
Pursuing the Innovation Economy: Implications for Startup Labour

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ABSTRACT

This article considers how the UK and Scottish governments' policy push to promote the innovation economy affects labour. It applies a regulatory approach to consider the issue, focusing specifically on the co-ordinated efforts of government, universities and the private sector to promote and support technology startups. Data is drawn from an empirical case study of the digital technology sector in Scotland. My analysis is 2-fold. First, I demonstrate how the performance of this regulation constitutes people as startup employees. It does this by increasing the quantitative supply of labour, but also by shaping the qualitative features of that supply. The practices of government, universities and the private sector give rise to particular norms within the startup community that shape the way that startups operate as well as startup actors' knowledge, values and general sense of how things should be done in the sector. Second, I examine how labour law interacts with these newly situated employees. I focus on the legally structured relation of subordination of employees to employers and argue that the norms the multi-actor regulatory effort promotes within the startup community have direct bearing on how this manifests in the sector.

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‘We are in a race to the top. The UK government, therefore, has an overarching goal of making the UK a *global hub for innovation*, placing innovation at the centre of everything this nation does. Through this we seek to generate disruptive inventions, the most tech-centric industry and government in the world, more ‘unicorns’, and a nation of firms and people that all aspire to innovate.’¹

1. INTRODUCTION

The UK and Scottish governments have, since at least 2017, pursued an economic policy agenda that promotes digital innovation.² Digital technology (tech) startups form a key part of this industrial strategy. Multiple modes of regulation are used to promote and support tech startups. These include taxation incentives, subsidies and procurement.³ Of note, though, in the regulatory landscape are the co-ordinated activities of place-based multi-actor consortiums that combine the efforts of multiple layers of government, universities and the private sector (as well as sometimes the third sector). This form of regulation is an example of the triple helix (or sometimes quadruple helix) model of innovation in action—a term used to capture current thinking about how best to facilitate innovation that is based on interaction between these groups.⁴

Increasingly labour lawyers recognise that understanding the broader regulatory environment shaping the world of work is important to fully grasp issues affecting labour.⁵ This ‘regulatory approach’ extends labour

¹Department for Business, Energy & Industrial Strategy’s (BEIS) *UK Innovation Strategy*, (Crown Copyright, July 2021), p 9, italics in original.

²CanDo Scotland, *Scotland Can Do – Boosting Scotland’s Innovation Performance: An Innovation Action Plan for Scotland* (Scottish Government, January 2017); HM Government, *Industrial Strategy: Building a Britain Fit for the Future* (Crown Copyright, November 2017); HM Government, *UK Research and Development Roadmap* (Crown Copyright, July 2020); BEIS, above n.1; Scottish Government, *Delivering Economic Prosperity: Scotland’s National Strategy for Economic Transformation* (Scottish Government, March 2022).

³For a useful typology of regulatory instruments refer P. Gahan and P. Brosnan, ‘The Repertoires of Labour Market Regulation’, in C. Arup, P. Gahan, J. Howe, R. Johnstone, R. Mitchell, and A. O’Donnell (eds), *Labour Law and Labour Market Regulation* (Sydney: The Federation Press, 2006).

⁴Refer H. Etzkowitz and C. Zhou, *The Triple Helix: University-Industry-Government Innovation in Action* (London and New York: Routledge, 2008) who used this term to describe knowledge production. Now sometimes extended to the quadruple helix model, in which the public via civil society and the media are involved, or even the quintuple helix model, whereby the fifth helix of the natural environment is added.

⁵The work C. Arup, P. Gahan, J. Howe, R. Johnstone, R. Mitchell, and A. O’Donnell (eds), *Labour Law and Labour Market Regulation* (Sydney: The Federation Press, 2006) can be seen as an exemplar of this. See also S. Deakin and F. Wilkinson, *The Law of the Labour Market* (Oxford: OUP, 2005).

law's subject matter for investigation to a broader body of law beyond its traditional concerns with the contract of employment and rules relating to collective bargaining. Key examples include social security law and immigration law, both of which affect the supply side of the labour market.⁶ There is little, if any, consideration of how economic policies to promote the innovation economy may affect labour.⁷ The regulatory approach to understanding labour also recognises that consideration needs to be given beyond law to the myriad forms of regulatory devices in use.⁸ Regulation is construed widely as efforts to shape behaviour.⁹ The approach is one of legal pluralism—taking into account the multiplicity of legal forms and modes of regulation operating in the context of work.¹⁰ These forms or modes may involve actors beyond the state.

In this article, I adopt the regulatory approach to consider how the regulatory effort to pursue the innovation economy and tech startups in particular affects labour. I focus on the co-ordinated activities of government, universities and the private sector. As noted above, this mode of regulation is place based. My geographical focus is Scotland, where I have undertaken an empirical case study of the sector. The digital tech sector in Scotland is thriving. It comprises about 12,050 digital technology firms that have an annual turnover of approximately £8bn.¹¹ Edinburgh was ranked 6th in the UK in 2020 for the level of equity investment deals in tech startups, coming in after London, Oxford, Bristol, Manchester and Cambridge.¹² Glasgow followed ranking 12th.¹³ Scotland provides an important example of the place-based

⁶Deakin and Wilkinson, above n.5.

⁷Labour law scholarship on innovation labour, such as that of A. Hyde, *Working in Silicon Valley: Economic and Legal Analysis of a High-Velocity Labor Market* (London and New York: Routledge, 2003), focuses on traditional labour law, albeit with the analysis revealing its lack of fit in the sector.

