits of their labour in both the long and short-term (Sareeta, 2020b). By distributing ownership more widely, projects and enterprises can “give those who work for a living a more equitable work environment and a greater voice” (Chen & Chen, 2021). Ownership can lead to aligned incentives, higher productivity, growth, long-term enterprise survival, higher wages, higher net worth, and lower rates of job precarity during downturns for workers (Dudley & Rouen, 2021). For organizations, employee ownership has been proven to lead to outperformance on centrally owned companies in the areas of job retention, pay, benefits, and workplace health safety (The Employee Ownership Foundation, 2020). Ownership must become an explicit economic strategy for workers to slow a vicious cycle of compounding precarity accelerated by technology (McCormick, 2022).

To achieve ownership, workers must be able to evaluate whether they are owners or not within a given arrangement. There are four “classical” rights associated with ownership: the right to possess; the right to use and enjoy as one pleases; the right to dispose of; and the right to get value from whatever is owned (Jurcys, 2021). This research builds on ‘the right to derive value,’ using 4 key factors to evaluate whether a return given to a worker in exchange for their labour or value created by them is in fact ownership:

- **Transferability:** the ability to gain, transfer, and lose ownership, or to sell to liquefy assets
- **Inclusion in Governance:** the ability to determine the direction of the enterprise or project either autocratically or democratically
- **Economic benefits:** a direct or indirect share in the profits and value generated by an enterprise or labour product
- **Legal recognition:** legislative power over the property (Wikipedia, n.d.)

Ownership entails both benefits and risks. Risks include liabilities incurred including debts, maintenance and upkeep, and theft of damage. Assets may also depreciate, become obsolete, or fail to return their speculative value. Precisely because ownership does not typically provide fixed returns, returns can be variable in both positive and negative ways. While asset ownership is a leading indicator of wealth and economic security there are no guarantees (Adkins & Konings, 2019). At the same time, capital ownership is becoming increasingly centralized as inequality continues to grow supporting the theory that returns to capital are exponentially outpacing returns to labour, a position supported by many thinkers in the ownership space and highlighting the importance of an ownership strategy for workers to counteract its increasing centralization as described by Figure 3.

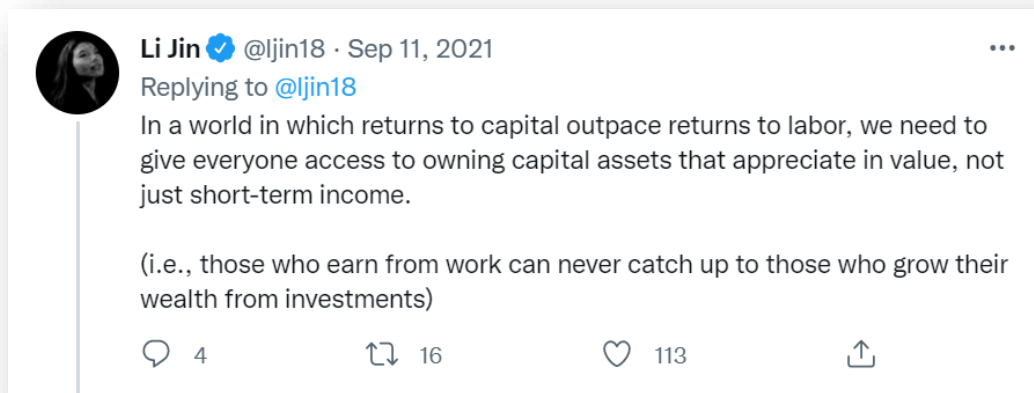


Figure 3 Li Jin Twitter thread on capital ownership (Li Jin [@ljin18], 2021)

Emerging Technology as a Compounding Force

Rather than decentralizing ownership among value-creating participants, the growth of technology has fueled centralized ownership by corporations. Corporate investment in technology reached an unprecedented rate during Covid-19, increasing by \$15 Billion per week (Boesler, 2022; Gartner, 2021). While investment strategies have shifted from buying tech to building and composing technology, this trend is expected to continue with a 5.5 percent increase expected in 2023 despite economic turbulence (Gartner, 2023). This investment correlates with record-breaking profits driven by productivity, automation, and other software-driven transformation initiatives (Evers-Hillstrom, 2023; Gartner, 2023).

Unfortunately, automating and scaling structures optimized for inequality is likely to intensify existing challenges faced by workers rather than improve outcomes. Traditional employment structures have weakened, and new norms set by gig work companies are failing to protect workers. Furthermore, the focus by unions and governments on raises in fixed wages and benefits as a primary strategy prevents workers from keeping pace with an evolving market. As technologies enable enterprises to do more with less, employers drive toward leaner, more efficient workforces while positioning headcount reductions and the intensification of working conditions as being in workers' interests. In a recent press release from Facebook, it was stated that "people will be more productive, and their work will be more fun and fulfilling" (Heath, 2023). This trend poses a threat to workers as the vision of an optimally efficient future with few or no employees takes hold of corporate imaginations.

However, as the next generation of the internet transforms users into owners and powerful technological and financial tools become increasingly accessible (McCormick, 2021) workers may finally have the potential to reverse these unfavourable trends. There is now an emerging opportunity to use technology to compound decentralized ownership. The leading possibility space for experimentation with this has been termed the 'ownership economy.'

The ownership economy is a new paradigm that seeks to enable secure and decentralized ownership of digital assets through blockchain, smart contracts, and digital signatures (Singh, 2023; Variant, 2022). This rapidly

growing model posits to redistribute wealth and create positive social change through participatory earning models. With the advent of blockchain technology, tools like Metamask (the leading self-custodial wallet), Ethereum (a decentralized open-source blockchain), and Smart Contracts (automatically executed blockchain contracts) have become more accessible, enabling people to transact, invest, create, build, play, learn, communicate, and socialize using digital tools (Variant, 2022) (see Figure 4 for a sense of the present day scale of these ownership economy tools).



Figure 4 Leading Ownership Economy technologies, illustrating the scale of the opportunity space (Variant, 2022).

The Ownership Economy presents an opportunity to create positive social change by decentralizing ownership and distributing wealth to users. By unlocking new potentialities for ownership, censorship resistance, ways of organizing, online identity, and payments, it provides an avenue for workers to generate wealth on their own terms with a decreasing amount of technical skill (ethereum.org, 2023, McCormick, 2021). “This marks a fundamental shift in who can innovate and create value from technology,” which enables meaningful bottom-up innovation (Kelly et al., 2021).

The Ownership Economy offers the following key value propositions: jumpstarting growth through user ownership, richer ecosystems of projects and contributors through user ownership, boosting user loyalty with new token distribution designs, and enabling earlier-stage ownership for participants in value creation (Variant, 2022). It creates an experimentation space without intermediaries for creating new organizations, projects, and enterprises by embracing the following principles:

- **Decentralization** (instead of large swathes of the internet controlled and owned by centralized entities, ownership gets distributed amongst its builders and users)
- **Permissionless-ness** (everyone has equal access to participate in Web3, and no one gets excluded)

- **Native payments** (it uses cryptocurrency for spending and sending money online instead of relying on the outdated infrastructure of banks and payment processors)
- **Trustless-ness** (it operates using incentives and economic mechanisms instead of relying on trusted third parties)

(ethereum.org, 2023).

This trend of disruptive, tech-driven ownership is set to continue, with experts predicting the emergence of multiple trillion-dollar publicly traded entities run by just one founder within the next two decades (see Figure 5) (McCormick, 2021). This points to the scale and scope of opportunities for workers in an emerging labour market.

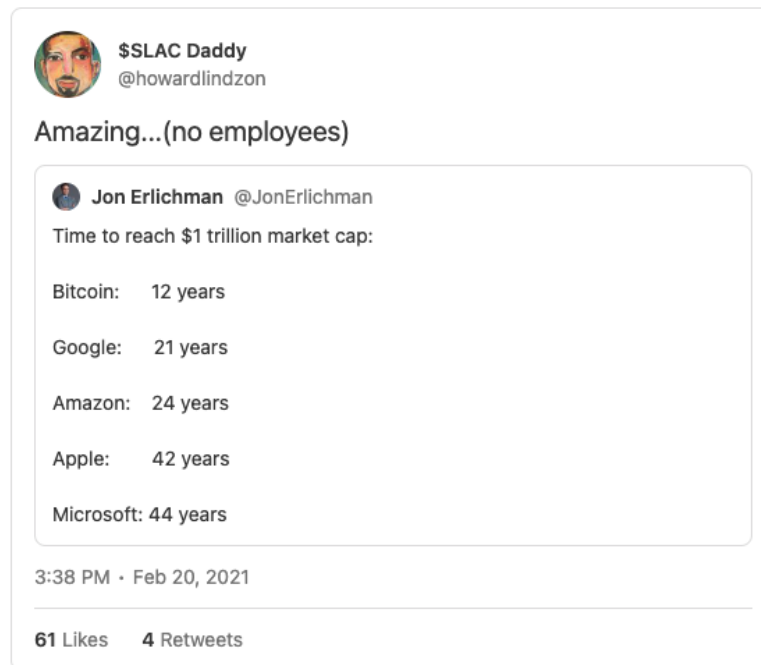


Figure 5 Tweet from @howardlindzon showing the time to reach a \$1 trillion market cap, demonstrating the declining number of employees required to realize massive value and returns and to do so faster than their larger counterparts (McCormick, 2021)

As our world continues to move towards digital-first models and behaviours, there is an urgent need to experiment with ownership-based technologies early on (Wang, 2017; Lomas, 2023; Moody, 2021). This imperative is especially pressing given the compounding advantage of centralized ownership and early adoption of technology (Doyle, 2020). This research seeks to prove that the combination of technology and ownership can improve outcomes for everyday workers. With fewer resources than ever before, workers may be able to successfully challenge established ways of working by testing and prototyping new models for work to deliver enhanced experiences, and more profitable labour relations, beyond fixed wages and benefits (Christensen et

al., 2015, McCormick, 2021). By embracing new technologies and experimenting with ownership-based models, workers increase their likelihood of playing a shaping role in the future of work and seizing the opportunities that lie ahead.

Reimagining the Future of Work

If workers desire "better" futures, they need to create transformative structures that make those futures possible (Chen & Chen, 2021). The future of work imaginary articulated in this research provides a plausible, normative value orientation to help orient deliberation around work-related decision-making (Bazzani, 2023) and inspire an alternative, hopeful vision of the future. Work for Stake (WfS) is a concept that sits under a broad umbrella of future of work imaginaries by presenting a vision or mental model of one of many possible, "better" futures for workers, helping them to take the necessary action to move toward a desirable outcome.

This future where work is primarily driven by ownership and where value creators derive voice and economic benefit from their labour is an 'imaginary.' It is a vision of a future that we can strive towards, but it does not yet exist in the present reality. "Social imaginaries are systems of practices, orientations, and ideas that make group activities coherent;" They often contain rules and expectations, goals, and methods to achieve them (Shaw & Cardoso, 2022). Imaginaries can serve multiple functions, including helping individuals cope with an uncertain or plausibly negative future by defining alternative actions (Bazzani, 2023).

The intention of positioning WfS as an imaginary is to generate discussion and explore possibilities that lead to ownership outcomes for workers rather than a set of possible outcomes or a range of possible futures generated by drivers. This multiple, driver-based envisioning of futures are typically referred to as scenarios. There are multiple WfS scenarios but WfS is an outcome-focused imaginary rather than a scenario itself.

To build a plausible, desirable future of work imaginary, this research uses the levers for change and HMW questions framed in Table 2 as a starting place, building an understanding of existing solutions being used to answer these questions and push these levers in the right direction in order to drive positive change in the present with the goal of realizing a WfS future for workers at the intersection of ownership and emergent enabling technologies (see **Error! Reference source not found.** for the full solution scan).

WfS is built on the following key components derived from market trends:

- **Data-enabled micro-financialization** - Digitalization renders granular actions into data points. Web3 protocols allow data to be packaged into tradeable instruments while preserving access rights. Workers may find scalable income generators and access to reliable work through such tools. Such work could increase agency and control while also generating valuable future skills in digital asset creation and monetization (Antaraxia, 2022)
- **Low-barrier composable tools and platforms** – Open-source tools are the foundation of composability, the ability to mix and match software components. Workers can create scalable income generators and whole businesses that previously would have required many experts, simply, quickly, and with a staff of one, even with low or no code (Dixon, 2021; Xie, 2021)

- **Self-organizing peer-to-peer & ecosystem connector** – Enhancing competitive value and security can be achieved through self-organization toward the end of sharing. Coevolving capabilities around a shared set of technologies, knowledge, or skills, and working cooperatively and competitively can enable the development of new innovations and enterprises. Connecting nodes without the need for a central authority or governing bodies mitigates outsourcing risks (Anderson & Rainie, 2022; Forbes Expert Panel, 2021b; Schneider, 2018; Taddeo, 2016)
- **Personal value awareness & amplification** - Reflection and self-awareness are essential to building a clear value proposition that makes workers relevant to the projects and goals that others seek to realize. This principle generates security through positive perception and virtuous cycles of value creation that act as an attractor for opportunity (Edwards, 2020; Glassdoor Team, 2021; Quast, 2016; Staats, 2021)
- **Continuous learning processes and environments** - Intensifying skill requirements and rapid technological change require the implementation of continuous learning processes and environments essential to self-generating opportunities and informing adaptive strategies with the additional benefit of generating expertise (Forbes Expert Panel, 2021; Gallo, 2012; Zaaijer, 2020)
- **Diversification** - Compensating for negative wage growth and growing financial precarity necessitates a portfolio approach to employment (Coursera, 2023; Keenan, 2022; Matthews, 2021; Side Hustle Stack, n.d.)

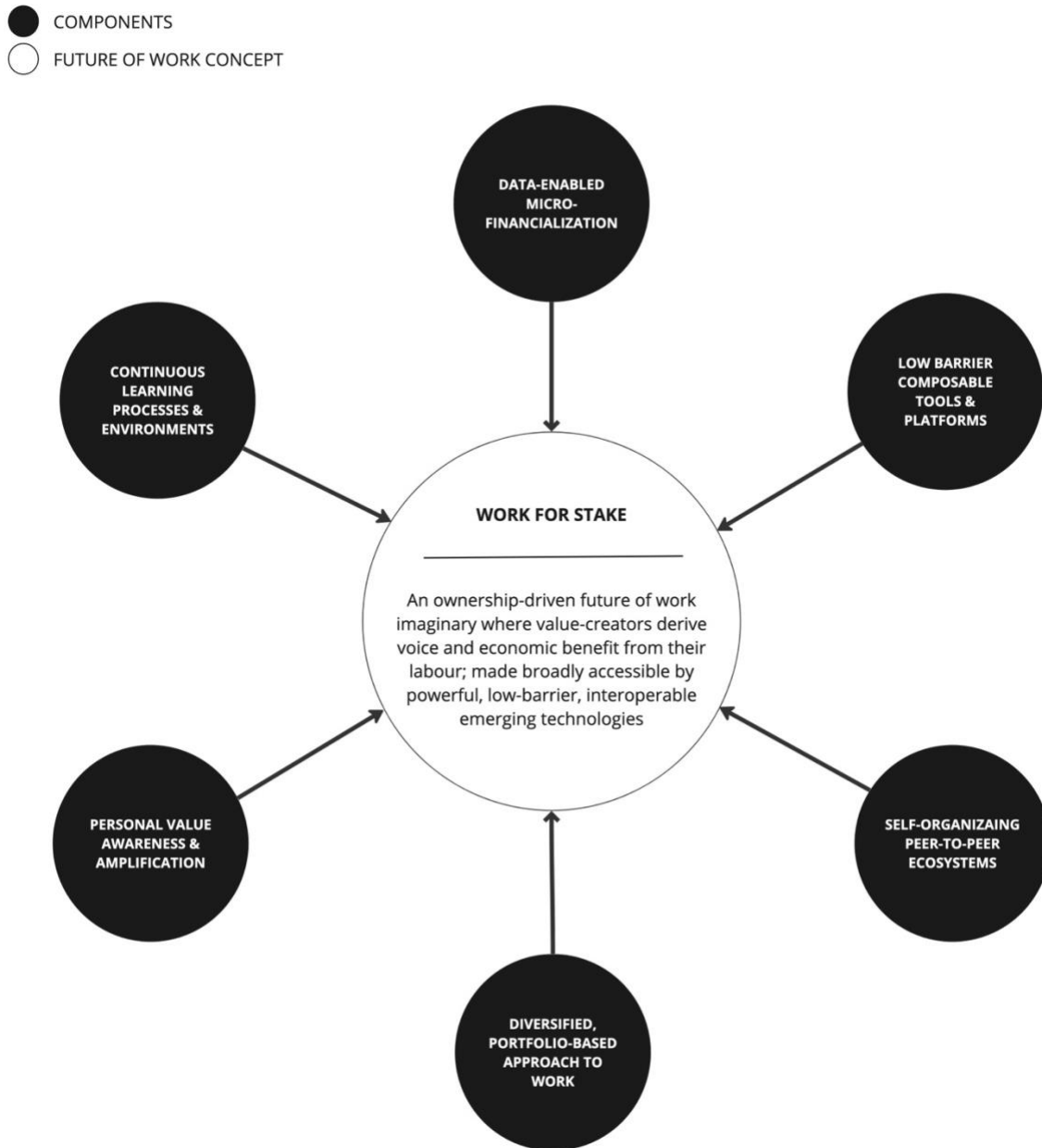


Figure 6 Work for Stake Concept and 6 Key Components

The combination of these components can generate many possible worlds and future scenarios that fit within the broader WfS concept. This research has generated one example as a starting point for further contemplation:

In a future where ownership is integrated throughout all levels of society, workers are implementing the 6 components of WfS in various ways to increase their governance and an economic stake through their work. The principle of data-enabled micro-financialization allows workers to access reliable work and create valuable

digital assets through web3 protocols, while low-barrier composable tools and platforms enable workers to create scalable income generators and whole businesses with ease. Self-organizing peer-to-peer networks and ecosystem connectors enhance competitiveness and security, and personal value awareness and amplification generate positive perceptions and virtuous cycles of value creation. Continuous learning processes and environments help workers adapt to rapid technological change and intensifying skill requirements, and diversification through a portfolio approach to employment mitigates financial precarity.