⁸Gahan and Brosnan, above n.3; J. Howe, “‘Money and Favours’”: Government Deployment of Public Wealth as an Instrument of Labour Regulation’ in Arup et al (eds), *Labour Law and Labour Market Regulation* (Sydney: Federation Press, 2006).

⁹Arup, Gahan, Howe, Johnstone, Mitchell, and O’Donnell, above n.5.

¹⁰R. Mitchell and C. Arup, ‘Labour Law and Labour Market Regulation’ in Arup et al (eds), *Labour Law and Labour Market Regulation* (Sydney: Federation Press, 2006). For an example of the regulatory approach extending to informal regulation (regulation unconnected to the state) refer: P. Mahy, R. Mitchell, J. Howe and M. A. Tranfaglia, ‘What is Actually Regulating Work? A Study of Restaurants in Indonesia and Australia’ in Diamond Ashiagbor (ed), *Re-Imagining Labour Law for Development: Informal Work in the Global North and South* (Oxford: Hart Publishing, 2019).

¹¹ScotlandIS, *Scottish Technology Industry Survey 2022* (ScotlandIS, 2022).

¹²Tech Nation, *The Future UK Tech Built: Tech Nation Report 2021* (Tech Nation, 2021).

¹³Ibid.

multi-actor nature of much innovation focused regulatory activity, with government input at the UK, Scottish, regional and city based levels, connecting with universities and the private sector.¹⁴ The case study focuses on *early stage* tech startups. These dominate the startup scene in Scotland and have been a key focal point for regulation.¹⁵ By *early stage* I broadly mean startups that employ at least one person other than the founder(s)¹⁶ and up to about 50 employees.

The first substantive part of this article (Section 3) explores the performance of the multi-actor regulatory effort to promote and support these early stage digital tech startups in Scotland. I provide an overview of this, giving particular attention to the material activities undertaken by government, universities and the private sector to encourage the founding of startups and supporting them in the early stages. When I talk of the *performance* of the regulation, what I am trying to do is move away from thinking about regulation (and law more generally) as something that is abstract and external to social life, as if it acts on social life but is separate to it. While much legal scholarship does indeed focus on law's internal operation as something distinct from human actors, I want to highlight another facet of the same law and regulation, namely the way that it is enmeshed in social life.¹⁷

As with other studies applying the regulatory approach, my findings reveal insights into the constitution of the labour market.¹⁸ I outline the activities undertaken to encourage people to seek employment in the Scottish digital technology sector. I also detail how prospective founders are encouraged to start and grow startups, and how the performance of the regulation promotes founders' access to equity investors with whom to share ownership of these companies.¹⁹ Insight is gained into who, and from where, the pool of potential labour and founders are sourced.

¹⁴See, for example, similar efforts taking place in Northern Ireland, refer: Department for the Economy, *A 10X Economy: Northern Ireland's Decade of Innovation* (May 2021) or Cambridge and its 'Silicon Fen', refer: D. Milmo, 'Cambridge is Leading Regional Tech Hub as UK Draws Record Investment' *The Guardian* (London, 20 December 2021).

¹⁵M. Logan, *Scottish Technology Ecosystem Review* (Scottish Government, August 2020), although there has been a recent shift to increase focus on the 'scale-up' level.

¹⁶Throughout the article I will refer to the 'founder' of a startup in the singular for the sake of simplicity. However, it should be noted that many startups are created by a founding team.

¹⁷Here I draw on the ideas of M. Davies, *Law Unlimited: Materialism, Pluralism, and Legal Theory* (Abingdon, Oxon and New York: Routledge, 2017).

¹⁸Mitchell and Arup, above n.10.

¹⁹The term founder refers to the individual(s) who create a startup and who typically, at least in the early stages, both own and manage the company. Together with equity investors they comprise the shareholders of the employing entity. I use the term 'founder' except when

The constitution of people in the labour market, and the pool of people who become founders, though, is not simply a quantitative increase in supply. Rather, it extends to qualitative features of that supply. The performance of the regulation to support the growth of startups has several strands, including promoting a particular model of startup funding, a related startup growth model, a dynamic set of knowledges about technological innovation and business models and certain values relating to technological innovation. The regulatory effort is ongoing and this iteration facilitates the development of norms in the startup community.²⁰ These norms become instituted in the practices of the government, university and private sector actors, they shape the way that new and growing startups operate and they shape employee knowledge, values and general sense of how things are done. In essence, a particular set of norms are encouraged by the practice of regulation to promote and support startups, and these become enmeshed in, and thus become reproduced by, the practices of the startup community itself. It is in this way that I make a claim about how the regulation shapes the qualitative features of labour in the sector.

I then take another step in my analysis of how the performance of the multi-actor regulatory efforts to support the innovation economy affects labour. And this is to consider how labour law might interact with sector actors who participate in this new set of norms. Socio-legal scholarship has demonstrated that legal doctrine plays out in different ways depending on who it affects and the context in which it operates.²¹ The situatedness of people matters.²² The question then becomes: how does the government (and other actors') effort to promote the innovation economy, including its constitution of people as tech startup employees and founders, affect the way that labour law operates in the sector? My response to the question informs the second substantive part of the article (Section 4).