In this world, workers have complete ownership of their crypto usernames and virtual wallets, and they use their crypto phones to manage their keys to currency, passwords, services, and life. They are their own agents of proof, belonging, and authorship, and they build their own networks and identities. Workers use their access to information and resources to sort the signal from the noise and make informed decisions about what to bet big on. They build their own adventures and collaborate with others to achieve impossible goals with the click of a button. With the 6 principles guiding their work, workers are empowered to govern their own economic futures and build a post-corporate, post-nation-state world.

The WfS concept has some net new terminology that helps to frame central ideas including the WfS term itself, work for wage, returns on work, and the return on work continuum. See the glossary in Table 1 for definitions of key terminology.

Table 1 Work For Stake glossary of key terminology

Term	Definition
Work	The performance of work or expenditure of effort, usually in exchange for economic returns. It includes tasks and activities performed by workers that produce tangible and intangible outcomes intended to provide value to a user, including goods, services, knowledge, and intellectual property.
Work for Wage (WfW)	An arrangement in which a worker exchanges time and labor for short-term linear income, including wages, salaries, and any length of contract.
Work for Hire	A work-for-wage arrangement in which the employer, not the employee, is considered the legal author and owner of all work prepared by the employee.
Work for Stake (WfS)	Work for Stake is an imaginary future of work concept, and an ownership-driven arrangement where a worker contributes value to a product in exchange for a stake, providing monetary or other benefits if it succeeds. It emphasizes economic benefit and voice for individual value-creators, made accessible by emerging technologies.
Return on Work (RoW)	Refers to the economic value received in exchange for work, including wages, salaries, and shares.
Return on Work Continuum (RoWC)	Refers to a spectrum of returns on work, ranging from linear returns like wages to full participatory or centralized ownership like a meaningful stake in a company or IP royalties.

The concept of work for stake shares similarities with stakeholder capitalism, the ownership economy, and equity compensation, all of which relate to the distribution of ownership and/or economic benefits. However, WfS is unique in that it emphasizes the idea of contributing value to a product in exchange for a stake in it, which is not necessarily the case in the other three concepts. Additionally, WfS places a strong emphasis on the

importance of voice and economic benefit derived from labour, which may not always be prioritized in the other three concepts.

The ownership economy emphasizes individual ownership and control, often facilitated by technology platforms, while stakeholder capitalism emphasizes the broader social impact of a company and equity compensation refers specifically to the use of stock or stock options as a form of employee compensation. Although each concept involves a degree of shared responsibility and mutual benefit between stakeholders, they differ in their priorities and accessibility.

WfS combines the elements of ownership, economic benefit, and voice for individual value-creators, and is made possible by emerging technologies that reduce barriers to entry and promote interoperability. This ownership-driven future of work has the potential to be accessible to a broader range of people, regardless of their socioeconomic status or qualifications.

Moving forward, this research will build upon this concept of WfS and explore strategies and tactics to support the development of experiments that can validate the research hypothesis. These worker-led innovation experiments will help to make this future of work imaginary real by building toward it in the present.

Framing the Innovation Opportunity

To integrate ownership-based models into their approach to work-related decision-making, workers might use innovation methodologies to test and learn and build an understanding of what new models, ideas, and tools might work in their context. A reliable process for real-world experimentation is necessary to determine which novel solution is worth pursuing and how it can be improved later (Utleý & Klebahn, 2022). Experimentation is the core of innovation and innovators can use data from experiments to form new hypotheses, resulting in better products, faster operations, and increased value (Bixby, 2021). To this end, creating a volume of low-fidelity ideas and testing them rapidly with real people is the most effective, proven approach (Utleý & Klebahn, 2022). Innovation processes and methods can help workers narrow their options in pursuit of security by providing tools and information to move beyond the known and familiar status quo when it no longer suffices (Utleý & Klebahn, 2022).

This section aims to set the frame and establish the processes, vision, and criteria for successful worker-led experimentation using innovation methods. To do this, the worker-specific implications of the broader labour market challenges (rising inequality, growing insecurity, shifting composition, and digital intensification) are articulated and converted into questions that can act as a starting point for solution generation. The implications and questions are then grouped to identify areas where targeted innovation is most likely to create broad and impactful changes in the areas that support this inquiry.

Challenge Implications for Workers

To set the frame for innovation, it is important to build an understanding of how to convert the challenges facing workers today into opportunities for innovation within the constraints inherent in the four challenge themes outlined above (rising inequality, growing insecurity, shifting composition, and digital intensification). These challenges have implications for workers and manifest as constraints within which they find themselves and that might limit their ability to take certain actions.

The challenge themes have the following implications for workers:

- **Growing Financial Precarity** - With the growing privatization of basic resources, the accessibility of these resources is reduced, which increases the vulnerability of workers. This can lead to involuntary relocation, delayed purchases, lifestyle changes, and increasing reliance on social support. Furthermore, the growing wealth gap exacerbates the already challenging financial conditions for workers, particularly racialized workers
- **Intensifying Skill Requirements** - To stay competitive in the workforce, individuals and organizations must upskill faster, especially in hard and technical skills. Organizations are increasingly open to alternate credentials, like work experience and digital badges, which can offer new opportunities to create value if leveraged effectively. However, there is a risk for workers whose employers are not investing in their continued reskilling to fall further behind those who are being invested in
- **Negative Wage Growth** - Wages are falling behind the cost of living, leaving workers in increasingly financially precarious scenarios. This can be particularly challenging for low-wage workers and social assistance recipients
- **Rapid Technological Change** - While rapid automation may not be likely in the near term, technological change will have other effects on workers, enabling employers to segment work into discrete, outsourceable parts, which can create a 'forever on call' scenario for workers. Algorithmic management and logistics software may also intensify worker effort levels, decrease the number of workers needed, and create a precarious position for workers
- **Mental Health and Job Insecurity** - Job insecurity can cause mental health issues and decreased motivation, which can be exacerbated by the uncertain state of employee wellness priorities. The normalization of layoffs as a business strategy and the use of fear as a primary management strategy creates a deeply precarious position for workers
- **Rising Barriers to Employment Access** - Consolidation of companies may create monopolistic effects, making it challenging for individuals early in their careers and less specialized to enter the job market. Small businesses make up a significant portion of employers and job loss across these employers will lead to fewer total employers and job loss

This framing provides a worker-centric interpretation of broader labour market shifts that helps to better understand where change is needed and what change or solutions might have the most impact. It also makes clearer the constraints within which solutions must be realized:

- **Time** – More time must be spent on monetizable activities to keep pace with the rising cost of living. workers don't have time to spare for care, leisure, learning, or other priorities. Given this, solutions

must deliver short-term wins and not take a large amount of time to implement

- **Capital** – Lower wages and barriers to employment access mean workers don't have money to spend on non-essentials or to invest in high-ticket, up-front expenses even those that may earn dividends. Given this, solutions should low-no cost to workers
- **Cognitive Overwhelm** - Keeping up with rapid change, and complexity amidst increasing fear and precarity within the labour market suggests that workers are likely to be at a lower capacity to process new information and make sense of complexity. Given this, solutions must be simple, easy to explain, and compelling

Thought Starters for Solution Generation

Each of the above implications is articulated as a question to act as a thought starter for solution generation. The questions are posed using 'how might we' (HMW) as a starting point to help to generate "creative solutions while keeping teams focused on the right problems to solve" (Rosala, 2021). This is a common innovation approach used to frame the challenge and enable creative solutions.

- *How might we increase skill-based competitiveness for workers continuously?*
- *How might we harness new technologies to increase worker value and agency?*
- *How might we find/create reliable income-generating opportunities beyond wages?*
- *How might we increase financial security for those earning wages/salaries?*
- *How might we increase access to sustainable and meaningful work?*
- *How might we increase job security and stability for workers?*

Levers for Change

The thematic clusters created by removing overlap between the set of HMW questions generated some broad solution categories (see Table 2 for the mapping process overview). These represent levers for change, a term from Donella Meadows referring to places in a complex system where "a small shift in one thing can produce big changes in everything" (Ehrlichman, 2021; Meadows, 1999). This research has identified three such levers: access to decent and secure work, making a sustainable living, and enhancing worker value and competitiveness.

Table 2 Generating Levers for Change: Challenge implications for workers > thought starters for solutions > levers for change

Implications for Workers	How Might We... (solution scan thought starters)	Levers for Change
Changing Requirements	...increase skill-based competitiveness for workers continuously?	Enhancing Worker Value & Competitiveness

Intensifying Expectations	... harness new technologies to increase worker value and agency?	Enhancing Worker Value & Competitiveness
Job Insecurity	... find/create reliable income generating opportunities beyond wages?	Making a Sustainable Living
Rising Precarity	...increase financial security for those earning wages/salaries?	Making a Sustainable Living
Declining Wellbeing	... increase access to sustainable and meaningful work?	Access to Decent & Secure Work
Eroding Rights	...increase job security and stability for workers?	Access to Decent & Secure Work

Access to decent and secure work is about increasing job security and access to decent work, which will improve worker well-being. Making a sustainable living involves finding new pathways forward for wage and salary earners to increase their financial security and find reliable, scalable income generators. Enhancing worker value and competitiveness means workers must continuously increase skill-based competitiveness and harness new technologies to increase their value and agency, turning the tables on technology to make it work for them rather than decreasing their labour market share. These levers fall into the ‘system structure’ category of levers for change (see Figure 7 for the full set of lever types). Change through this lever happens as a result of new structures and behaviours, self-organization, and new system goals, rules, and agreements (Meadows, 2019). However, when combined with the WfS concept, the mental model lever around mindset and paradigm shift also comes into play providing another means by which to generate a shift from the status quo.

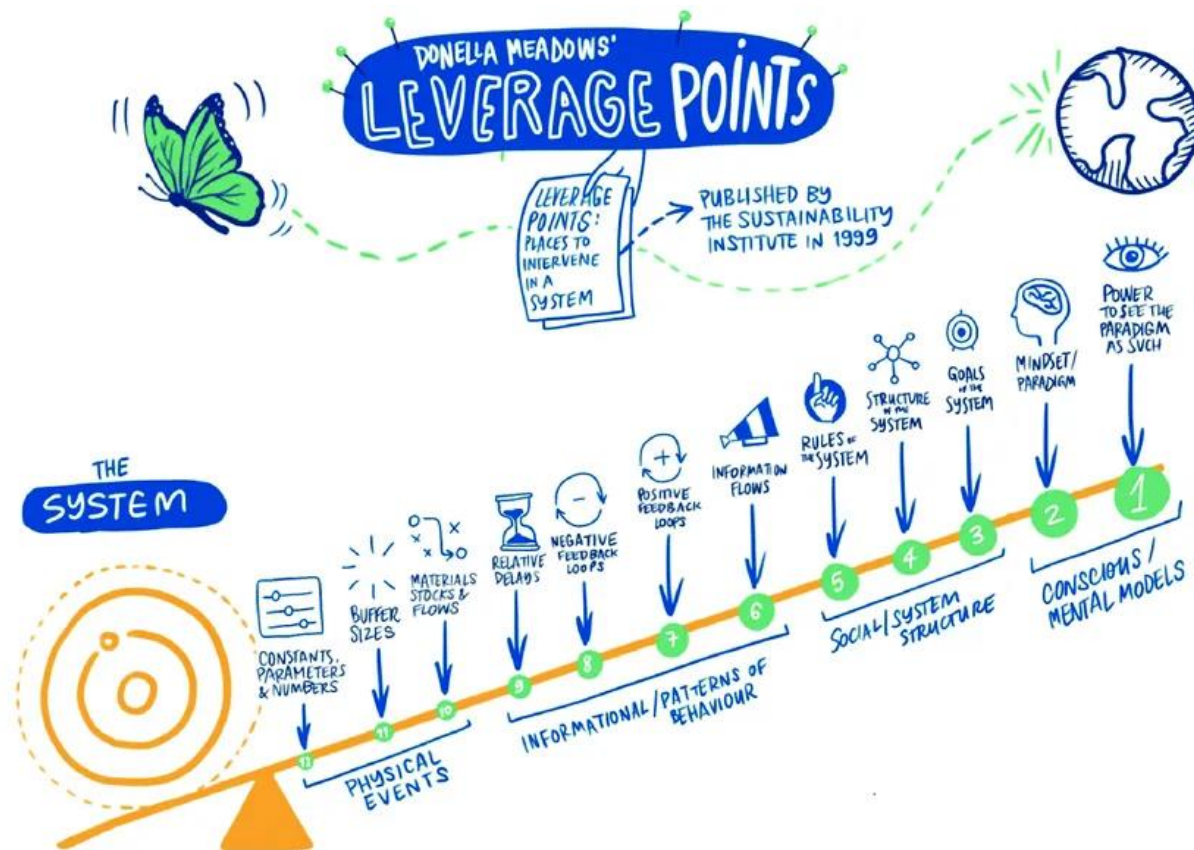


Figure 7 Visualization of leverage points from Donella Meadows's similarly titled paper (Ehrlichman, 2021)

If workers and their allies can shift these levers in the right direction, this research hypothesizes that they are likely to mitigate some of the negative implications of the labour market challenges outlined here and drive disruptive worker-led innovation. Disruptive innovation refers to creating novel but modest offerings and gradually gaining traction to challenge labour market norms at large (Christensen et al., 2015).

A Portfolio-Based Approach to Working for Stake

Disruptive worker-led innovation is not the only sort of innovation with value and relevance for workers. While it has the highest potential for reward it is also the highest risk sort of innovation due to its uncertainty and newness (see Figure 9 for detail on risk and innovation portfolio categories). This work uses the innovation ambition matrix (IAM) to help workers align their innovation ideation and experimentation to their risk profile or appetite. The IAM is a framework devised to consider the novelty of a company's offerings and customer markets as a matter of degree. The matrix consists of three levels of ambition overlaid on a grid. At the lower left, there are core innovation initiatives that focus on making incremental changes to existing products and entering new markets. These initiatives leverage the company's existing assets and capabilities. At the opposite corner, there are transformational initiatives that aim to create new offers or even entirely new businesses to serve new markets and customer needs. These initiatives require the company to tap into unfamiliar assets and capabilities. In the middle are adjacent innovations that leverage the company's existing capabilities and apply

them to new spaces or customer segments. These initiatives require fresh insights into customer needs, market trends, and technology (Nagji & Tuff, 2012). By using the Innovation Ambition Matrix, companies can better understand their innovation landscape, make informed decisions about resource allocation, and align their innovation strategy with their overall business goals.

As a general heuristic, data has shown that leaders who "allocated about 70% of their innovation activity to core initiatives, 20% to adjacent ones, and 10% to transformational ones outperformed their peers," however returns follow the inverse ratio (see Figure 8 for details). Portfolio generation is addressed later in the paper, but the takeaway is that a diversified innovation portfolio, one which executes "at all three levels of ambition," is critical to long-term success (Nagji & Tuff, 2012).

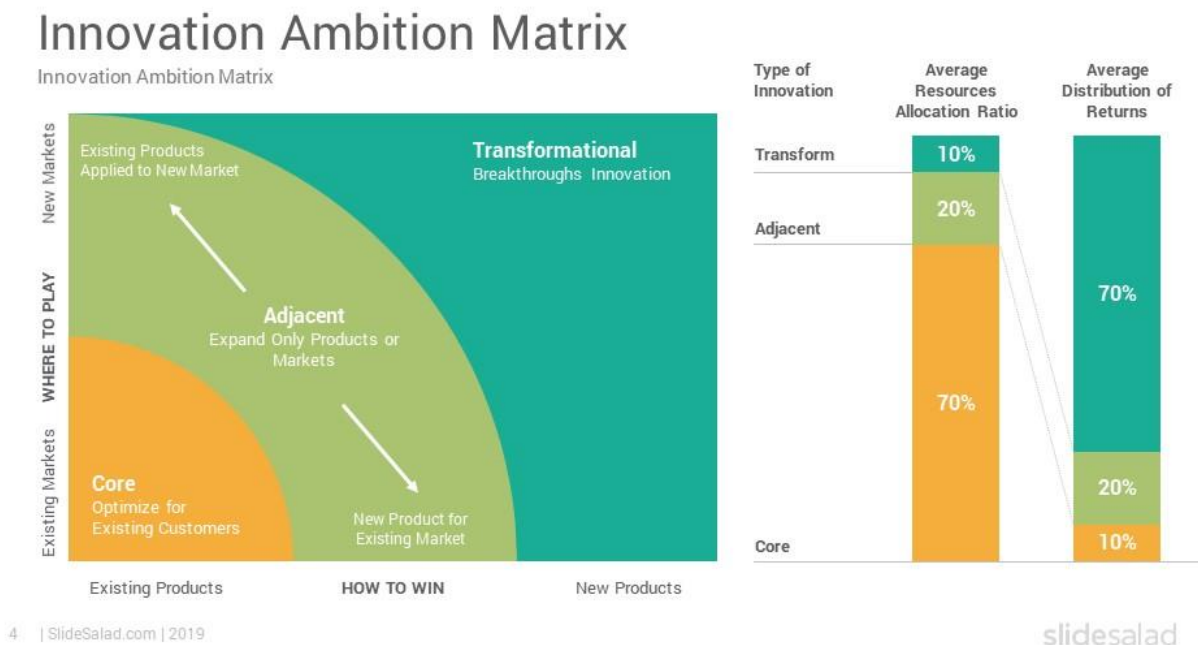
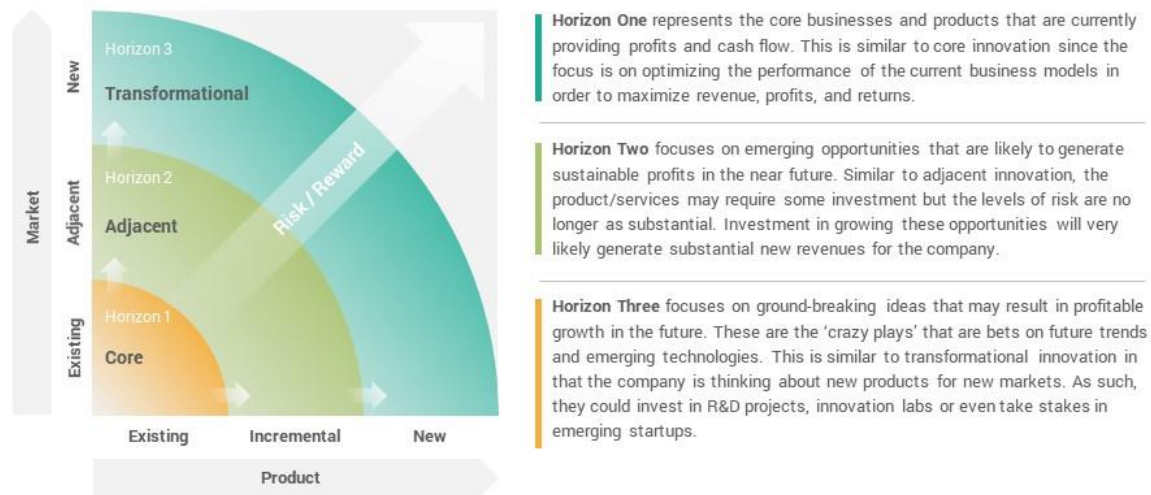


Figure 8 Innovation Ambition Matrix overview, portfolio, and return heuristics (SlideSalad, n.d.)