The particular aspect of labour law doctrine I focus on is the legally structured relation of subordination of employees to employers. Subordination facilitates employer extraction of the required labour power from the

referring to the legal category 'employer'. There is a degree of fluidity between the status of employee and founder, with some people in the sector changing status over time. One participant in my study, for example, became a founder immediately after leaving university, then an employee in at least one startup, and then became a founder again (B33, female, founder).

²⁰Davies, above n.17; D. Cooper, 'Against the Current: Social Pathways and the Pursuit of Enduring Change' (2001) 9 *Feminist Legal Studies* 119.

²¹This has been the subject matter of much feminist legal scholarship.

²²D. Haraway, 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective' (1988) 14 *Feminist Studies* 3.

employee. The employer, through either express terms of the contract or terms implied by the common law, has the right to direct an employee. This is often referred to as managerial prerogative. It operates in combination with further terms in the contract of employment, again express or implied by the common law, that require the employee to obey such direction.²³ There are some particular challenges to this hierarchical structuring in the context of the innovation economy, and knowledge work more broadly, which make this an interesting example to consider.

The way in which subordination manifests in practice is highly dependent on both the type of labour that employers seek to extract from employees and the perceived legitimacy by employees of employer requests for such labour.²⁴ For labour involving specific identifiable tasks, the bureaucratic organisation of work can operate to socially support subordination. It does this by assigning individuals specific roles that are defined by the rules of the workplace and which slot into a wider hierarchy, thus encouraging employees to accept that they are subordinate to those above them in the hierarchy.²⁵ Innovation labour, and knowledge work more broadly, in contrast, involves tasks that are difficult to define in advance and require employees to draw on their explicit knowledge, tacit knowledge based on past experiences, imagination and communicative and cooperative capacities.²⁶ Employer requests for such labour can be socially supported by promoting a culture of partnership between employers and employees and by aligning their interests.²⁷ However, the particular labour requested by employers—that involving employee autonomy and independent thought—can be associated with employee challenge to employer authority to instruct employees.²⁸

In my analysis, I demonstrate how the performance of the multi-actor regulation to support tech startups, and most particularly the norms it promotes and operates to embed within the startup community, have direct bearing of the manifestation of subordination in the sector. I delve deeper

²³This is further supported by other employees duties implied into the contract of employment including that of loyalty, fidelity and confidentiality.

²⁴A. Fox, *A Sociology of Work in Industry* (London: Collier-Macmillan, 1971); H. Collins, 'Regulating the Employment Relation for Competitiveness' (2001) 30 *ILJ* 1.

²⁵H. Collins, 'Market Power, Bureaucratic Power, and the Contract of Employment' (1986) 15 *ILJ* 1, see also C. Mummé, 'Property in Labour and the Limits of Contract' in U. Mattei and J. Haskell (eds), *Research Handbook on Political Economy and Law* (Cheltenham and Northampton MA: Edward Elgar, 2015).

²⁶Collins, above n.24; Ikujiro Nonaka and Takeuchi Hirotaka, *The Knowledge-Creating Company* (New York and Oxford: OUP, 1995).

²⁷Collins, above n.24.

²⁸A. Gorz, *Reclaiming Work* (Cambridge and Malden, MA: Polity Press, 1999).

into the norms created by the regulatory practices as they relate to key issues for the relation of subordination—employer legitimacy and the type of labour employers seek to extract from employees. This reveals the influence of the regulatory environment on how employees perceive the legitimacy of founders as representative of employees, the work required in startups and the idea that employer and employee interests can be aligned.

The format of the article is as follows: Section 2, sets out my methodological approach; Section 3 provides an account of the performance of the multi-actor regulatory effort that aims to promote and support tech startups and how this constitutes people as tech startup employees and founders; Section 4 interrogates in greater detail the emerging sector norms as they relate to subordination and considers the implications of these the everyday manifestation of the relation between employers and employees; and, Section 5, concludes.

2. METHODOLOGICAL APPROACH

The article reports on findings from a socio-legal project. The data collection and method comprised four components: 1. a review of the regulatory environment as it related to promoting and supporting tech startups in Scotland; 2. a review of relevant secondary resources to understand ‘startup thinking’, including the latest in international best practice business guides and podcasts on various issues relating to startups by thought leaders influential in the Scottish scene; 3. qualitative interviews; and 4. attendance at sector events.

The empirical data collection took place between January 2021 and July 2022. I conducted 46 interviews with people who worked in tech startups and/or organisations that support the Scottish tech scene. (Refer to [Table 1](#)). More specifically, this comprised 17 people who worked in tech startups as either founders or in other employee roles²⁹ and 29 others whose roles related to: educating future tech founders and employees (university and other tech educating organisations); entrepreneurial arms of universities that supported student startups and staff spinouts; tech accelerators; tech

²⁹The study focuses on employees as opposed to those in different contracting arrangements for work. I have not been able to find any statistics on the types of contractual arrangements for work used in the sector. However, in my interviews it became clear that employers preferred employees. Reasons given included ensuring that any intellectual property rights were owned by the employer and that employees were more committed to the work of the startup.

Table 1. Summary of Study Participants

Role	<i>N</i>	Male	Female
Startup founders	8	6	2
Startup employees	9	5	4
Other roles in wider tech ecosystem	29	16	13
Total	46	27	19

incubators; tech clusters; government agencies; government funded technology sector organisations; non-governmental technology focused organisations; angel investors; venture capital; trade unions; lawyers; tech focused recruitment agents; and tech focused careers advisors. Many of these roles outside of startups themselves can be understood as part of the regulatory context and involve employment in government, universities, industry or third sector organisations.