Innovation Ambition Matrix

Innovation Ambition Matrix



8 | SlideSalad.com | 2019

slidesalad

Figure 9 Innovation Ambition Matrix risk horizons (SlideSalad, n.d.)

This tool has been adapted for use by workers to help them de-risk the transition toward ownership and enable incremental portfolio-based shifts toward an alternative future of work, shown in Figure 10. The adapted matrix focuses both on the spectrum from fixed wage models to ownership models and returns on work, and the degree of use of ownership enabling emerging technologies. There are 4 innovation nodes as opposed to 3:

- **Status Quo** - Fixed Wage, Work for Hire, use of established technologies
- **Incremental Innovation** - No to low ownership, use of established technologies
- **Transitional Innovation** - Partial or employee ownership, may or may not use emerging technologies
- **Disruptive innovation** - Full or partial ownership, leveraging emerging technologies to enable digital ownership

The matrix also frames the future horizon of work where the WfS concept fits in; at the intersection of ownership-driven arrangements where a worker contributes value to a product in exchange for a stake and is enabled by emerging interoperable and composable digital technologies and tools.

- DISRUPTIVE INNOVATION
- TRANSITIONAL INNOVATION
- INCREMENTAL INNOVATION
- STATUS QUO

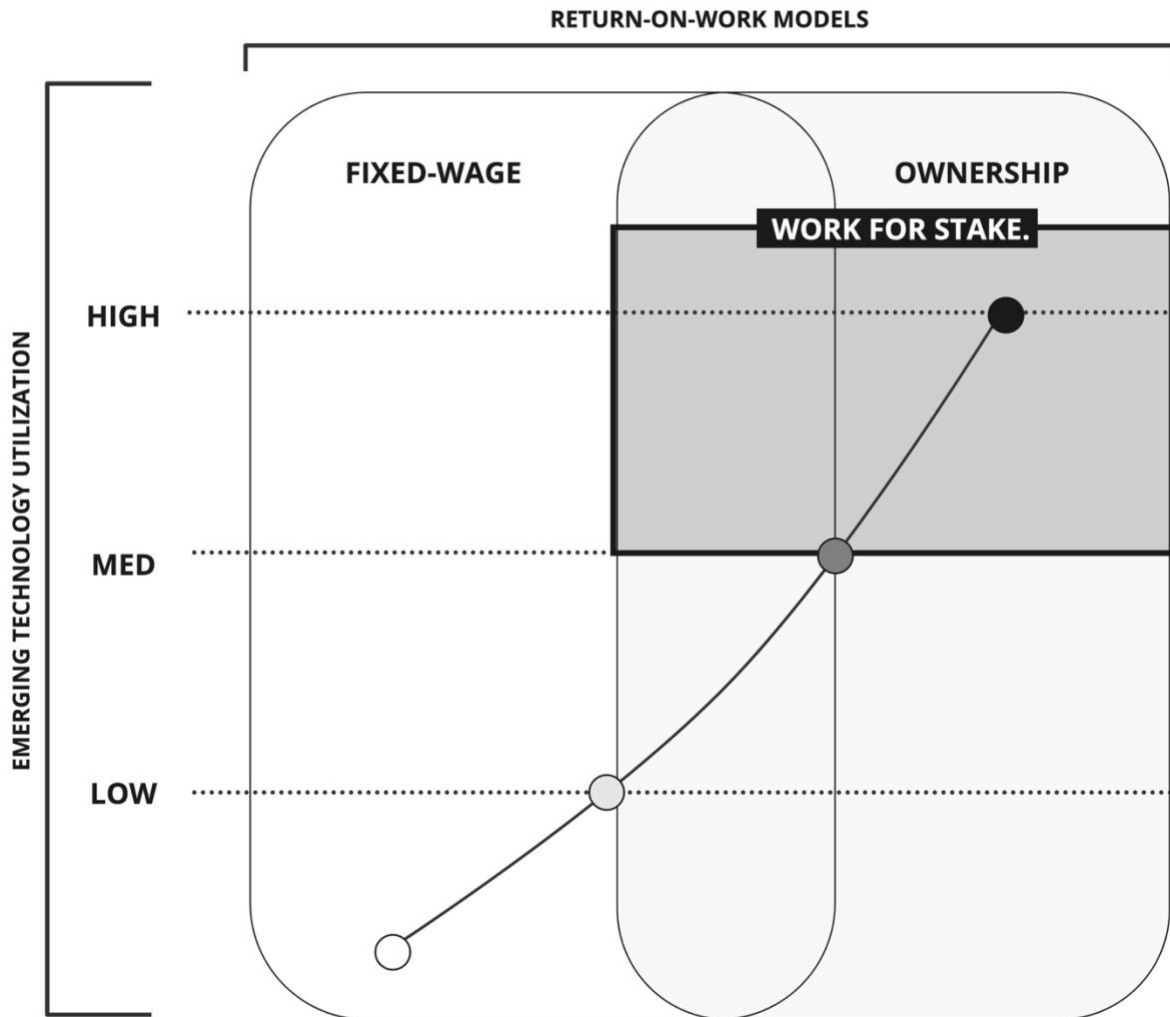


Figure 10 A WfS specific adaptation of the innovation ambition matrix showing degree of new models and degree of emerging technologies used to visualize the level of innovation and risk

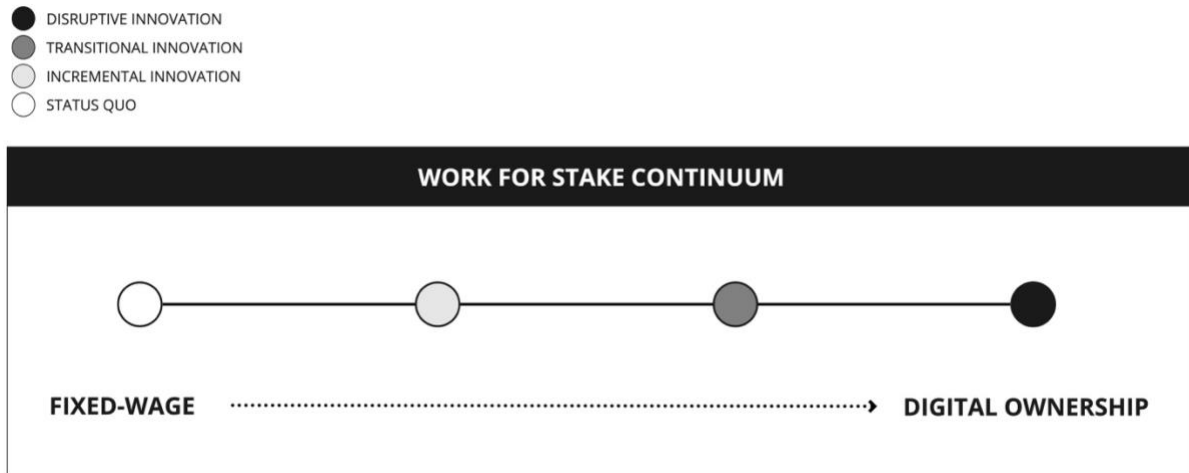


Figure 11 The Work for Stake Continuum, a simplification of the Work for Stake Portfolio Matrix

A simplified continuum version of the matrix has also been created for enhanced usability by non-innovation or strategy professionals. The continuum version functions as a simplified discussion tool around innovation, labour relations, and ownership and is used in participatory session with workers to answer questions about desirability criteria and risk profiles.

Methods

To support and enable successful worker-led experimentation and innovation, this research uses the DVF framework to structure the work and aggregate many data inputs in a manner that is clear, usable, and easy to understand. DVF stands for desirable from a human point of view [D], technological feasibility [F], and economic viability [V] (*IDEO U, n.d.*). The terms are defined as follows:

- “Desirability: What makes sense to people and for people?”
- Feasibility: What is technically possible within the foreseeable future?
- Viability: What is likely to become part of a sustainable business model?”

(*IDEO U, n.d.*)

The framework was developed by IDEO as a human-centred design and prioritization approach (Gibbons, 2021). Each of the three components represents one of the key criteria for a successful solution (McGaw & Paradis, 2007). The framework is often used in design thinking and innovation processes that seek to transform the way products, services, processes, and organizations are developed by anchoring to human needs, and taking a generative approach to ideation followed by rapid prototyping, testing, and iteration (*IDEO U, n.d.*). By using the DVF framework as a guide for filtering and prioritizing potential solutions, workers can experiment with new models for an increased stake in the value they produce, and the technology configurations needed to implement them.

In the context of this work, desirability is focused on what workers need to improve economic and social outcomes, feasibility anchors to the emerging digital technologies they might use to realize solutions, and viability is linked to the value chains and models that deliver ownership status to workers whether they are employees or independent agents.

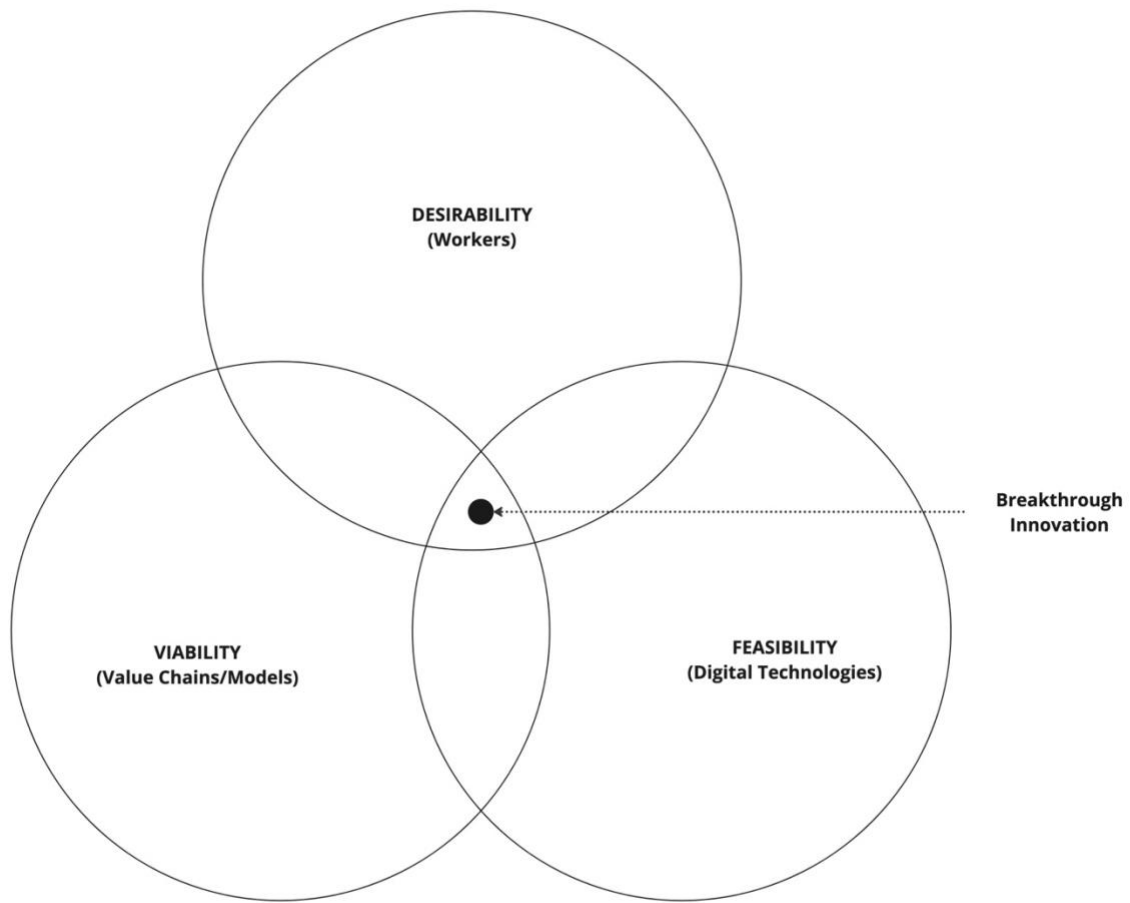


Figure 12 DVF Framework as contextualized for this research

Supporting data elicitation methodologies are used to gather the information required to complete this synthesis framework and enable the testing and refinement of the WfS imaginary, and to inform a playbook and map for transitioning toward such a future. The DVF criteria will act as guide rails for experimentation toward a WfS future (see Figure 12 for a visual representation of how these pieces fit together).

The research process began with exploratory secondary research using ecosystem scanning and solution scanning methods to help define the problem and understand in-market solutions and ideas for solving it. This phase of work generated the context for the primary desirability research including the WfS concept and future of work scenario which were used as workshop stimulus. This solution scan also informed a toolbox of emerging technologies to inform primary feasibility research.

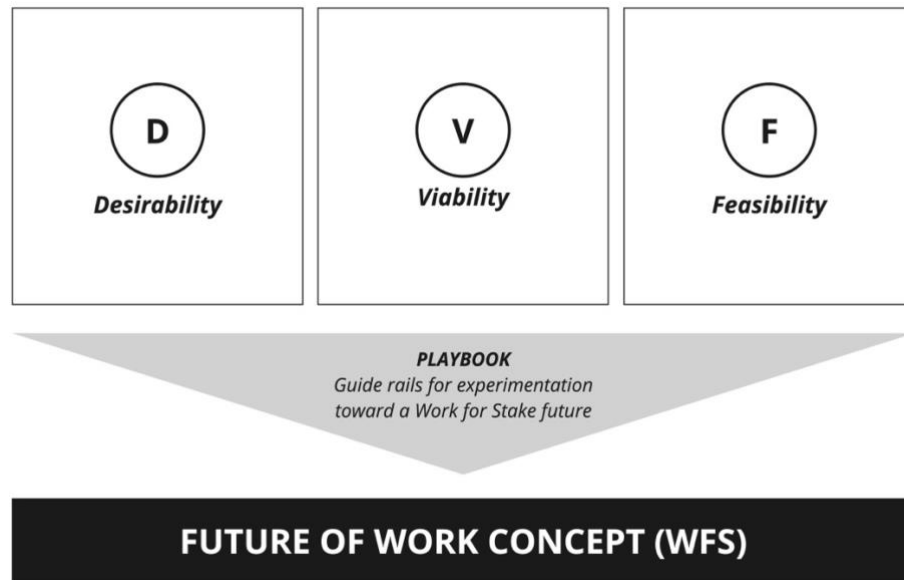


Figure 13 Visual of how the DVF criteria inform the playbook and provide the means for bringing about a WfS future

The next step in the process was a descriptive and generative co-creation session with 7 young (under 35 years of age) workers in the Toronto area with an expressed interest in digital economies and the future of work. The purpose of this session was to understand what solutions are desirable from a user perspective, understand key needs and pain points, and generate a set of returns on work to be validated with experts to inform viability and generate an idealized archetype of a future worker to unearth assumptions about the future of work, barriers to action, and limits of imagination. While the saturation point for thematic, qualitative research tends to be around 12 participants, a sample of 6 is often considered sufficient for determining overarching themes. Given the descriptive, generative, and structured nature of this phase of research, high-level themes were considered adequate and appropriate for practical constraints (Rosala, 2021). As a next step, validating these findings with a broader and more diverse sample set would be recommended.

Participants were selected through a recruitment survey and participated in a 3-hour session comprised of generative co-creation activities, and interactive surveys embedded in the contextualizing presentation interludes throughout the session. A post-session survey was distributed to capture lasting impressions and enable a comparative analysis with in-session paradigms to understand whether a meaningful paradigm shift took place because of exposure to and participation in creating new information and data around the future of work. The session generated three survey-based outputs from pre-session, in-session, and post-session instruments. Sets of user story cards, returns on work mapped to the WfS Continuum, and archetypes of the future were generated and used as inputs for the desirability component of the DVF as well as providing context for follow-on expert interviews and virtual working sessions. The returns on work were evaluated for ownership potential based on a set of key criteria and those with ownership generating potential were converted into value chains included in the expert working session Miro board.

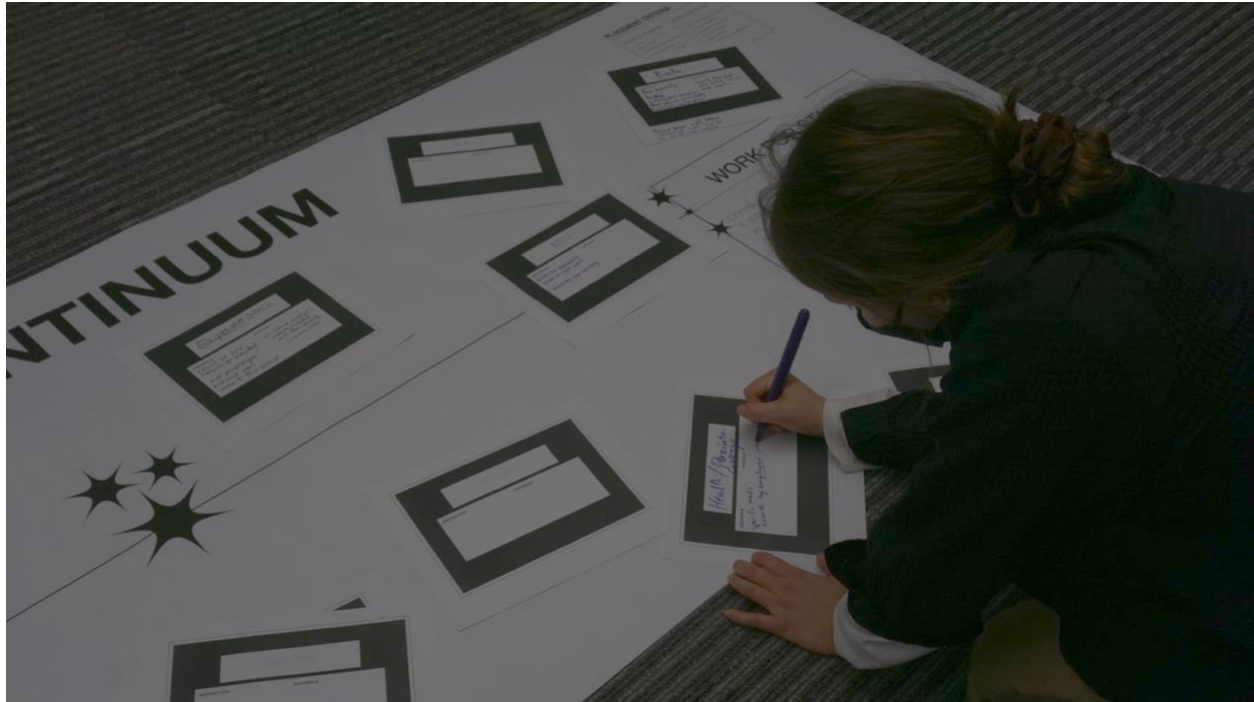


Figure 14 Image of a participant filling out a Return on Work Card in the co-creation session

Some of the secondary research including key articles and themes, as well as a summary of desirability findings were also included in the expert working session Miro board. The expert working session and interviews consisted of descriptive (interview components) and evaluative (working session components) elements. Over the course of the research, 6 experts were engaged to describe the context and evaluate ownership tools, value chains, and models. Experts included represented Rutgers School of Management and Labor Relations, University of Colorado Boulder Media Economies Lab, Democracy Collaborative, and Accenture, as well as experts in employee ownership and web3. These blended interviews and working sessions generated a set of validated and refined ownership value chains, a set of validated digital tools and recommendations for a worker technology stack for experimentation and recommended organizational models and both top-down and bottom-up incentives for driving ownership within and outside corporations. These outputs informed the viability and feasibility components of the framework. For the full process map of inputs and outputs see Figure 15.

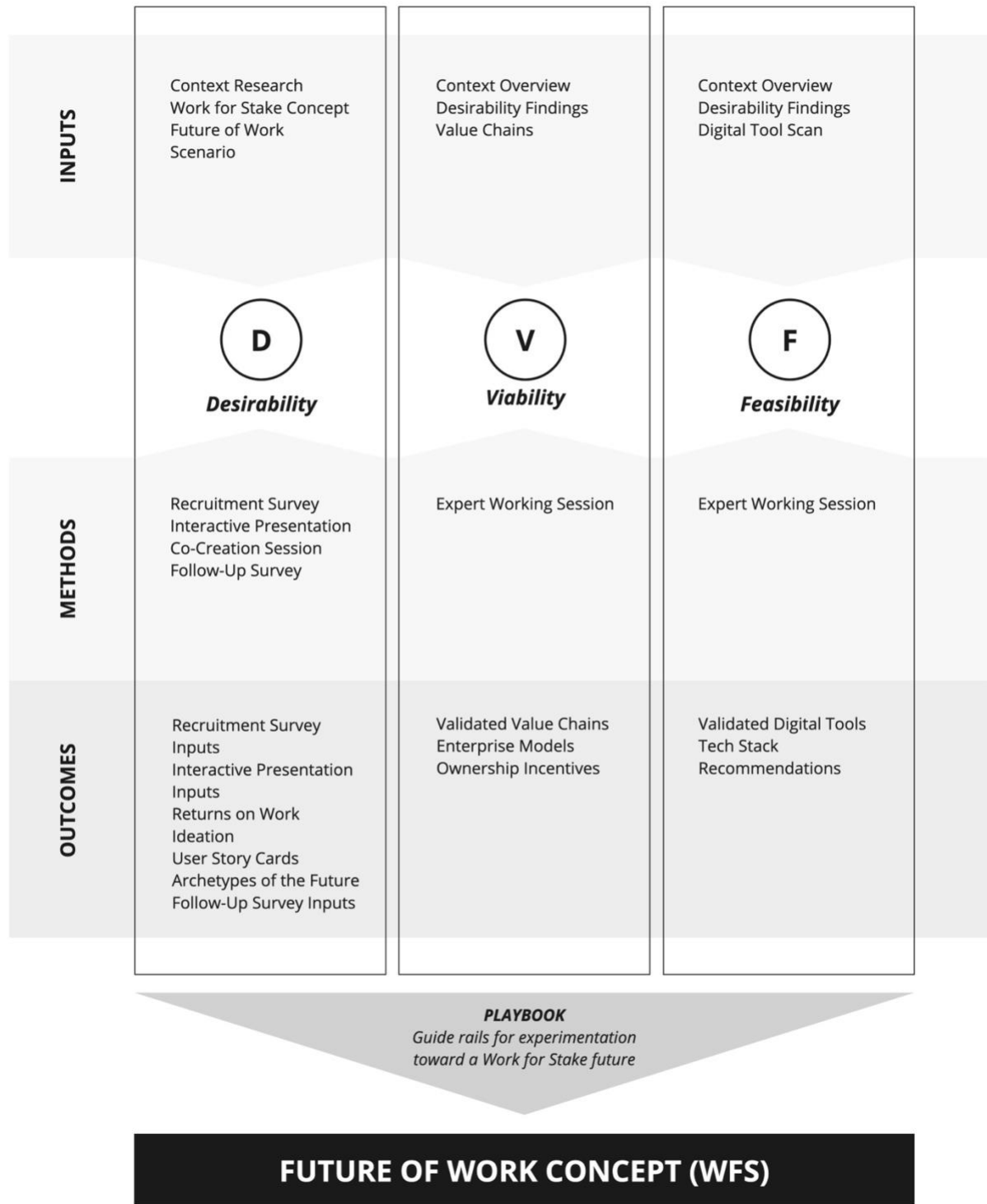


Figure 15 Detailed overview of the research methods, inputs, and outputs

Analysis & Findings

The ecosystem and solution scan provided a map of challenges facing workers in today's labour market and framed opportunities for innovation so as to guide ideation for workers. The challenges anchored to experiences of growing insecurity and rising inequality, within a workforce that is swiftly shifting in composition (a result of consolidated employers and rising retirement age) and intensifying its expectations of workers thanks to a rapidly increasing number of digital tools that enable granular quantification and optimization of worker activities. As a result, this research found that change depends on workers' ability to enhance their own value and competitiveness amid these shifting conditions, locate new ways to make a sustainable living in a flat inflation-adjusted wage economy, and find decent and secure work in the short to mid-term as a stopgap for declining wellbeing and eroding labour protections.

The greatest opportunities for enacting bottom-up change within these conditions were authored into a future of work imaginary termed work for stake; the concept includes starting points for action and uses a story-based framing as a mnemonic aide. WfS is an ownership-driven arrangement where a worker contributes value to a product in exchange for a stake, which provides monetary or other benefits if it succeeds. It emphasizes economic benefit and voice for individual value-creators, made accessible by emerging technologies. WfS is comprised of six components which enable it to deliver on its vision of the future and breakdown into technological, social, and organizational categories. Micro-financialization capabilities made possible by new web3 infrastructures and low-barrier composable tools and platforms enable workers to build with unprecedented power and scale and without the middleman or gatekeepers that plague many other work arrangements. Building peer-to-peer social structures within which one communicates and amplifies a clear value offering can help generate self-organizing teams and opportunities for workers that are less reliant on employer-owned contracts and enable greater flexibility. Finally, setting up organizing systems that enable security from both a skill and returns on work perspective is critical. This is best achieved from the perspective of this research by creating systems for continuous learning and taking a diversified portfolio-based approach to work. These principles scale with the emergent values and mandates of an increasingly digital, decentralized, and permissionless world.

Worker Desirability

The concept was tested with workers and analyzed to evaluate the concept's potential for encouraging workers to adopt more ownership-optimizing behaviours. This was evaluated on two vectors informed by academic experiments in social, cognitive, and behavioural psychology: motivation and ease (Ferrier, 2014). Motivation is driven by individual incentives and social norms, whereas ease is driven by ability and opportunity. Based on participant feedback the individual incentive was moderate to high. Workers had an 80% positive sentiment toward WfS versus a 0% positive sentiment toward working for a wage indicating a need for change.

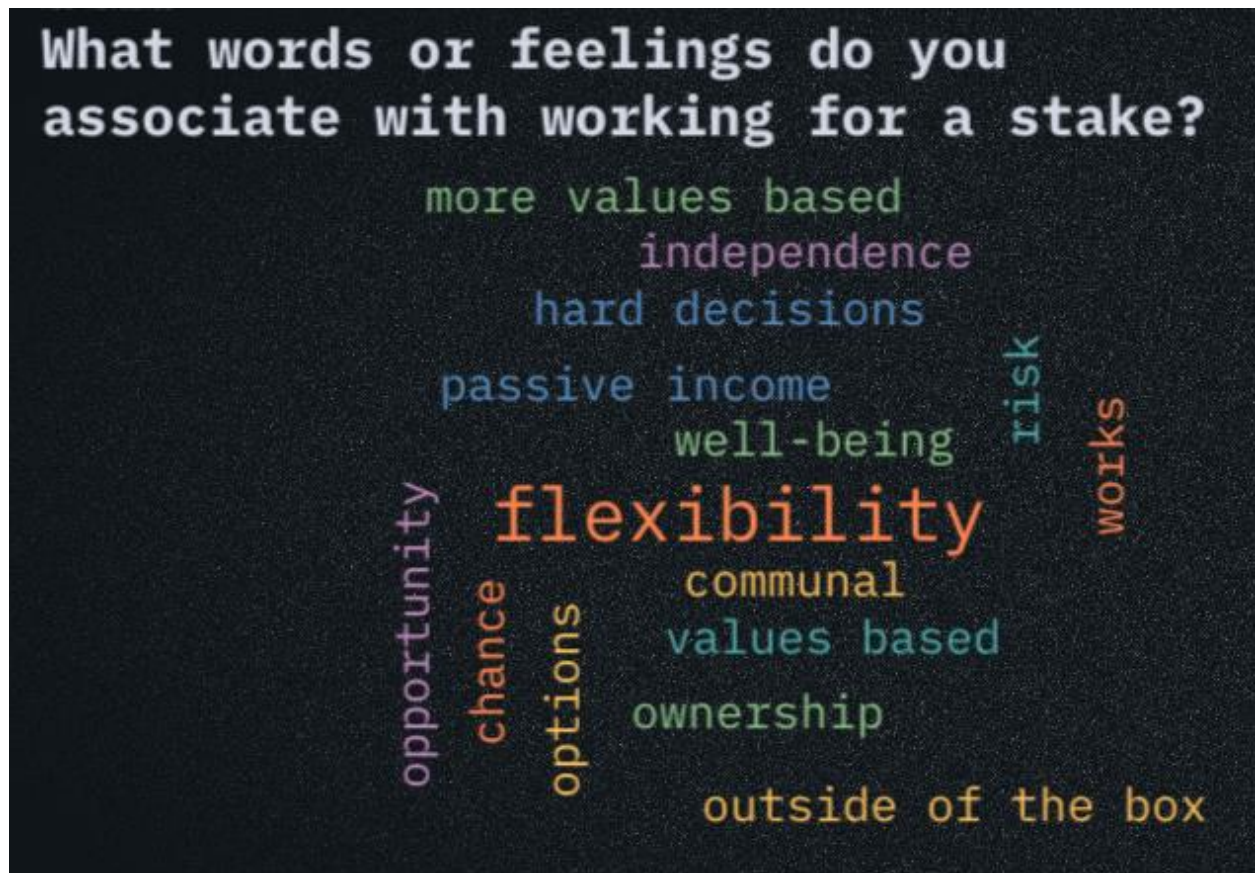


Figure 16 Work for Stake first impression word cloud from participant co-creation session

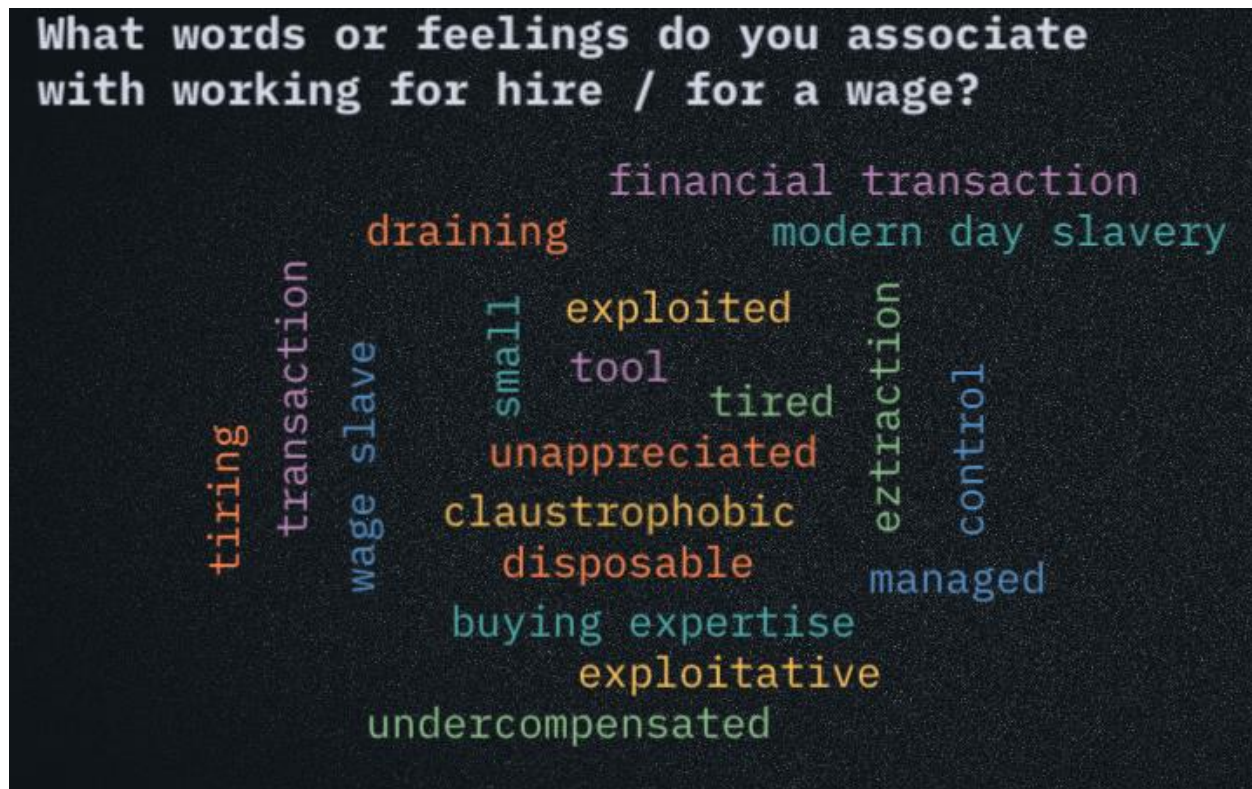


Figure 17 Work for Hire association word cloud from participant co-creation session

Workers' self-concept also did not map to their conception of an ideal worker in the near future indicating an incentive for change; if they make a shift to better position themselves for this plausible future, they are more likely to meet the needs and derive the benefits they articulated in the session as a result of being better prepared to offer value in a shifting ecosystem.

To frame the findings in a way that illuminates pathways toward behaviour change for workers, a B=MAT (behaviour = motivation, ability, trigger) analysis framework was used. This tool synthesizes what might motivate a person to adopt a new behaviour, and how capable they are of doing the new behaviour. B=MAT supports the generation of executional ideas to address change challenges, and enable in-context persuasion, in this case toward outcomes more in the interests of workers themselves (Barker & Hollingworth, 2020). WfS as a concept and vision of the future was assessed as a trigger for behaviour shift as enabled by tools such as the playbook that might enhance ease of action. Ownership optimizing behaviours were assessed for ability and motivation using workshop inputs to evaluate the behavioural propensity (see Figure 18 for the analysis map). WfS was found to have a low-moderate relationship to social norms. As a net-new concept, it is unknown and unfamiliar and as such workers may be viewed as taking unnecessary risks or feel othered by their communities who may judge them for making an alternative decision. However, it is becoming increasingly normalized to take an alternative path to employment. This was indicated in worker responses to post-session surveys about why working for a wage is losing its fit with society. It is likely that social acceptance of such an idea should it be made clear, accessible, and explainable will continue to grow. Overall, the motivation for WfS is moderate with a high potential for growth.

Ease is the more challenging factor in creating behaviour change among workers. Through in-session survey responses, workers indicated that overall, they selected work for convenience and ease factors even though these models were out of alignment with their ideals or desires. There is a moderate to high opportunity given that the recommended tools are permissionless, open source, and low/no code, however, there is relatively low ability in the current state. Workers felt unclear on exactly how to operationalize and implement WfS, returns felt uncertain to them, and they felt unable to take on risk given their current economic constraints.