There was quite a bit of fluidity in participants' job roles. People moved between roles as startup founders, startup employees or other positions in the wider tech ecosystem, and some participants held a number of roles simultaneously. Table 1 notes the primary roles held by participants at the time I spoke with them.

All of the participants, apart from two, were based in Scotland. (The two outside of Scotland comprised one startup employee based in England and one startup founder based in Germany. These participants provide a useful varying geographical perspective to my primarily Scottish focus.)

Interviews were semi-structured and, as given the movement between roles of individuals in the sector noted above, were adapted to participant experiences. However, in general terms:

- i. interviews with founders sought to determine startup stage, including levels of funding, and understand perceptions of startup governance, people management practices, and particular challenges relevant to managing people in the context of startup business practices;
- ii. interviews with tech employees focused on career trajectory, motivations regarding moving into the tech sector or between particular tech roles, experiences and understanding of people management practices in startups, and likes and dislikes regarding working in startups; and
- iii. interviews with people involved in the wider tech ecosystem varied widely but generally sought to help me develop an understanding of how the sector works and how particular actors or organisations contribute to the sector, and strengths of and challenges facing the Scottish tech startup scene.

It should be noted that I did not ask participants directly about subordination and the terms implied into the contract of employment from which it derives. Non-legal actors typically have little knowledge of legal rules.³⁰ Instead, my questions and interview prompts sought to explore features of the employment relationship within startups, identifying, for example, how this was understood, what types of interactions and practices existed between employers and employees, and any tensions that may exist. Moreover, while people may not be aware of detail of the law, they may still have a subjective understanding of law. My own focus is broader than legislation and the common law and extends to regulation of the innovation economy in its various modes. It can be difficult to establish clear conceptual distinctions and understandings of categories such as law and regulation in the context of an interview.³¹

The majority of interviews were recorded and fully transcribed. In cases where participants preferred not to be recorded, I took handwritten notes of the interviews.

I also attended and/or participated in 15 digital technology events and training sessions targeted at those involved in, or thinking of entering, the Scottish and UK tech startup sector. These included: university led training about how to create a startup, how to protect intellectual property in a startup or spin-out, and how equity investment funding works; the launch event of DataFest 2021; Engage, Invest, Exploit 2021; Turing Fest 2021; the Tech Nation Law Tech Sand Box: Showcase 2022; and the Tech Nation Rising Stars 4.0 Showcase.

The four data sources yielded insight into different aspects of how the performance of the regulation to support starts constitutes people as tech startup employees and founders and shapes the model of startup business that emerges. It provides an understanding of the actors and context in which the relation of subordination played out. Analysis and integration of the data sources was as follows. The policy documents were reviewed in order to grasp high level framings and strategy goals and plans for implementation. The research of secondary material to open up 'startup thinking', the interviews, and the sector events, all helped me capture in finer grain detail what the regulatory effort looked like in practice, including the norms and discourse promoted and practices undertaken. In terms of understanding how the regulatory context shaped the manifestation of subordination in

³⁰P. Ewick and S. S. Silbey, *The Common Place of Law* (Chicago and London: University of Chicago Press, 1998); H. Genn, *Paths to Justice* (Oxford and Portland, OR: Hart, 1999).

³¹Mahy, Mitchell, Howe and Azzurra Tranfaglia, above n.10.

tech startups, I drew heavily on my interview data. Here I undertook thematic analysis of aspects of the relationship between employers and employees—including expectations, experiences, good points and tensions, and how these related to various demands placed on startups. I reflected on this interview data and its interaction with my findings relating to the norms, discourse and practices of the regulatory environment.

3. REGULATING FOR INNOVATION AND THE CONSTITUTION OF STARTUP LABOUR

This section provides an overview of the practices of the multi-actor regulatory effort to promote and support startups in Scotland. It reveals the ways that people are constituted as startup employees—both in terms of the quantitative supply of this group, and the qualitative features of that supply via the knowledge, values and general sense of how things are done that is fostered and facilitated by the regulatory practices. It is important to note that this qualitative constitution of employees is not inevitable or, for that matter, neutral. Regulatory actors make claims about drawing on international best practice. However, these are themselves choices. The repeated practices of regulatory actors institute particular norms, which become integrated into the material life of the sector. Tech employees become enmeshed in these norms. They are subject to the norms when at the receiving end of regulatory activities and they, in some form, will reproduce these norms as they engage in sector life.

A. Defining the Project of the Innovation Economy

The *UK Innovation Strategy 2021* defines innovation as ‘the creation and application of new knowledge to improve the world ... [it] turns great ideas into value, prosperity, productivity and wellbeing.’³² At both the UK and Scottish government levels, innovation is conceptualised as the commercialisation of knowledge and ideas and is linked to economic growth and positive values based outcomes.³³

Effecting innovation is understood a multi-actor achievement. The UK government frames it as involving ‘an ecosystem in which companies, public

³²BEIS, above n.1, p 11.