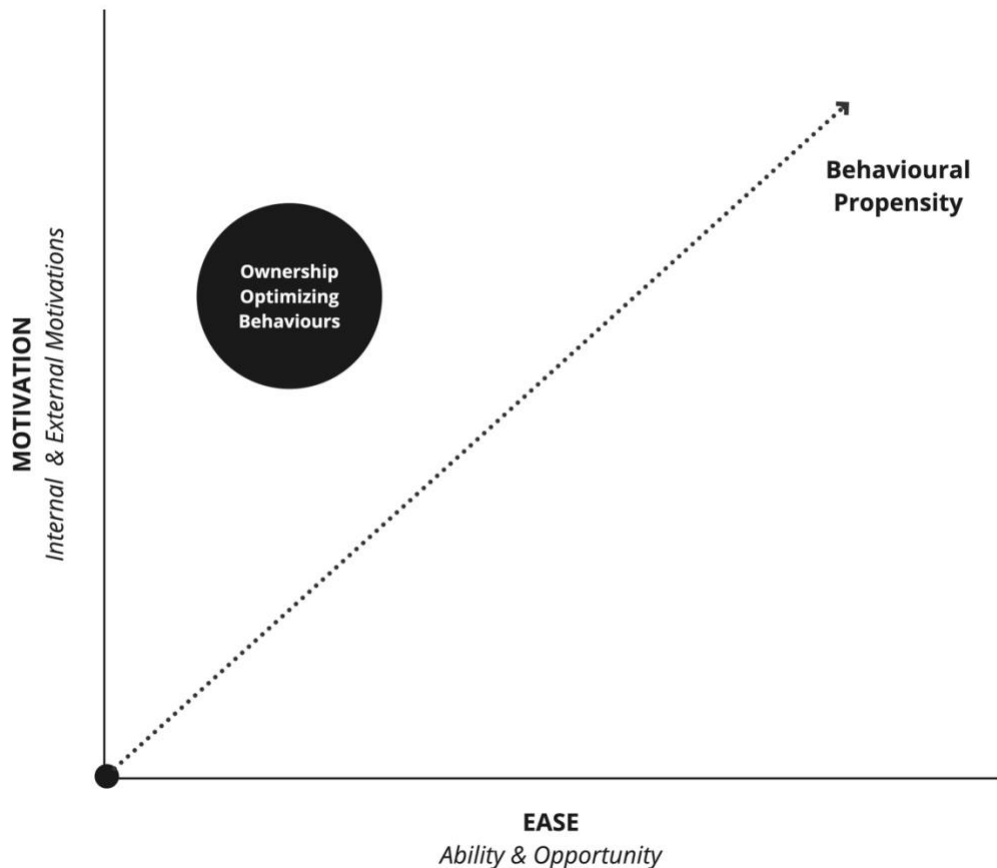


Figure 18 Mapping participants' likelihood to engage in ownership optimizing behaviours using the WfS concept as an action trigger using the B=MAT behaviour change framework

Given this analysis, this research hypothesizes that the greatest opportunity for a behaviour shift toward ownership optimization lies in making probable and plausible futures of work easier to act upon. This involves providing and supporting workers with the resources, competencies, and skills necessary adopt new behaviours. Skilling-up workers and galvanizing commitment to change are posited as the most powerful sparks for behaviour change. Skilling-up means equipping workers with the skills and knowledge to begin to act toward enhanced ownership affirming the need for a more robust transition map and playbook contributed to by this work. Commitment is about moving toward a bigger change in incremental steps. This is enabled by building

on existing solutions, experimenting, and designing portfolio approaches to work that incrementally move further toward ownership. Initiatives that create group commitment or pledges to action are worthwhile future explorations to experiment with moving the needle on this lagging ease vector.

Through primary design research, ownership's risks, costs, and benefits were articulated. The research found that a shift toward ownership optimizing work arrangements involves short-term risk but is necessary for long-term success given the challenges facing today's workers. To mitigate the transitional risk, this research reiterates the need for the portfolio-based approach and uses the innovation ambition matrix as a distribution heuristic and conceptual framework for balancing risk and returns. This approach supports findings from co-creation sessions with young workers in the Toronto area. Particularly the insight that new models of work offering agency-enhancing features without requiring high levels of risk and uncertainty are required to meet the needs of today's workforce. Workers expressed a desire for freedom and economic autonomy (Radosevich & Fox, 2023) yet this desire was not matched by a willingness to take on the levels of risk and uncertainty typically associated with agency-enhancing work models like entrepreneurship and self-employment. Participants cited the perceived loss of security, in the form of lost health or social security benefits, and more uncertain returns as challenging barriers to overcome for new models of work. They felt that the cost of living placed immediate demands on them making it difficult or rendering them unable to consider alternatives.

This finding was affirmed by workers' self-reported decision-making frameworks: workers who participated in the research continued to select models that they perceive as antithetical to self-determination, agency, flexibility, and well-being due to their accessibility, reliability, and conventionality. This selection of the perceived safe option despite mounting factors indicating its growing lack of fit was revealed again in post-session survey responses. Workers indicated that work-for-hire was losing its fit with modern lifestyles, particularly in a post-covid landscape they differentiated by values-led decision-making, inclinations toward entrepreneurial pursuits, and lessening amenability to command-and-control models among workers. Proven benefits of ownership for workers include improved workplace governance, more equitable work environments, greater voice in decision-making, lower rates of precarity during job cuts outsourcing and downturns, better job retention, higher pay, and benefits (Chen & Chen, 2021; Christensen et al., 2015; Dudley & Rouen, 2021; McCormick, 2022; Sareeta, 2020a). These outcomes are better aligned to the existing and growing vectors of workers' desires and the key levers for change this research has identified as critical for enhancing worker opportunity.

This research supports the idea that barriers to adoption include an inflated sense of security around the normative model of labour exchange and a lack of awareness and actionability of alternatives. This perspective is supported by participant survey responses stating that “*Wage labour offers to some extent the illusion of security and protection in life whereas work for stake appears loftier and less secure*” and indicated they were “*surprised to think about how the typical "9-5" corporate job could be as risky as a work-life where you have more agency.*” These findings suggest that there is an issue around a lack of compelling alternative narratives being communicated to workers that accurately frame risk and reward in a way that allows workers to clearly align their values, risk profiles, and desires to their approach to work. Furthermore, these findings indicate a need for future of work imaginaries like WfS to support workers in gaining exposure to the benefits of ownership, mitigating the risks in contextually appropriate ways using a portfolio-based approach, and making the transitional pathways clear and actionable so that workers can better select approaches to work that meet their multifaceted, individual needs.

Ownership Viability

Expert working sessions and interviews elicited recommendations for how workers might gain ownership status and what interoperable, composable tools can help them achieve it. This research has determined that the journey from pre-ownership to ownership status is enabled by four key ownership value chains including residuals, royalties, tokens, and employee stock (see Figure 19). While royalties and residuals are not typically differentiated, they are distinct in that royalties are typically used in a variety of industries where ownership of intellectual property created or owned is licensed whereas residuals are more common in entertainment where ownership is exchanged for services rendered. Similarly, employee ownership was determined to be a broad category comprised of many subtly varied value chains such as Employee Share Ownership Trusts, Employee Stock Option Plans, Employee Stock Purchase Plans, and equity compensation. Selection is typically dependent on the size and ownership structure of the enterprise. Data ownership was determined to be a contested area, with multiple levels of data requiring ownership and various monetization strategies, such as royalties, licensing, and tokens, to realize the data's value. Given this, this research has determined that data is not an ownership value chain at this time.

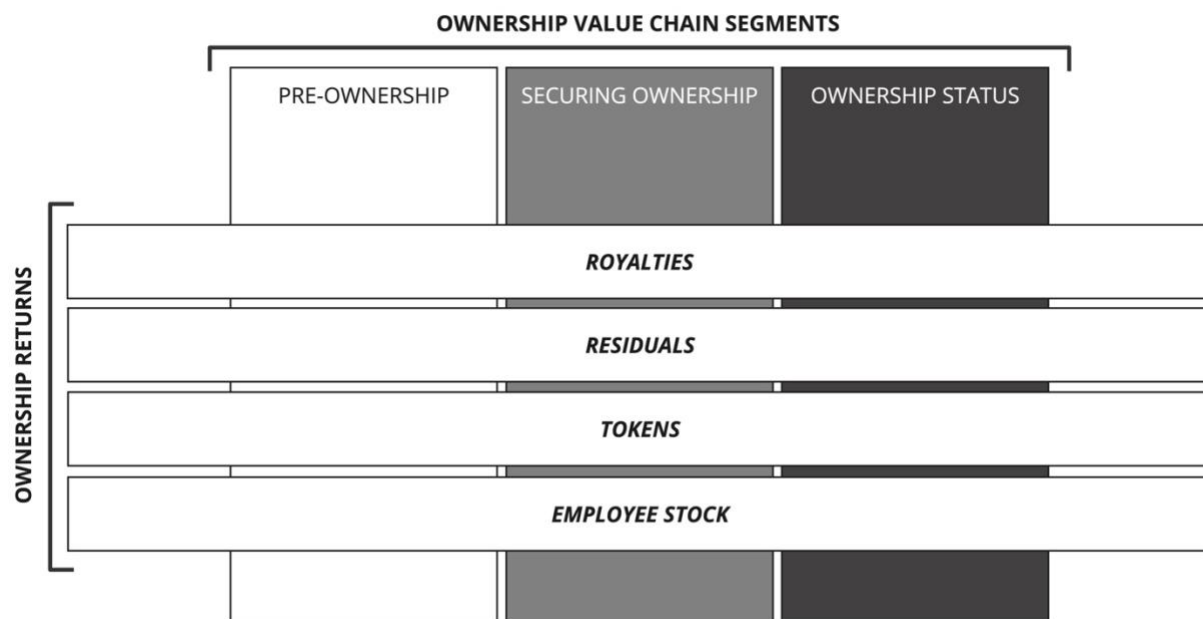


Figure 19 Ownership returns and value chain segments validated in expert working sessions

Emerging technologies such as tokens and blockchain are likely to play an increasingly important role in enabling ownership opportunities and reshaping the ownership value chain. Tokens in particular, with their rich, frictionless, and low-barrier design space have the potential to become the primary representation of ownership in a digitally-native future, enabling other ownership value chains (McCormick, 2021). For instance, blockchain-based smart contracts and authentication could be used as the contracts and title-granting tools that

enable royalties. This shift in ownership opportunities shifts the question from ‘What ownership and stake-supporting opportunities do emerging technologies enable?’, to ‘How will ownership opportunities be realized differently in digitally native interactions?’

These expert sessions also revealed key differences in optimal pathways for independent and self-employed workers. For independent workers, promising pathways suggested by experts include LLC/Sole Proprietorship, the Hollywood Teaming Model, the High-Skilled Worker, and DAOs (see Table 4). For employed workers, securing a position in a company with an established employee ownership plan, advocating for collective bargaining for profit sharing, and educating on bottom-line transparency are promising pathways (see Table 3).

Table 3 Recommended Organizational Models for Employed Workers

Organizational Model	Description	Potential Benefits
Established Employee Ownership Plan	Securing employment in a company that has an established employee ownership plan can be an effective pathway to a fair salary and building wealth.	Fair salary, potential for building wealth
Collective Bargaining for Profit Sharing	Unions can focus on profit sharing as part of their collective bargaining policies, given that the concentration of wealth is creating declining returns to labor. They can leverage top-down incentives and take a light touch educational approach to begin and get stakeholders on-side.	Potential for additional income from capital
Advocacy for/Education on Bottom-Line Transparency	Methods like open book accounting can shift the culture toward ownership and make employees more aware of how the business works and their role in driving key outcomes.	Increased understanding of the business value chain and how to contribute to key outcomes

Table 4 Recommended Organizational Models for Independent Workers

Organizational Model	Description	Potential Benefits
LLC/Sole Proprietorship	Traditional small businesses are easy to start, low cost, and have legal structures already in place. They represent a simple path to owning an enterprise a worker could buy or sell. Automation has made it possible to become a billion-dollar solopreneur, meaning this model has high potential for strong returns.	Easy to start, low cost, simple path to owning an enterprise
‘Hollywood’ Teaming	A team forms up to accomplish a specific task and deforms once that task has been completed, organized via trusted relationships. Practitioners of this model often use frameworks and tools like letter agreements, residuals, digital collaboration tools, and union structures as means to organize and share profits.	Potential for profits from specific tasks
The HSW (High-Skilled Worker)	High-skilled workers are in consistent and growing demand. They can negotiate for better work arrangements and have greater resilience, enabling them to build their own safety nets. However, the most in-demand skills are always shifting.	Negotiation power, greater resilience, potential for building safety nets
Part-Time DAOs (Decentralized)	Digital tools and tokens in DAOs have a number of applications that enhance coordination and collective effectiveness. The most successful types of DAOs are investment club-style groups of like-minded people who are somewhat interested but not committed full-time to an effort.	Potential for enhanced coordination and collective effectiveness

Organizational Model	Description	Potential Benefits
Autonomous Organizations)	DAOs have a strong culture of anonymity and play, which has made designing for the right degree of commitment and getting people to do work a particular challenge to date.	

The success of various ownership models depends on the level of risk and how a worker structures their ownership portfolio. In the co-creation session with participants, they aligned their user stories to the returns on work that were generated in the session to create their own contextually desirable portfolios. The portfolios created by workers were largely low-moderate risk with some growth-driving components. These provide a starting point for other workers to think through the sorts of returns that might align with their desires (pictured in Figure 20).

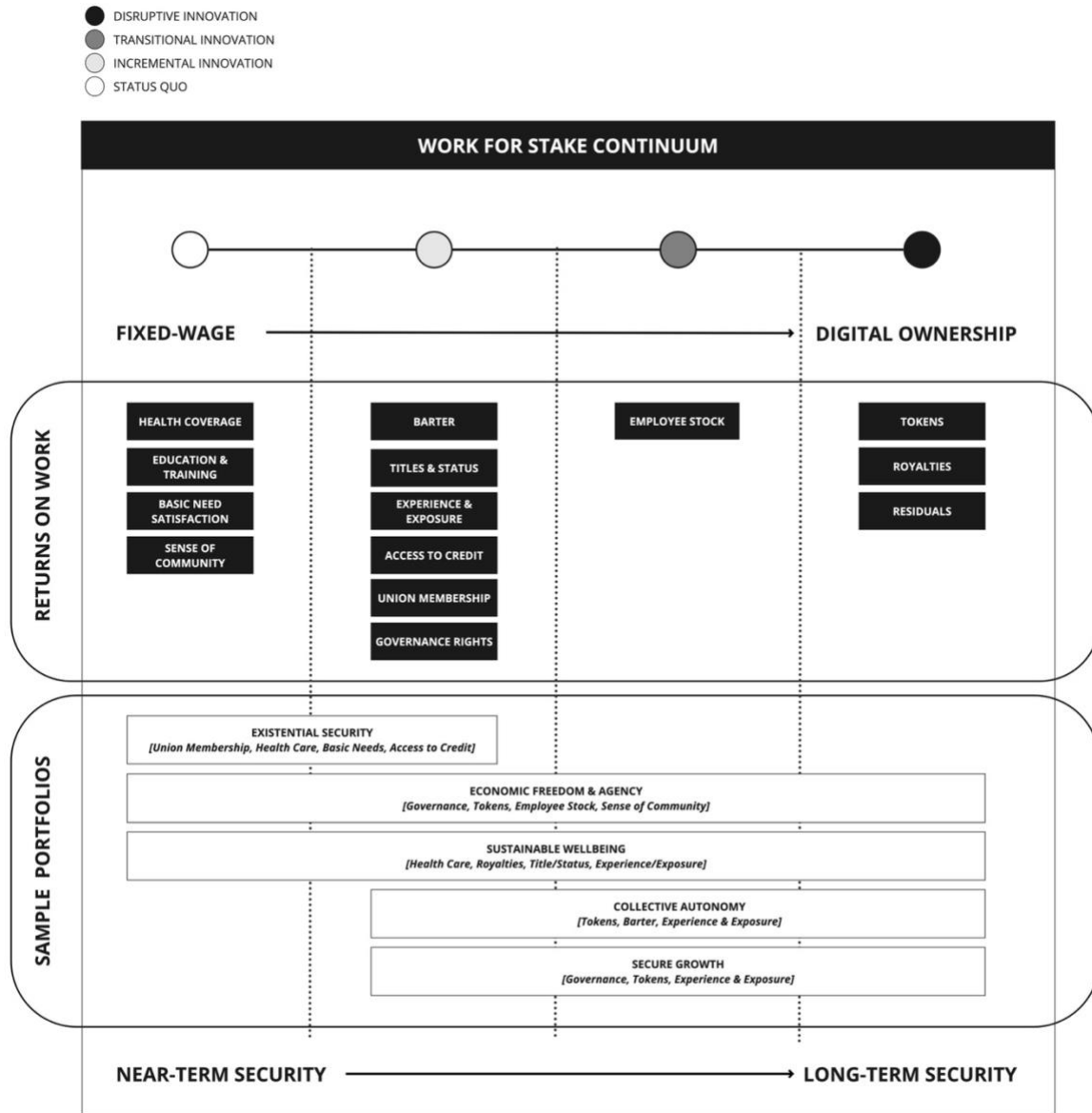


Figure 20 WfS Continuum as innovation portfolio structuring framework including potential returns and sample portfolios generated by participants in the co-creation session

Interestingly, While the models for independent and employed workers differ significantly, both models offer pathways to ownership. The organizational structure or model is the superstructure within which the consecutive steps to achieving ownership and securing owner status are executed (value chains). After synthesizing the insights from expert working sessions, there was no clear evidence that one model is more secure than the other. Rather, the balance of an ownership portfolio, the value chains therein, and individual context and desirability assessments will determine the best option for a given worker. Together these factors, insights, approaches, and the future of work concept provide a vision of the future and a map for making the transition.

Technical Feasibility

Experts affirmed the technical feasibility of implementing an ownership value chain with existing technologies and tools and identified three key categories of a composable technology stack that might power ownership models and value chains. This stack is comprised of generative, financialization, and coordination tools (see Figure 21 for a visualization of the tech stack and related tools in each layer). Generative tools, such as generative AI, can automate processes and activities, increasing productivity and efficiency across all sectors, with potential for scalability in the future. However, the risk of intellectual property must be considered when taking co-generated materials to market. Financialization tools, such as the Ethereum lightning network, have the highest potential for enabling scalable and instant transactions, allowing for fractional ownership and no intermediaries. Experts suggest iterating on new go-to-market models for goods and services created in partnership with generative tools. Coordination tools, including smart contracts, attention and governance tokens, and digital coordination and collaboration tools, can make governance and coordination easier, but traditional politicking and lobbying still play a role. Research is necessary to determine how to structure projects, communities, and enterprises that reward participants for the value they contribute. It is important to note that building with new and increasingly powerful tools and technologies does not preclude the use of existing ones. The creator economy is a particularly vital example of web2 technology stacks that, while not optimized for ownership, underpin viable economic models for independent workers (see Figure 22 for an example). Blending existing and emerging tools is likely the most feasible pathway toward robust technical infrastructures.