³³See for example: HM Government (2017), above n.2; HM Government (2020) above n. 2; BEIS, above n.1; Scottish Government, above n.2.

research institutions, further education providers, financial institutions, charities, government bodies and many other players interact through the exchange of skills, knowledge and ideas, both domestically and internally.³⁴ Similarly, the Scottish government identifies an important role to be played by regional and city based economic partnerships, which bring together local government, government enterprise agencies, higher and further education, the private sector, and the third sector, to drive economic development.³⁵ There are many examples of this in practice. One is the Edinburgh and South East Scotland City Region Deal, finalised in 2018 and involving £1.3 billion of investment over 15 years by the UK government, Scottish government, six Scottish local authorities, the University of Edinburgh, Herriot Watt University, and other colleges in the region. Part of this deal comprises the Data Driven Entrepreneurship programme delivered by the University of Edinburgh, which I describe in greater detail below. Another example is the Glasgow City Innovation District—a partnership between the Glasgow City Council, the University of Strathclyde, Scottish Enterprise (Scotland’s national development agency), and Entrepreneurial Scotland (a charity that aims to equip talent with the entrepreneurial skills, mindset and connections to create impact).

The Scottish government also notes the importance of clusters to boost innovation—another recognition of it as being a multi-actor achievement.³⁶ Clusters are geographically or sector focused, and are often co-located around universities or innovation centres, and focus on attracting inward investment and talent and stimulating new business growth. Key examples include FinTech Scotland, the lead industry body for fintech startups that describes itself as a ‘strategic enabler’³⁷ of businesses within this sector. The recent UK-wide *Kalifa Review of UK Fintech* registered Fintech Scotland as a model of best practice.³⁸ Codebase is another important cluster in Scotland. It is a private sector industry actor that has recently been awarded a contract with Scottish Government of up to £42million to establish seven new tech scaler hubs across Scotland. Partners in the project include Google for Startups UK, Barclays Eagle Labs and Reforge, a leading San

³⁴BEIS, above n.1, p 17.

³⁵Scottish Government, above n.2.

³⁶Scottish Government, above n.2.

³⁷FinTech Scotland <<https://www.fintechscotland.com>>, accessed 24 September 2022.

³⁸R. Kalifa, *Kalifa Review of UK Fintech* (City of London and Innovate Finance, February 2021).

Francisco-based membership programme teaching the latest in Silicon Valley best practice regarding startup growth.³⁹

B. The Funding Model and Growth Trajectory of Tech Startups

The regulatory effort to promote and support innovation sets out and facilitates a particular funding landscape for early stage startups. This is specified, for example, in the *UK Innovation Strategy*.⁴⁰ Refer to the [Figure 1](#) below. In the very early stages, funding may come through founders' own money or that of their close connections, but in order for the founder to begin to employ people they typically need to seek out grant funding and then equity investment—be this from angel investors (either high-net worth individuals or syndicates of investors) and/or venture capital firms (financial intermediaries investing on behalf of other investors).

Tech startups are hugely risky business ventures,⁴¹ but equity investors are drawn to them because of the potential for outsize returns. The hoped for growth trajectory of a tech startup resembles a hockey stick style curve—a small period of no or negative growth followed by rapid and extremely high levels of growth. The ultimate endpoint is for a company to reach 'unicorn' status, which refers to a £1 billion market valuation within a 10 year period realised via an initial public offering or acquisition by another company.⁴² That this growth is even possible is due in part to the nature of digital technologies themselves. Digital information, which is increasingly freely available, is non-rival and can be reproduced at no, or very low cost, nor is its consumption constrained by geographical distance.⁴³ The regulatory environment seeks to attract equity investors to these high-risk ventures through venture capital schemes offering income and capital gains tax relief.⁴⁴ The UK government is also considering

³⁹Scottish Government, 'Inspiring a New Generation of Tech Entrepreneurs' (*Scottish Government*, 13 July 2022) <<https://www.gov.scot/news/inspiring-a-new-generation-of-tech-entrepreneurs/>> accessed 24 September 2022.

⁴⁰BEIS, above n.1, p 25.

⁴¹Neil Patel, '90% of Startups Fail: Here's What You Need to Know about the 10%' *Forbes* (Jersey City, 16 January 2015).

⁴²Logan, above n.15; Kim-Mai Cutler, 'The Unicorn Hunters' (*Logic*, 1 April 2018).

⁴³E. Brynjolfsson and A. McAfee, *The Second Machine Age* (New York and London: Norton & Company, 2014).

⁴⁴Gov.UK, 'Guidance: Tax Relief for Investors Using Venture Capital Schemes' (Crown Copyright, 7 July 2021) <<https://www.gov.uk/guidance/venture-capital-schemes-tax-relief-for-investors>>, accessed 24 September 2022.

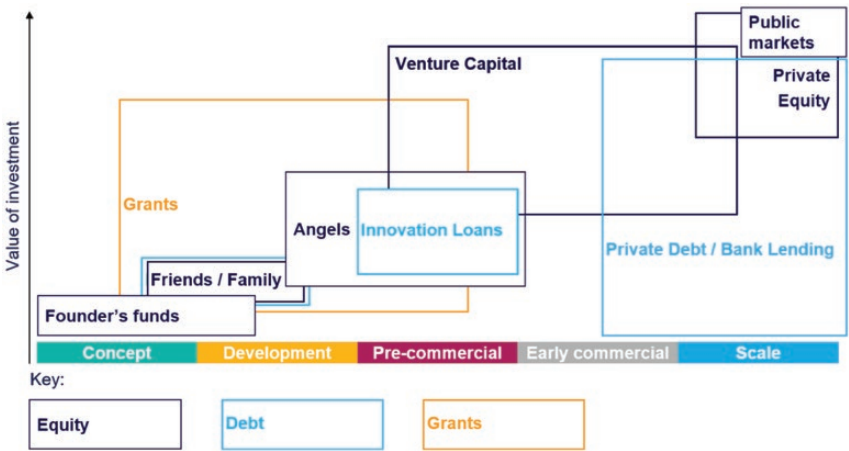


Figure 1: Innovation Funding Landscape.

Source: British Business Bank and Innovate UK, published in the *UK Innovation Strategy*, July 2021

unlocking investment restrictions on pension funds to further facilitate another source of private finance for tech startups.⁴⁵ At the Scottish government level, support is given to the equity investment model by match funding of such finance via Scottish Enterprise.⁴⁶

C. (Potential) Employee and Founder Opportunities, Knowledge and Support

The performance of the regulation to support startups seeks to both increase the supply of employees and founders *and* develop their knowledge of how to perform in startup life. More is needed than increasing the numbers of sector participants with programming, engineering and related skills. A recent review of the digital technology sector in Scotland, the *Scottish Technology Ecosystem Review*, commonly referred to as the ‘Logan Review,’⁴⁷ emphasised the importance of skills in ‘Internet Economy’ business operations, people leadership, technical leadership and technology

⁴⁵BEIS, above n.1.
⁴⁶Scottish Enterprise, ‘Scottish Co-Investment Fund’ <<https://www.scottish-enterprise.com/support-for-businesses/funding-and-grants/accessing-finance-and-attracting-investment/scottish-co-investment-fund>>, accessed 24 September 2022.
⁴⁷Logan, above n.15.

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strategy development.⁴⁸ The ‘Internet Economy’ version of these skills is crucial and captures:⁴⁹

... a certain approach to product development and management. It is characterised by unwavering focus on *speed of iteration* within a business context, on *organisational agility* at all levels of scale, on a relentless pursuit of *product-market fit*, on the application of modern *growth engineering techniques* such as the exploitation of *compounding growth mechanisms*, and on a very high degree of *data-driven experimentation*, to highlight just a few examples.

The Logan Review argued that a new and distinct set of working practices, much of which stem from Silicon Valley,⁵⁰ is needed in order that Scottish tech startups can compete with the best internationally.⁵¹ The Scottish government accepted the recommendations from the Logan Review,⁵² integrating them into Scotland’s digital strategy in 2021⁵³ and economic strategy in 2022.⁵⁴ The international best practice knowledge is integrated into the various educational efforts I detail below.

One way in which the UK government is trying to increase the supply of employees and founders with the appropriate level of knowledge and skills is through immigration. It offers a Global Talent visa in digital technology.⁵⁵ (Its predecessor was the Tier 1 Exceptional Talent visa created in 2014). The Global Talent visa in digital technology is available to technical and business

⁴⁸Logan, above n.15.

⁴⁹Logan, above n.15, p 21, italics in original.

⁵⁰Example of well-known sources of expertise includes: E. Ries, *The Lean Startup: How Constant Innovation Creates Radically Successful Businesses* (London: Penguin, 2011); B. Aulet, *Disciplined Entrepreneurship: 24 Steps to a Successful Startup* (Hoboken, NJ: John Wiley & Sons, 2013); S. Blank, *The Four Steps to the Epiphany: Successful Strategies for Products that Win* (Hoboken, NJ: John Wiley & Sons 2013); K. Beck and others, ‘Manifesto for Agile Software Development’ <<https://agilemanifesto.org>>, accessed 24 September 2022.

⁵¹Logan, above n.15.

⁵²Scottish Government, ‘Accelerating Scotland’s Tech-led Recovery’ (Scottish Government, 24 March 2021) <<https://www.gov.scot/news/accelerating-scotlands-tech-led-recovery/>>, accessed 24 September 2022.

⁵³Scottish Government, ‘A Changing Nation: How Scotland Will Thrive in a Digital World’ (Scottish Government, 11 March 2021).

⁵⁴Scottish Government, above n.2.

⁵⁵Gov.UK, ‘Work in the UK as a Leader in Digital Technology (Global Talent Visa)’ <<https://www.gov.uk/global-talent-digital-technology>>, accessed 24 September 2022; Home Office, ‘Immigration Rules’ (updated 22 August 2022) <<https://www.gov.uk/guidance/immigration-rules/immigration-rules-appendix-global-talent>>, accessed 24 September 2022.

employees and founders who show exceptional talent and promise in tech. The official endorsing body for the Global Talent Visa is Tech Nation.⁵⁶

The multi-actor regulatory effort based in Scotland also acts to increase the supply of sufficiently knowledgeable employees and founders, and it does this by providing opportunity, knowledge and support. Renewed focus has been placed on the educational pipeline from secondary school level. This includes, for example, plans to promote the best available project-based entrepreneurial learning in schools and include partnerships between business and the education system so that young people have access to a network of relationships with high-quality startups and entrepreneurs to inspire and act as role models.⁵⁷ At the college and university level, practices include the further development of an entrepreneurial campus infrastructure, which already exists in some universities, to establish campuses as hotbeds of startup creation.⁵⁸

Another example at the tertiary education level is the University of Edinburgh's Data Driven Entrepreneurship programme—targeting especially students to found startups and staff to found spinouts.⁵⁹ It offers accelerators (fixed-term, cohort based programmes providing education and mentoring) and incubators (the provision of physical space, training, mentorship and opportunities for networking in order to grow and develop a business). In order to facilitate equity funding for these emerging companies, it offers pitch events (events whereby founders are trained for and then 'pitch' the potential of their startup to a forum of angel and venture capital investors in order to secure equity investment), focused training programmes, innovation challenges, seed-funding, and an annual event called the EIE Showcase (Engage, Invest, Exploit Showcase: 'The premier technology investor showcase')⁶⁰ that brings together founders and equity investors in order to match up business propositions and funders. The University of Edinburgh also has its commercialisation service, Edinburgh Innovations,⁶¹ which offers support to students who are considering creating

⁵⁶This is a UK wide 'growth platform', whose core funding is from the UK's Department for Digital, Culture, Media and Sport, refer <<https://technation.io>>, accessed 24 September 2022.