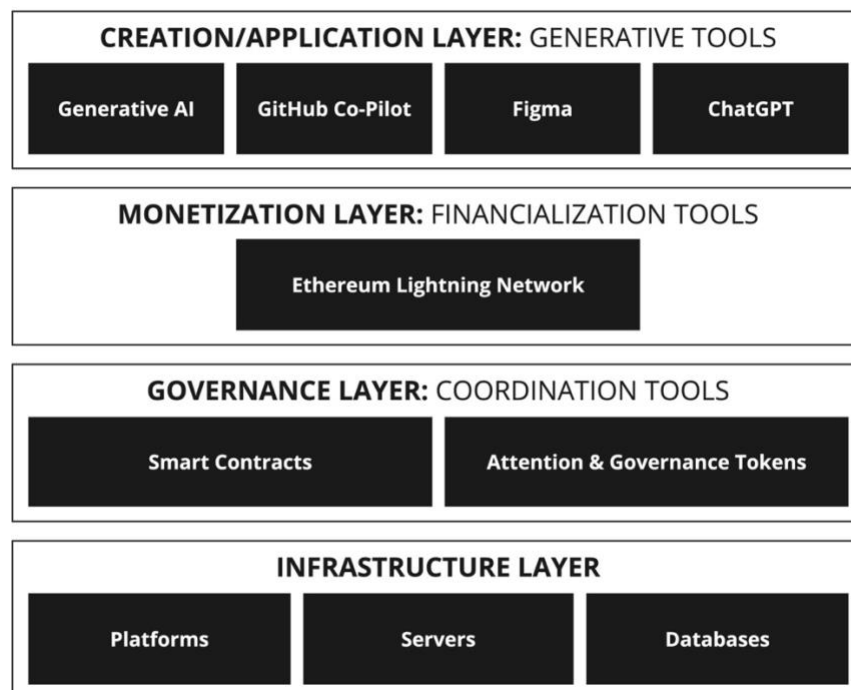


Figure 21 Emerging technology stack for enabling ownership experimentation with interoperable, composable online tools



Figure 22 Example of creator economy horizontal and vertical technology stacks to illustrate how already familiar tools are composable and can generate new models and unlock new ways of working (McCormick, 2021)

Advancing Worker-Led Experimentation Toward Better Futures

The DVF criteria and solution scan are critical inputs to the playbook for worker-led experimentation. The DVF (of which this is a version 1 with expected future iterations), completed through primary research with workers and experts in the domains of labour, emerging technology, innovation, and ownership translates insights into actionable criteria for each key category: desirability, feasibility, and viability (see Table 5 for the full criteria readout). The solution scan builds on the key findings that informed the WfS concept and provides a starting point for ideation through a list of high-potential categories and a supporting list of examples for each (see

Table 6 for details). Together, these tools can help workers begin to plan and evaluate experimentation toward ownership-based models for work and increase the odds of success by providing research-informed guardrails. The DVF criteria requires testing and application to worker experimentation to validate and further refine to ensure effectiveness as a tool but offers a good starting point; one which represents a synthesis of the findings of this research. The criteria, solution starters, WfS concept, innovation ambition matrix, ownership value chains, returns on work, theory of behaviour change, and additional appendix materials including initial insights on ownership cultures and incentives represent the contributions of this research to a nascent playbook for worker-led experimentation and ownership.

Table 5 Table 8 DVF Framework Prioritization Guide for Workers Developing WfS Solutions

Desirability Criteria	Feasibility Criteria	Viability Criteria
Financial Security & Stability: <i>Does this solution provide financial stability and security for workers?</i>	Generative Creation: <i>Does this solution leverage generative technologies that enhance ease and speed of creation?</i>	Wealth Generation: <i>Does this solution have the potential for wealth generation for workers?</i>
Physical & Emotional Wellbeing: <i>Does this solution prioritize the physical and emotional wellbeing of workers?</i>	Decentralized Coordination: <i>Does this solution leverage decentralized communication tools that enable scale?</i>	Meaning: <i>Does this solution enhance meaningful work and opportunities for workers?</i>
Autonomy & Control Over Life Choices: <i>Does this solution empower workers with autonomy and control over their life choices?</i>	Secure Monetization: <i>Does this solution build on reasonably secure and future-proof financial tools and infrastructures that enhance keep-rates and flexibility at scale?</i>	Culture of Care: <i>Does this solution foster a culture of care and support around workers?</i>

Desirability Criteria	Feasibility Criteria	Viability Criteria
Growth Potential: <i>Does this solution support the potential for growth and development of workers?</i>		Competitive Infrastructure: <i>Does this solution align to a competitive infrastructure that will enable workers to sustainably improve outcomes?</i>
		Convenience & Ease: <i>Is this solution convenient and easy for workers to implement and use?</i>
		Education & Knowledge: <i>Does this solution provide opportunities for knowledge-building for workers?</i>
		Aligned Expectations: <i>Are the expectations of workers and the solution aligned with each other?</i>
		Appropriate Degree of Personal Responsibility: <i>Does this solution require a realistic degree of personal responsibility from workers?</i>
		Balance between short-term and long-term benefits: <i>Does this solution strike a balance between short-term and long-term benefits for workers?</i>

Table 6 High Potential Solution-Spaces for Realizing a Work for Stake Future

Solution Space	Description	Examples
Data Enabled Micro-Financialization	Digitalization renders granular actions into data points. Web3 protocols allow data to be packaged into tradeable instruments while preserving access rights. Workers may find scalable income generators and access to reliable work. Such work could increase agency and control while also generating valuable future skills in digital asset creation and monetization (Antaraxia, 2022).	<ul style="list-style-type: none"> Dust protocol (DeGods utility token) Ethereum Proof of Stake Decentralized Exchanges e.g., Uniswap & Sushiswap
Low Barrier Composable Tools & Platforms	Open-source tools are the foundation of composability, the ability to mix and match software components. Workers can create scalable income generators and whole businesses that previously would have required many experts, simply, quickly, and with a staff of one, even with low or no code (Dixon, 2021; Xie, 2021)	<ul style="list-style-type: none"> Personal AI Digital Wallets as a service Smart Contracts Token gating Composite protocols or tokens like Yearn or Element NFTs & the Loot ecosystem

Solution Space	Description	Examples
Self-Organizing Peer-to-Peer & Ecosystem Connector	Enhancing competitive value and security can be achieved through self-organization toward the end of sharing. Coevolving capabilities around a shared set of technologies, knowledge, or skills, and working cooperatively and competitively can enable the development of new innovations and enterprises. Connecting nodes without the need for central authority or governing bodies mitigates outsourcing risks (Anderson & Rainie, 2022; Forbes Expert Panel, 2021b; Schneider, 2018; Taddeo, 2016)	<ul style="list-style-type: none"> • Brain Trusts • Co-Skilling • Mentorship & Networking • Mutual Aid • Micro-Lending • Agile Teams
Personal Value Awareness & Amplification	Reflection and self-awareness are essential to build a clear value proposition that makes workers relevant to the projects and goals that others seek to realize. This principle generates security through positive perception and virtuous cycles of value creation that act as an attractor for opportunity (Edwards, 2020; Glassdoor Team, 2021; Quast, 2016; Staats, 2021)	<ul style="list-style-type: none"> • Visibility • Shareability • Value-Led Digital Identity • Strengths-Led Strategy
Continuous Learning Processes & Environments	Intensifying skill requirements and rapid technological change require the implementation of continuous learning processes and environments essential to self-generating opportunities and informing adaptive strategies with the additional benefit of generating expertise (Forbes Expert Panel, 2021; Gallo, 2012; Zaaijer, 2020)	<ul style="list-style-type: none"> • Sensing & Scanning • Sandboxes
Diversification	Compensating for negative wage growth and growing financial precarity necessitates a portfolio approach to employment. Mitigating risk by spreading investments or income generation across different asset classes, industries, or sources whether those sources are active or passive generators of income (Coursera, 2023; Keenan, 2022; Matthews, 2021; Side Hustle Stack, n.d.)	<ul style="list-style-type: none"> • Passive Income • Side Hustles • Contracts • Long-term Employment

Conclusion

This project was designed as a co-creative exploration to validate the hypothesis that worker-led experimentation with interoperable digital ownership tools can lead to worker-centred innovations that increase worker stake within the enterprises for which they generate value, answering the core question, “How might workers use composable online tools to enable ownership-driven change?” Using the fields of labour, innovation, emerging technologies, and ownership the goal was to:

1. clearly articulate the ownership opportunity and facilitate a paradigm shift through the introduction of a new future of work imaginary
2. advance a nascent digital ownership playbook through the contribution of tools and frameworks that enable successful worker-led experimentation
3. outline clear strategies and tactics for ownership-optimizing behaviours and actions to map the pathway for a transition from the current, normative state of work (low freedom, low security) toward a better future for workers (high freedom, greater security)

By contributing these components to the conversation around digital ownership and the future of work this research sought to enable behaviour change by reducing friction and increasing motivation to act so that workers could more feasibly improve their lived experience and work-based outcomes.

In summary, this work has determined that there is a high likelihood that composable online tools spanning the core work-enabling functions of coordination, financialization, and generative capabilities can enable ownership; Particularly when strategically paired with contextually optimized models for work and a portfolio of ownership value chains and other returns on work that match worker desirability criteria and risk profiles. However, further experimentation and validation are required to understand if these theoretical criteria and recommendations bear out in practice.


As individuals look to scale and collaborate, additional research will be required to determine how to structure projects, communities, and enterprises that reward participants for the value they contribute at multiple scales: individual, small group, and large enterprise. Groups like 'Exit to Community' are exploring stakeholder involvement and value capture models as an alternative to shareholder and founder supremacy models. While wider distribution may result in dilution of existing value share and decreased decision-making speed, tools that align incentives, build strong cultures, and automate operational components can enhance the value created, grow the bottom line, increase the meaningfulness of work, and create more sustainable and economically viable enterprises.

To advance this work, validate assumptions, and determine whether findings generated from a small sample set are generalizable some key next steps have been outlined here. Experiments with workers using playbook materials must be conducted to determine whether they work in practice. Insights around behavioural shifts should be replicated with larger sample sizes. The work for stake concept should be refined and retested with a larger set of workers to determine whether it is effective for increasing motivation to act and creates an increased perception around ease of action. DVF findings should be validated with a broader sample size of practitioners to determine their broader accuracy.

Additional themes of intellectual property, top-down and bottom-up incentives, as well as key qualities of ownership enabling cultures came up in the research. These were out of scope for this research paper but are interesting areas for further exploration in adjacent areas to support the development of this domain and related ideas.

As generative AI and large language models (LLMs) rapidly take hold of the marketplace and loom threateningly in the workplace, research like this will be important in instilling hope and finding viable pathways in an unprecedented time in the intersection between emerging technology and the labour market. It is the hope of this researcher to socialize key findings with thinkers, practitioners, and workers contending with ideas, realities, and shifts in this space to continue to evolve the work for stake dialogue, experiments, and findings.

Bibliography

- Aaron, H. J. (2020, June 23). The social safety net: The gaps that COVID-19 spotlights. *Brookings*.
<https://www.brookings.edu/blog/up-front/2020/06/23/the-social-safety-net-the-gaps-that-covid-19-spotlights/>
- Adkins, L., & Konings, M. (2019, September 9). *Class in the 21st century: Asset inflation and the new logic of inequality—Lisa Adkins, Melinda Cooper, Martijn Konings, 2021*.
<https://journals.sagepub.com/doi/10.1177/0308518X19873673>
- Anderson, J., & Rainie, L. (2022, February 7). Visions of the Internet in 2035. *Pew Research Center: Internet, Science & Tech*. <https://www.pewresearch.org/internet/2022/02/07/visions-of-the-internet-in-2035/>
- Antaraxia. (2022, February 14). *The Data Access financial asset class—Thesis*. Through the Web3 X AI Rabbit Hole. <https://web3ai.ghost.io/data-finance-ecosystem-thesis/>
- Bazzani, G. (2023). Futures in Action: Expectations, Imaginaries and Narratives of the Future. *Sociology*, 57(2), 382–397. <https://doi.org/10.1177/00380385221138010>
- Bixby, J. (2021, January 18). *Council Post: Experimentation Is The Key To Innovation And Developers Make It Happen*. Forbes. <https://www.forbes.com/sites/forbestechcouncil/2021/01/08/experimentation-is-the-key-to-innovation-and-developers-make-it-happen/>
- Brown, R. (n.d.). *Riley Brown (@tech.n.trendz) | TikTok*. Retrieved January 11, 2023, from <https://www.tiktok.com/@tech.n.trendz>
- Chen, K. K., & Chen, V. T. (2021).  [PDF] *Organizational Imaginaries by Katherine K. Chen / Perlego*.
<https://www.perlego.com/book/2350120/organizational-imaginaries-tempering-capitalism-and-tending-to-communities-through-cooperatives-and-collectivist-democracy-pdf>
- Christensen, C. M., Raynor, M. E., & McDonald, R. (2015, December 1). What Is Disruptive Innovation?
Harvard Business Review. <https://hbr.org/2015/12/what-is-disruptive-innovation>

Coursera. (2023, February 21). *11 Passive Income Ideas to Increase Your Cash Flow*. Coursera.

<https://www.coursera.org/articles/passive-income>

Dixon, C. (2021, October 22). *Composability is to software as compounding interest is to finance*. A16z Crypto.

<https://a16zcrypto.com/content/article/composability-is-to-software-as-compounding-interest-is-to-finance/>

Dudley, T., & Rouen, E. (2021, May 13). The Big Benefits of Employee Ownership. *Harvard Business Review*.

<https://hbr.org/2021/05/the-big-benefits-of-employee-ownership>

Duguid, F., & Karaphillis, G. (n.d.). *Economic Impact of the Co-operative Sector in Canada*.

Edwards, C. (2020, June 3). *How to Increase Your Job Security*. Third Republic.

<https://www.thirdrepublic.com/blog/increase-job-security/>

Ehrlichman, D. (2021, September 22). Identifying Leverage Points in a System. *Converge Perspectives*.

<https://medium.com/converge-perspectives/identifying-leverage-points-in-a-system-3b917f70ab13>

Employee Ownership by the Numbers / NCEO. (n.d.). Retrieved January 29, 2023, from

<https://www.nceo.org/articles/employee-ownership-by-the-numbers>

ethereum.org. (2023, March 30). *What is Web3 and why is it important?* Ethereum.Org. <https://ethereum.org>

Evers-Hillstrom, K. (2023, April 12). Inflation eases as corporate profits fall from record levels [Text]. *The Hill*.

<https://thehill.com/business/3945727-inflation-eases-as-corporate-profits-fall-from-record-levels/>

Ferrier, A. (2014, May 28). *The Advertising Effect*. [https://www.goodreads.com/book/show/22395555-the-](https://www.goodreads.com/book/show/22395555-the-advertising-effect)

[advertising-effect](https://www.goodreads.com/book/show/22395555-the-advertising-effect)

Forbes Expert Panel. (2021a, February 22). *Council Post: 13 Practical Ways To Help Employees Adapt To New*

Technology. Forbes. [https://www.forbes.com/sites/forbeshumanresourcescouncil/2021/02/22/13-](https://www.forbes.com/sites/forbeshumanresourcescouncil/2021/02/22/13-practical-ways-to-help-employees-adapt-to-new-technology/)

[practical-ways-to-help-employees-adapt-to-new-technology/](https://www.forbes.com/sites/forbeshumanresourcescouncil/2021/02/22/13-practical-ways-to-help-employees-adapt-to-new-technology/)

Forbes Expert Panel. (2021b, October 22). *Council Post: Help Employees Continually Develop Their Skills With*

These 16 Strategies. Forbes.

- <https://www.forbes.com/sites/forbeshumanresourcescouncil/2021/10/22/help-employees-continually-develop-their-skills-with-these-16-strategies/>
- Galbraith, M. (2018, October 5). Don't Just Tell Employees Organizational Changes Are Coming—Explain Why. *Harvard Business Review*. <https://hbr.org/2018/10/dont-just-tell-employees-organizational-changes-are-coming-explain-why>
- Gallo, A. (2012, November 29). How to Master a New Skill. *Harvard Business Review*. <https://hbr.org/2012/11/how-to-master-a-new-skill>
- Gartner. (2023, April 6). *Gartner Forecasts Worldwide IT Spending to Grow 5.5% in 2023*. Gartner. <https://www.gartner.com/en/newsroom/press-releases/2023-04-06-gartner-forecasts-worldwide-it-spending-to-grow-5-percent-in-2023>
- Gibbons, S. (2021, November 14). *5 Prioritization Methods in UX Roadmapping*. Nielsen Norman Group. <https://www.nngroup.com/articles/prioritization-methods/>
- Glassdoor Team. (2021, June 29). *How to Increase Job Security (With Example Jobs)—Glassdoor Career Guides*. <https://www.glassdoor.com/blog/guide/job-security/>
- Government of Canada, I. (2021, December 22). *Key Small Business Statistics—2021* [Reports; Related Links; Statistical Reports]. Innovation, Science and Economic Development Canada. <https://ised-isde.canada.ca/site/sme-research-statistics/en/key-small-business-statistics/key-small-business-statistics-2021>
- Government of Canada, S. C. (2022, December 21). *The Daily—Canada's population estimates, third quarter 2022*. <https://www150.statcan.gc.ca/n1/daily-quotidien/221221/dq221221f-eng.htm>
- Government Of Canada, S. C. (2023, March 31). *The Daily—Co-operatives in Canada, 2020*. <https://www150.statcan.gc.ca/n1/daily-quotidien/230331/dq230331d-info-eng.htm>
- Hamilton, M. (2022, September 19). A Bold Path to an Inclusive, Thriving Economy: Employee Ownership. *The Rockefeller Foundation*. <https://www.rockefellerfoundation.org/case-study/a-bold-path-to-an-inclusive-thriving-economy-employee-ownership/>

Heath, A. (2023, February 2). *Mark Zuckerberg says Meta is making this the 'year of efficiency.'* The Verge.