⁵⁷Scottish Government, above n.2.

⁵⁸Scottish Government, above n.2.

⁵⁹University of Edinburgh, 'The University of Edinburgh's Data Driven Entrepreneurship Programme' <<https://edinburghdde.com>>, accessed 24 September 2022.

⁶⁰EIE, 'EIE: Where Innovation Meets Investment', <<https://www.eie-invest.com>>, accessed 24 September 2022.

⁶¹Edinburgh Innovation, 'Making Ideas Work for a Better World', <<https://edinburgh-innovations.ed.ac.uk>>, accessed 24 September 2022.

a startup (again, business training, physical space, advice on intellectual property protections, funding for the startup or support to seek funding and so on) and similar for staff considering creating spinout companies.

Similar support is offered to potential founders outside of the university environment. There is an array of Scottish based private sector organisations, some of which contract with Scottish national and local government, to provide accelerators and business advice support to those thinking about or in the early stages of startup development. Examples include Codebase, One Tech Hub, Elevator, and the Royal Bank of Scotland Accelerator. At the UK wide level, Tech Nation offers a large range of free online resources to introduce potential founders to the world of startups and provides them with training courses, forums for peer-to-peer support, and competitive accelerator programmes for various growth stages and tech-verticals.

This multi-actor regulatory effort seeks to convert ideas into a business by minimising the barriers to entry for a prospective startup founder. Edinburgh Innovations, for example, states that ‘we can help you startup, sustain and develop your entrepreneurial journey ... The service is completely free and you own 100% of your IP.’⁶² If you don’t have a startup idea, courses are offered that help you develop a startup idea: ‘By the end of the session you will have a better understanding of how to view the world through an entrepreneurial lens, and of the support available to you. We will start the night off with pizza and networking to get you ready to ideate.’⁶³ Similarly, Tech Nation, has the following goal: ‘We want to contribute to a future in which anyone with vision and drive can access the skills and support needed to succeed as a game-changing leader.’⁶⁴

D. Connecting Startup Actors to Existing Social Systems

Organisations and individual actors in government, universities and the private sector support startup actors by making connections between them and other relevant actors. Technologies always operate as part of broader systems.⁶⁵ Its use and uptake is embedded in economic, social and political

⁶²Edinburgh Innovations, ‘Get Involved With Or Without, An Idea, No Experienced Needed’, <https://www.ed.ac.uk/edinburgh-innovations/for-students>, accessed 24 September 2022.

⁶³Edinburgh Innovations, ‘Find Your Sustainable Business Idea’, <https://events.irm.ed.ac.uk/Events/Event/7015J00000034SzQAI?s=STU>, accessed 24 September 2022.

⁶⁴Tech Nation, ‘About Us’, <https://technation.io/about-us/>, accessed 24 September 2022.

⁶⁵J. Urry, *What is the Future?* (Cambridge and Malden, MA: Polity, 2016).

life. And successful innovation involves the integration and co-evolution of elements of systems. New technologies may depend upon other businesses and the products produced by them, such as hardware or datasets, or they may augment existing software and thus its producers need to understand how this software operates.

Two examples of regulatory actors making such connections are as follows. Firstly, Fintech Scotland, facilitates connections between fintech startups and the existing banking sector. This helps startups to better understand how their product can usefully augment present banking operations, technical systems and satisfy system requirements such as standards of privacy and risk. Secondly, Tech Nation recently offered a ‘Lawtech Sandbox’ that linked founders of legal focused startups with relevant regulatory bodies.⁶⁶ Startups in regulated sectors need to determine whether products that provide new ways of doing things fall within regulatory bounds or if regulations can be adapted to accommodate new ideas. Tech Nation recognises this stating: ‘Navigating regulations and governance can be time consuming and complicated. That is why we will provide access to regulators throughout the process, for advice, support and assurance at pace.’⁶⁷

E. The Value of Technological Innovation

A very notable practice in the performance of the multi-actor regulatory effort to support startups is the repeated association of technological innovation with a positive valued-driven future. Articulations of this ranged from tech as solving social and or environmental problems, tech as disrupting old and staid ways of doing things and the cutting-edge of tech as being a source of power. These ideas are weaved through the regulatory context as narrative and practice. For example, the UK Government’s *Industrial Strategy* frames innovation as critical to tackle the ‘grand challenges’ facing the nation,⁶⁸ while the *UK Innovation Strategy* has the tagline ‘Leading the future by creating it’⁶⁹ and in its opening pages contains the quote: “‘Some people see innovation as change, but we have never really seen it like that. It’s making

⁶⁶Tech Nation, ‘The Lawtech Sandbox’ <<https://technation.io/lawtech-sandbox/>>, accessed 24 September 2022.

⁶⁷ibid.

⁶⁸HM Government (2017), above n.2.