<https://www.theverge.com/2023/2/1/23581938/mark-zuckerberg-meta-earnings-q4-efficiency-cutting-managers>

Hillel, I. (2020). Holes in the Social Safety Net: Poverty, Inequality and Social Assistance in Canada. *CSLS*

Research Reports, Article 2020–06. <https://ideas.repec.org/p/sls/resrep/1912.html>

Hollingworth, & Barker. (2020). *Behavioural Change Models*. The Behavioural Architects. Retrieved May 7, 2023, from

https://www.thebeearchitects.com/assets/uploads/ip/TBA%20Articles/Behavioural%20Change%20Models_C.pdf

IdeoU. (n.d.). *Design Thinking*. IDEO U. Retrieved April 30, 2023, from <https://www.ideo.com/pages/design-thinking>

International Labour Organization. (2022). *Global Wage Report 2022-2023*.

<https://www.ilo.org/digitalguides/en-gb/story/globalwagereport2022-23#intro>

Jurcys, P. (2021, November 23). *Personal Data Ownership*. Medium. <https://towardsdatascience.com/personal-data-ownership-f3b62e6ed07d>

Keenan, M. (2022, November 4). *30 Best Passive Income Ideas To Build Your Wealth (2023)*. Shopify.

<https://www.shopify.com/ca/blog/passive-income-ideas>

Kelly, C., Johnson, P., Sabasan, S., & Lee, D. (2021, June 17). *Low-code, No-code Revolution / Accenture*.

<https://www.accenture.com/us-en/insights/software-platforms/power-to-the-people>

Kruse. (2022, June 27). *Capital Income as a Percent of Compensation*. The Beyster Symposium.

Matthews, K. (2021, October 1). *4 Ways to Boost Your Financial Security*.

<https://www.americanexpress.com/en-us/credit-cards/credit-intel/financial-security/>

McCormick, P. (n.d.). *Power to the Person*. Retrieved January 29, 2023, from

<https://www.notboring.co/p/power-to-the-person>

McCormick, P. (2021, March 8). *Designing Token Economies*. <https://www.notboring.co/p/designing-token-economies>

McCormick, P. (2022, February 7). *Ownership and the American Dream*.

<https://www.notboring.co/p/ownership-and-the-american-dream>

McGaw, D., & Paradis, Z. J. (2007). *Naked Innovation*.

Meadows, D. (1999). Leverage Points: Places to Intervene in a System. *The Academy for Systems Change*.

<https://donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/>

Nagji, B., & Tuff, G. (2012, May 1). Managing Your Innovation Portfolio. *Harvard Business Review*.

<https://hbr.org/2012/05/managing-your-innovation-portfolio>

News, J. H. · C. (2021, December 24). *The pandemic has sent people fleeing from self-employment* / CBC

News. CBC. <https://www.cbc.ca/news/business/self-employment-decrease-1.6279658>

O'Brien, S. (2018, February 27). *Don't overlook the risk that comes with your employee stock options*. CNBC.

<https://www.cnbc.com/2018/02/27/employee-stock-options-can-come-with-expensive-risks.html>

Organizational imaginaries: Tempering capitalism and tending to communities through cooperatives and

collectivist democracy—Google Search. (n.d.). Retrieved January 29, 2023, from

[https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-](https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVFf-588ZeVdiefZhe-QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYkEHV5QCF4QnZMFegQIOxAC)

[8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVF](https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVFf-588ZeVdiefZhe-QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYkEHV5QCF4QnZMFegQIOxAC)

[f-588ZeVdiefZhe-](https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVFf-588ZeVdiefZhe-QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYkEHV5QCF4QnZMFegQIOxAC)

[QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-](https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVFf-588ZeVdiefZhe-QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYkEHV5QCF4QnZMFegQIOxAC)

[iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-](https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVFf-588ZeVdiefZhe-QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYkEHV5QCF4QnZMFegQIOxAC)

[TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYk](https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVFf-588ZeVdiefZhe-QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYkEHV5QCF4QnZMFegQIOxAC)

[EHV5QCF4QnZMFegQIOxAC](https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVFf-588ZeVdiefZhe-QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYkEHV5QCF4QnZMFegQIOxAC)

[EHV5QCF4QnZMFegQIOxAC](https://www.google.com/search?q=organizational+imaginaries&oq=organizational+imaginaries&aqs=chrome0.69i59j69i60j69i61l2.3679j0j7&sourceid=chrome&ie=UTF-8&si=AEcPFx71Yi7YECiZ82vRWCw7NKNJEFRJMrsNDcatEtoi_irbHUy2VpTXb0OgaZYPNj7zDCdVFf-588ZeVdiefZhe-QK4nQPLGfMLLO4I49xFE1ivvGdV2JK_QeEwp5mZk3Qmi_RHLwtFxIo7f26Kco2nTQzdFtA2tp6y-iD5SXJWcT4K5_W4js5ypY1-GMi8GlGWF7rFsYusAto70CoBdQctdWWlyU_nwzX-TQqf_dp2gWCAbSKZvBwQc8QGBIJ09Y0tbN_7L1Gw&ictx=1&ved=2ahUKEwiPwcC0yu38AhVrmYkEHV5QCF4QnZMFegQIOxAC)

Quast, L. (2016). *Bulletproof Your Position: 10 Tips For Improving Job Security*. Forbes.

[https://www.forbes.com/sites/lisaquast/2016/02/15/bulletproof-your-position-10-tips-for-improving-](https://www.forbes.com/sites/lisaquast/2016/02/15/bulletproof-your-position-10-tips-for-improving-job-security/)

[job-security/](https://www.forbes.com/sites/lisaquast/2016/02/15/bulletproof-your-position-10-tips-for-improving-job-security/)

- Qureshi, Z. (2020, February 25). Technology and the future of growth: Challenges of change. *Brookings*.
<https://www.brookings.edu/blog/up-front/2020/02/25/technology-and-the-future-of-growth-challenges-of-change/>
- Radosevich, R., & Fox, K. (2023, February 1). *Most Employees Are Experiencing Negative Effects From the Current Economy, Franklin Templeton's Voice of the American Worker Study Finds*.
<https://www.businesswire.com/news/home/20230201005367/en/Most-Employees-Are-Experiencing-Negative-Effects-From-the-Current-Economy-Franklin-Templeton%E2%80%99s-Voice-of-the-American-Worker-Study-Finds>
- Rosala, M. (2021, January 17). *Using "How Might We" Questions to Ideate on the Right Problems*. Nielsen Norman Group. <https://www.nngroup.com/articles/how-might-we-questions/>
- Sareeta. (2020a, June 16). *The Robots are Just Automated Management Tools*. Medium.
<https://points.datasociety.net/the-robots-are-just-automated-management-tools-b9bf28c4434>
- Sareeta. (2020b, June 16). *Why Are Good Jobs Disappearing if Robots Aren't Taking Them?* Medium.
<https://points.datasociety.net/why-are-good-jobs-disappearing-if-robots-arent-taking-them-9f8d4845302a>
- Schneider, N. (2018). *Next, The Internet Cooperative Business Journal—Winter 2018*.
<https://online.fliphtml5.com/caqv/vqrx/>
- Shaw, S., & Cardoso, M. P. (2022, March 16). *Future imaginaries in times of crisis*. The University of Sydney.
<https://www.sydney.edu.au/sydney-environment-institute/news/2022/03/16/future-imaginaries-in-times-of-crisis.html>
- SideHustleStack. (n.d.). *Side Hustle Stack*. Retrieved May 6, 2023, from <https://new.sidehustlestack.co/>
- Singh, J. (2023, March 12). *How blockchain technology revolutionizes digital ownership?* Cointelegraph.
<https://cointelegraph.com/explained/how-blockchain-technology-revolutionizes-digital-ownership>

- SlideSalad. (n.d.). Innovation Ambition Matrix PowerPoint Template Diagrams. *SlideSalad*. Retrieved May 5, 2023, from <https://www.slidesalad.com/product/innovation-ambition-matrix-powerpoint-template-diagrams/>
- Staats, B. (2021, April 30). *7 Keys to Continuous Learning / UNC Kenan-Flagler*. <https://www.kenan-flagler.unc.edu/perspectives/7-keys-to-continuous-learning/>
- Stokes, K. (2023, January 18). *Closing the Skills Gap 2023*. Wiley. <https://universityservices.wiley.com/closing-the-skills-gap-2023/>
- Stuven, M. (2022, December 15). *Building and Sustaining Worker Cooperatives in the US*. The Aspen Institute. <https://www.aspeninstitute.org/blog-posts/building-and-sustaining-worker-cooperatives-in-the-us/>
- Taddeo, T. (2016, May 3). The key to global empowerment is technology. *TechCrunch*. <https://techcrunch.com/2016/05/03/the-keys-to-global-empowerment-is-technology/>
- The Decision Lab. (n.d.). *The COM-B Model for Behavior Change*. The Decision Lab. Retrieved April 8, 2023, from <https://thedecisionlab.com/reference-guide/organizational-behavior/the-com-b-model-for-behavior-change>
- The Employee Ownership Foundation. (n.d.). *Employee-Owned Firms in the COVID-19 Pandemic: How Majority-Owned ESOP & Other Companies Have Responded to the Covid-19 Health and Economic Crises*. CLEO. Retrieved April 3, 2023, from <https://cleo.rutgers.edu/articles/employee-owned-firms-in-the-covid-19-pandemic-how-majority-owned-esop-other-companies-have-responded-to-the-covid-19-health-and-economic-crises/>
- Thorpe, D. (n.d.). *People Love Co-Ops But Don't Really Know What They Are*. Forbes. Retrieved January 29, 2023, from <https://www.forbes.com/sites/devinthorpe/2019/08/16/people-love-co-ops-but-dont-really-know-what-they-are/>
- United Nations. (n.d.). *Inequality – Bridging the Divide*. United Nations; United Nations. Retrieved April 27, 2023, from <https://www.un.org/en/un75/inequality-bridging-divide>

- United States Federation of Worker Cooperatives. (2022, April 18). *The 2021 State of the Sector Report is now available – U.S. Federation of Worker Cooperatives*. <https://www.usworker.coop/blog/2021-state-of-the-sector-is-available-now/>
- Utle, J., & Klebahn, P. (2022, October 25). *Ideaflow by Jeremy Utle, Perry Klebahn: 9780593420584 / PenguinRandomHouse.com: Books*. PenguinRandomhouse.Com.
<https://www.penguinrandomhouse.com/books/688292/ideaflow-by-jeremy-utley-and-perry-klebahn-foreword-by-david-kelley/>
- van't Noordende, S. (2023, January 19). *How working patterns are changing around the world today*. World Economic Forum. <https://www.weforum.org/agenda/2023/01/how-working-patterns-are-changing-around-the-world/>
- van't Noordende, S., & Scarpetta, S. (2022, November 25). *OECD Future of Work—OECD*.
<https://www.oecd.org/future-of-work/#skills-and-learning>
- Variant. (2022). *The Ownership Economy 2022*. Variant. <https://variant.fund/articles/the-ownership-economy-2022/>
- Wang, B. (2022, May 10). *In 2023 Tens of Thousands of Teslabots Will Work in Tesla Factories / NextBigFuture.com*. <https://www.nextbigfuture.com/2022/05/low-volume-mass-production-teslabots-in-2023.html>
- Writing & Ideas*. (n.d.). Variant. Retrieved January 15, 2023, from <https://variant.fund/ideas/>
- Xie, L. (2021, June 15). *Composability is Innovation*. Future. <https://future.com/how-composability-unlocks-crypto-and-everything-else/>
- Zaaijer, C. (2020, December 22). Mastering constant change; implementing learning in everyday business. *The Next Organization*. <https://thenextorganization.com/en/mastering-constant-change-implementing-learning-in-everyday-business/>

Appendices

Appendix A: Ownership Benefits Summary Table

Benefits to Workers	Benefits to Organizations	Source
Improved workplace governance	Aligned incentives	Sareeta, 2020b
More equitable work environment	Higher productivity	Employee Ownership Foundation, 2020
Greater voice in decision-making	Higher growth	Dudley & Rouen, 2021
Improved workplace health and safety	Improved workplace health and safety	Dudley & Rouen, 2021
Lower rates of precarity due to job cuts and outsourcing during downturns		Dudley & Rouen, 2021
Better job retention	Long-term enterprise survival	Organizational Imaginaries, 2021
Higher pay and benefits	Higher wages and net worth	McCormick, 2022
Prototype new models for work		Christensen et al., 2015
Earlier stage ownership for participants in value creation	Boosting user loyalty	The Ownership Economy, 2022
Jumpstarting growth	Creating richer ecosystems of projects and contributors	The Ownership Economy, 2022

Appendix B: Recruitment

A set of insights, desirability, and adoption criteria were informed by a co-creation session with young (under 35) knowledge/creative-sector workers in the Greater Toronto Area, with a self-expressed interest in digital economies and reimagining futures of work. This group was selected based on the following criteria and rationale:

- **Age:** this work focuses on young workers given their increased likelihood to be shaping and defining their work lives. This research defines young as under 35 to ensure a broad spread of early to mid-career life phases and stages.
- **Location:** The workshop was held in person in a Toronto-based research lab. It was imperative that workers be able to attend in person to contribute. As such, only participants within the GTHA (Greater Toronto & Hamilton Area) were recruited.
- **Interest Profile:** Participants were recruited from communities and groups with a demonstrated interest in alternative forms of employment and digital economies. Given the co-creative nature of the session it was important that participants had some prior exposure to the themes covered by the session to ensure valuable outcomes.
- **Institutional Affiliation:** The research lab and thesis project are associated with OCAD University. As such, university-related channels were used for recruitment given the strong correlation with recruiting criteria. Given this, a large number of participants are also affiliated with the institution.

Appendix C: Intake Survey Questions

Are you able to attend an in-person workshop in Toronto on November 24th from 12:30-3:30 pm ET? <input type="checkbox"/>			Are you between the ages of 18-35? <input type="checkbox"/>	What interests you about this workshop? <input type="checkbox"/>
Yes	No			everything
Yes	Yes			super interested in work innovation and also about the workshop design and facilitation
Yes	No			Everything
Yes	Yes			Listening to other people's perspective and reflecting upon my own
Yes	Yes			interested in where the future of work and ownership economy will take us
Yes	Yes			
Yes	Yes			I feel that there are attributes about the discussions that may come up that could translate into my day-to-day work that I could integrate.
Yes	Yes			Dungeons and dragons
Yes	Yes			The growing gap between digital capital/agency/ownership between ordinary internet users and companies/businesses/institutions is concerning and demands attention.
Yes	Yes			I am interested in talking to people about how we think work will change
Yes	Yes			Work ethics

Appendix D: Menti In-Session Survey Inputs & Outputs

What questions do you have coming into this workshop?

10 Answers

Mentimeter

What does work for stake mean?

Are there real life examples of work for stake?

Is work for stake like working for a co-op?

How will this help me own my own labour

Will there be a choice to participate in work for stake or will it become the norm?

Would work at stake solve the "starving artist" archetype?

think through alternative work futures, how to nurture a sustainable future

Will NFTs encourage work for stake?

Will this be another way to lower the amount people must be paid or ask for above and beyond work from the "company" to ensure that success continues

5

What questions do you have coming into this workshop?

10 Answers

Mentimeter

Do you have to drink the koolaid of "believing in the work" in order to participate in this type of order

5

Do you work for a wage?

Mentimeter

17%
Yes

33%
No

50%
Blended



Why do work for a wage? Why not? 5 Answers

Mentimeter

It's resistance

Most accessible option so far

to sustain myself (attempt to)

Reliability

Convention.

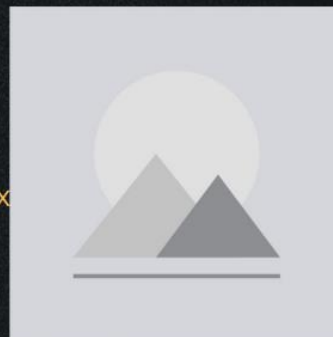


ADD KEYWORDS

Mentimeter

What words or feelings do you associate with working for a stake?

hard decisions
passive income more values based
well-being options
works chance flexibility risk
communal outside of the box
values based ownership
independence opportunity

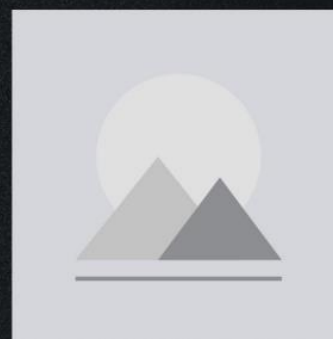


ADD KEYWORDS

Mentimeter

What words or feelings do you associate with working for hire / for a wage?

financial transaction
managed
wage slave modern day slavery
draining disposable claustrophobic
transaction unappreciated exploitative
tool tired exploited
eztraction small buying expertise
tiring control undercompensated



What most excites or scares you about the future of work? Has it changed today?

7 Answers

Mentimeter

Could it still concentrate power for the few?

Will I become redundant? Will the "stake" format be liquid enough for flexibility in how I want to spend it? Will I be able to determine the values of what I am getting stake in?

what happens to those without the hustle / self motivation? what systems are built in to take care of all regardless of contribution? how is it different then the status quo of capitalism?

It's closer to possible for myself than I originally thought. I'm curious to look more into read like examples. It still requires risk and being comfortable with uncertainty

It'll be digitally based

Borderless working (is exciting)

Exciting to imagine an option to be reflected directly in the future that is being created in an ongoing participatory way.



Appendix E: Post-Session Survey Questions & Responses

Two weeks after the session, a follow-up survey comprised of 5 questions was sent out using Microsoft Forms. The goal of the survey was to elicit sustained perceptions around key session concepts and to understand whether there were any shifts from incoming to the workshop, outgoing from the workshop, and 2 weeks post-session. The survey questions posed were as follows:

- ‘Do you believe wage labour is losing its relevancy or fit with modern lifestyles and society? Why?’
- ‘What do you think could replace wage labour in the future?’
- ‘What new possibilities or models do you see for yourself or others?’
- ‘Do you have any difficulties imagining a work for stake future? why or why not?’
- ‘What questions remain since the workshop? What thoughts were you left with?’

Appendix F: User Story Cards

NAME: _____

STORY CARD

AS A	ROLE
I WANT	GOAL / DESIRE
SO THAT	BENEFIT

CONDITIONS & PREFERENCES

Work for State - OCADU MRP Strategic Foresight & Innovation

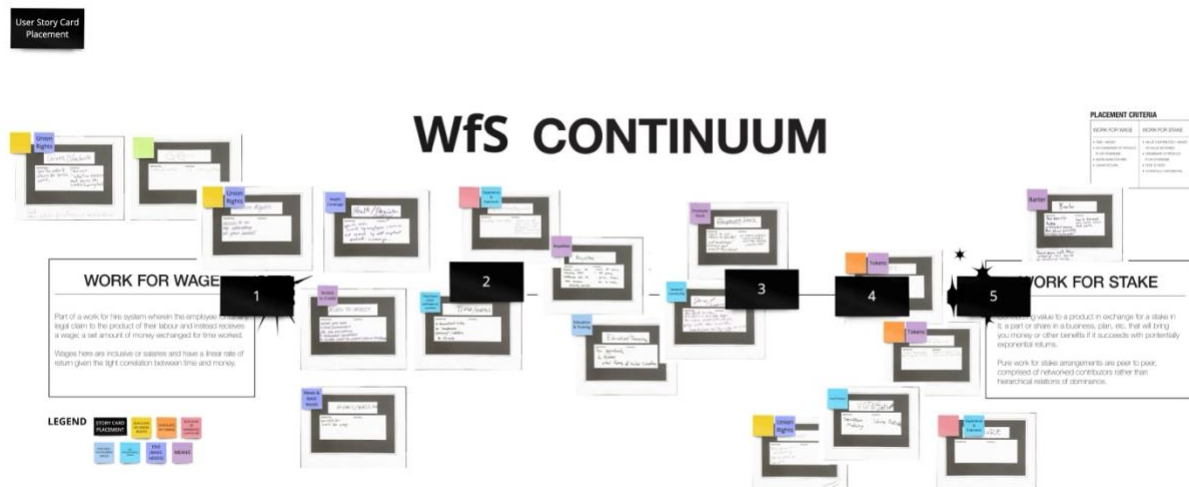
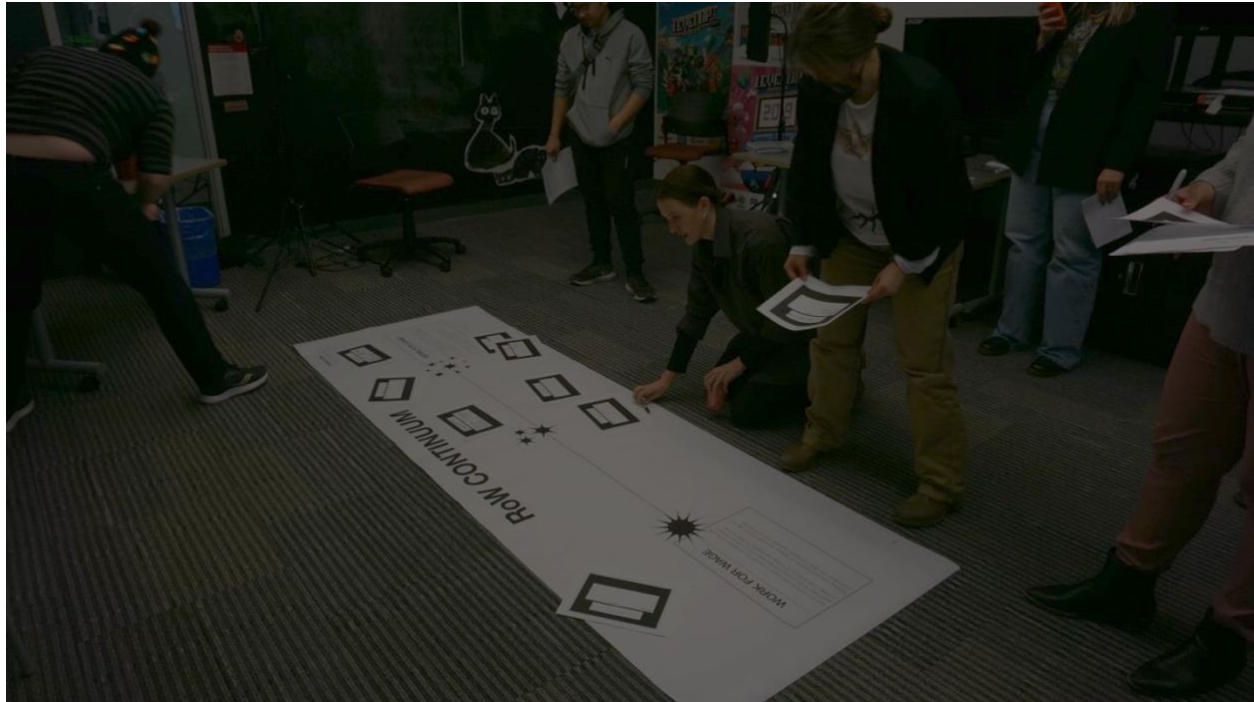
Appendix G: Return on Work Cards

RETURN

DESCRIPTION	RATIONALE

Work for State - CCADU MRP Strategic Foresight & Innovation

Appendix H: WfS Continuum Activity



Appendix I: Archetypes of the Future Activity

THE CHARACTER CARD



NAME:
TITLE / TAGLINE:

APPEARANCE

INTERNAL FACTORS

JOURNEY

PAST	PRESENT	FUTURE
Risk Tolerance 1 2 3	Variety 1 2 3	Status Orientation 1 2 3
Finance Oriented 1 2 3	Mastery 1 2 3	Self-Transcendence 1 2 3
Future Oriented 1 2 3	Autonomy 1 2 3	Work Certainty 1 2 3
Comradery 1 2 3	Other: 1 2 3	Other: 1 2 3

CHARACTER

EXTERNAL FACTORS

VALUE ADD

QUEST What adventure are you in search of?

VALUE What do you bring to the team?

Vibe	Alibi
Treasure / Gear	Powers

FIT / TEAM ROLE

- ☐ Visionary & Jack of All Trades
- ☐ Technologist & Innovator
- ☐ Inventor & Product Manager
- ☐ Developer & Builder
- ☐ Operations & Organization
- ☐ Marketer & Champion
- ☐ Money Manager
- ☐ Sales & Rainmaker
- ☐ Customer & People Person

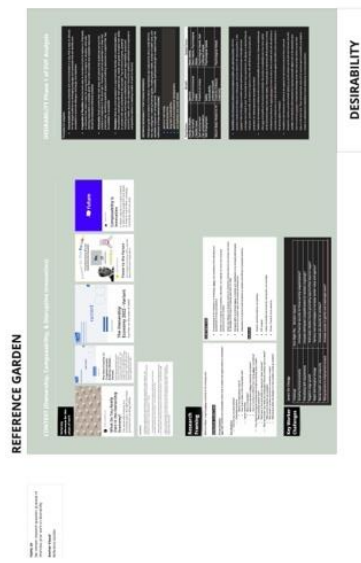


Appendix J: Returns on Work Analysis

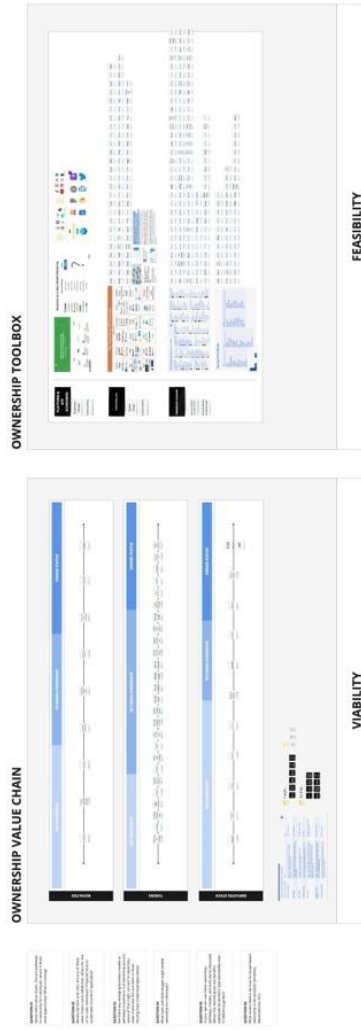
Return on Work	Description	Transferability	Inclusion in Governance	Economic Benefit	Legal Recognition	Return Value	Growth Potential
Education & Training	<i>Skills and knowledge increase value and access to opportunities to be a contributor</i>	L	M	H	L	Skills	Linear
Titles & Status	<i>Form of social capital that increases access to opportunity</i>	L	L	H	M	Status	Exponential
Experience & Exposure	<i>Skills and knowledge increase value and access to opportunities to be a contributor</i>	L	M	H	L	Skills, Network	Exponential
Sense of Community	<i>Belonging translates into community support</i>	L	M	M	L	Network	Exponential
Vote	<i>Voice can be leveraged to redistribute power</i>	L	H	L	M	Voice	Linear
Union Rights	<i>Advocacy generates improved conditions</i>	L	H	L	L	Voice, Network	Exponential
Health Coverage	<i>Access to affordable care enhances health and wellbeing</i>	L	L	M	M	Wellbeing or Survival	Linear
Meals & Basic Needs	<i>Basic sustenance enables sustainable survival</i>	L	H	M	L	Wellbeing or Survival	Linear
Access to Credit	<i>Access to capital in the form of debt</i>	L	L	M	H	Capital	Exponential
Employee Stock	<i>Share in a company that can be sold</i>	H	M	H	H	Capital	Exponential
Barter	<i>1:1 exchange of goods or services</i>	H	H	M	L	Product or Service	Linear
Tokens	<i>Shares in a project or enterprise</i>	H	M/H	H	H	Network, Capital	Exponential
Royalties	<i>Fees paid per unit to holders of patent or authorship rights</i>	M	M/H	H	H	Capital	Exponential

Appendix K: Expert Miro Board

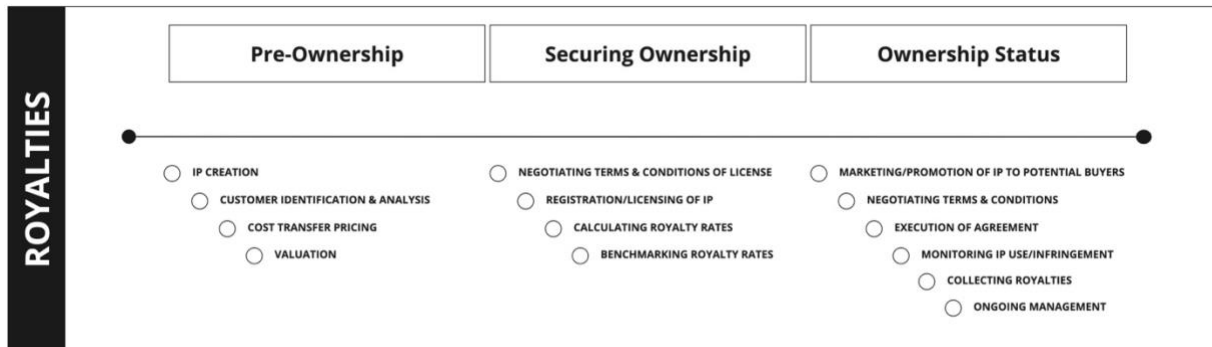
CONTEXT Background & Framing



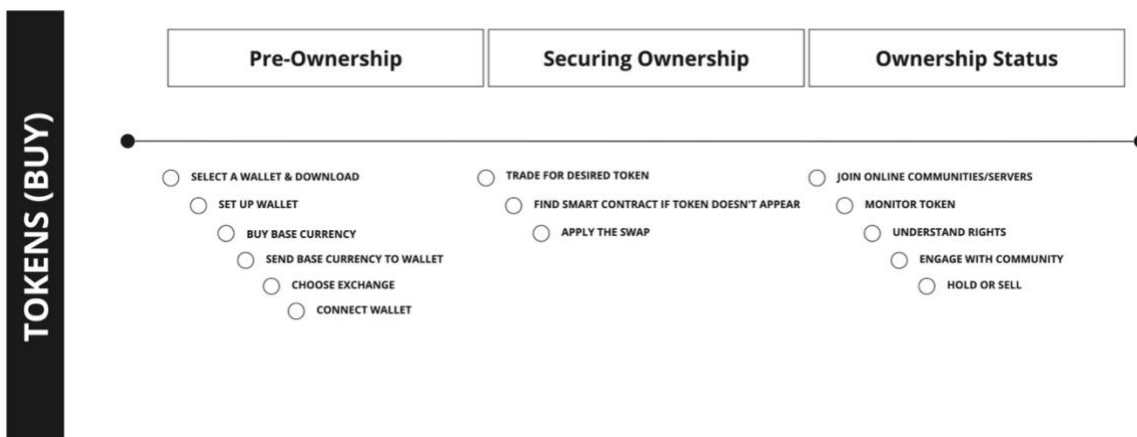
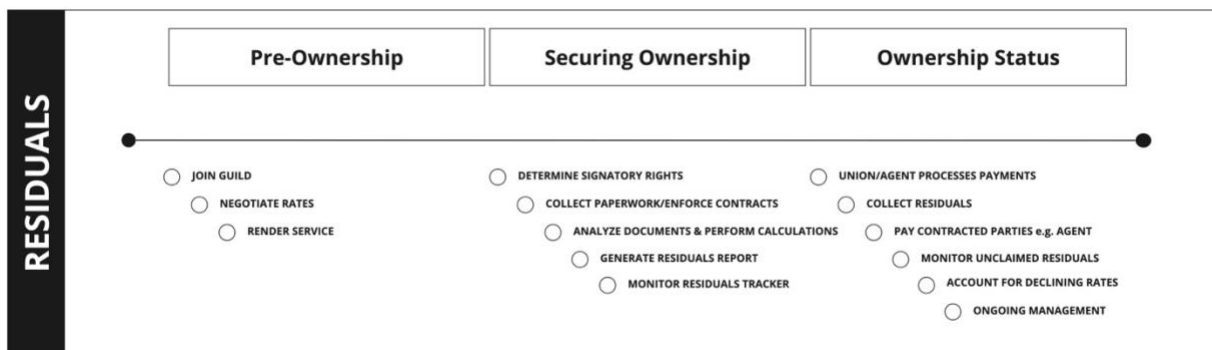
EXPERT Working Sessions/Interviews

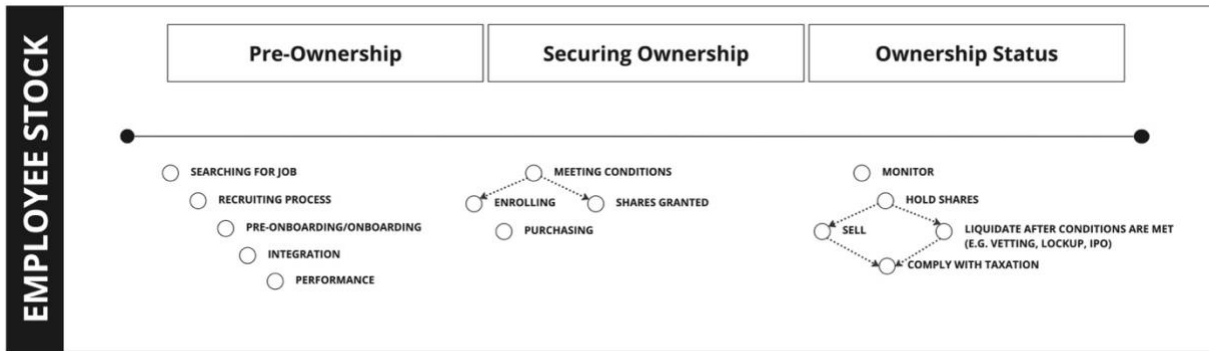


Appendix L: Value Chains



NOTE: All activities listed may not be required depending on the type of IP.





NOTE: Employee stock includes ESOP (employee stock option plan), ESPP (employee stock purchase plan), ESOT (employee share ownership trust), Equity Compensation, and Startup Shares. Differing pathways shown indicate variance based on public or private ownership and selling restrictions

Appendix M: Incentives & Disincentives for Ownership

Bottom-Up

Incentives	Disincentives
Wealth - shared ownership generates profit	Lack of competitive infrastructure
Meaning - a sense of investment and engagement	Convenience and ease of other models
Culture of care - investment in team success	Lack of knowledge about pathways to ownership
Few short-term payouts - ongoing incentives	Misaligned expectations
Responsibility - shared accountability	Risk profile and feasibility for all workers
No guarantee - some degree of risk	

Top-Down

Incentives	Disincentives
Mega tax incentives - increased deductions for profit sharing	Path dependency - tendency to continue with current system
Political influencers - support from influential politicians	Control and stability - reluctance to dilute ownership
Healthier businesses - growth and value from shared ownership	Higher sale profits - larger fees from selling to big corps
Personal mission - implementing ownership for inclusive values	Lack of knowledge about employee ownership structures
Financing succession - solving a problem for employers	

Appendix M: Culture Insights

Culture is also crucial to the success of ownership transitions, and experts suggest that establishing a culture before implementing an ownership transition is critical to success, particularly within complex human enterprises like work. Through expert interviews this work found that norm and expectation setting prior to transitioning to ownership are critical success factors.

New Belgium Brewing provides an example. The company started off with royalties and transitioned to employee stock to affirm and emphasize what was already happening both financially and culturally within the company where they had established a profit-sharing and participatory workplace culture. A few years later the company was acquired by a large conglomerate and the money went to the workers. Rather than the typical fear that permeates an organization during acquisition, it was a time to celebrate.

By contrast, token drops in DAOs (Decentralized autonomous organizations), have struggled in this regard. When popular crypto projects have facilitated a token drop, they've been mobbed by people trying to extract value. With thousands of members in Discord (a VoIP and instant messaging social platform), it is difficult to bound the community. The lesson here is that things get messy when shared ownership is not a natural extension and outgrowth of what is already happening in a community.

Workers looking to transition should consider how they might embed ownership ethos and enabling practices within their existing work arrangements. However, ownership alone is not sufficient for a business to be successful, and education and awareness-building initiatives are necessary to promote the adoption of ownership structures for both top-down and bottom-up actors. Shifting to ownership for workers requires an eyes-wide-open approach to work, where key daily activities are directly linked to the bottom line and key decisions are made transparently. This represents a shift in perspective from "employer as protector or provider" to "employer as partner." The loss of the sense of being taken care of or an illusion of job security can be painful for workers who may have previously bought into this myth. Companies that have successfully implemented ownership programs balance short-term and long-term rewards, optimize company culture for ownership by shifting expectations and norms (ideally proactively), and making clear links between daily activities and company success.