⁶⁹BEIS, above n.1.

things better” Tim Cook, Apple CEO.⁷⁰ The Scottish government’s digital strategy associates the digital technology sector with good quality jobs and a positive impact on climate change.⁷¹ And, the organisation ‘Scotland Can Do’, launched by the Scottish government and co-created by partners across the public, private and third sectors to support entrepreneurs and innovators, simply sets out at the head of its webpage: ‘It’s time to make history.’⁷²

These aspirations are put into practice in various ways. Tech Nation has a net-zero programme aimed at supporting climate-tech startups, while Scottish Edge, a competition providing monetary awards as prizes for early stage startups and pre-startups, includes social and environmental impact in its judging criteria.⁷³ To be competitive in these opportunities founders need to articulate the startup vision in a way that speaks to these value based outcomes. Multiple examples of how to do this are presented by thought leaders and evangelists of the positive vision of tech. To note just one of these: the choice of keynote speakers at the EIE 2021 event included Sir Ronald Cohen, described as ‘the father of impact investment’, with ‘impact’ here referring to social impact, and Alex Joss, the Lead for Technology and Innovation with the UNFCCC Climate Champions team for COP26.⁷⁴ This repeated linking of technological innovation and values driven outcomes permeates the performance of the regulation that seek to promote and support the sector.

To conclude, what I have hoped to achieve in this section is to provide an overview of the aims and practices of the multi-actor regulatory effort to promote and support innovation. These efforts can be seen to increase the quantitative supply of labour as well as qualitative features on that supply. The regulatory activity facilitates a particular model of startup funding, a dynamic set of knowledges about how best to achieve technological innovation and particular values relating to new technologies and their role in the world. These norms are encouraged in early stage startups and, in turn, become enmeshed in and thus reproduced by the practices of startups actors themselves.

⁷⁰BEIS, above n.1, p 7

⁷¹Scottish Government, above n.53.

⁷²CanDo Scotland, above n.2.

⁷³Scottish Edge, ‘Scottish Edge Assessment Criteria’ <<https://www.scottishedge.com/assessment-criteria>>, accessed 24 September 2022.

⁷⁴EIE, ‘EIE21 Showcases Tech’s Rising Stars’ (EIE, 5 November 2021) <<https://www.eie-invest.com/eie21-showcases-techs-rising-stars/>>, accessed 24 September 2022.

4. SITUATING SUBORDINATION IN EARLY STAGE TECH STARTUPS

I now want to move beyond the generalities of what I've described as the regulatory effort to shape the qualitative features of startup employees to consider what this might mean for how legal doctrine interacts with actors in the sector. My focus is on the legally structured relation of subordination of employees to employers. In this section, I delve more deeply into the norms promoted by the regulatory environment that are relevant to the practice of subordination, namely those relating to the legitimacy of founders as representative of employees, the type of work employers seek to extract from employees, and the potential for alignment of employee interests with those of the employer. My focus is on the norms shaped by the practices of regulatory actors, as opposed to practices within startups themselves. The analysis reveals the particular situatedness of employees in this sector and provides insight into the way in which subordination will manifest.

A. Elevating and Legitimizing the Status of the Founder

The regulatory effort to support startups promotes a new version of a business leader that varies considerably from a more traditional understanding of an employer or employer representative. The activities of government, universities and industry to encourage new founders lower the barrier of entry for those wishing to create a startup. It suggests that all a potential founder needs is an idea, and, with vision and drive, this can be transformed into a successful business. There is support available to assist with access to finance and to provide the requisite business knowledge and connections to support success. The employer that emerges from this—typically represented by the founder—may not have the usual markers that would justify their place at the head of a work hierarchy. He or she may be new to the sector, have limited technical expertise or even have little work experience at all having just emerged from university study. The founder may also be young and will unlikely have much, if any, of their own capital to support the business. This is different to a more traditional understanding of an employer or representative of an employer. That person may have in-depth knowledge of the business, years of experience, previous high level roles in related fields and perhaps ownership of capital.

Beyond this, though, the founder is asking an employee to work in a new company, on an unproven business idea, and to build that business with

them—a process known to be very risky. Tech startups are typically trying to create a new product or service for a new market. This contrasts with many existing businesses that are producing the same products or services for known markets, or making minor innovations or process based improvements to these. Taking on employment in a tech startup requires employees to trust the founder vision and take a leap of faith into the unknown.

This situation raises issues relating to the legitimacy of the founder: does this person, who may have little more than an idea and vision, have legitimate authority to direct employees on a risky path? My analysis suggests that the same regulatory effort that gives rise to these issues, that is, encourages people to become founders who have little or no experience in such a role, also does much to elevate and legitimate the status of the founder.

Regulatory actors ascribe founders a particularly esteemed status in the startup community. The norm is promoted that it is from founders' ideas that startups are created. It is from founders' vision and drive that vast economic success and, indeed, the creation of the future is possible. This narrative is woven through various policy documents and educational efforts aimed at promoting and supporting tech startups. The enormous level of free support given to potential and actual founders attests to their value and worth. There are multiple sector events that celebrate the efforts of founders. These include sector competitions, awards and pitching showcases. I attended sector events where founders were consistently referred to as 'visionary' or, simply, 'pioneers.'⁷⁵ A founder I spoke with observed: 'I think there is definitely a cult of personality around founders and startups. Like I feel like there is ... I try not to be an arsehole, but I do feel like I need in some ways to act like a startup founder when I'm online and things like that.' (B34, founder, female). The cult of the founder is very much in line with the mythology emanating from Silicon Valley where there is a strong celebration of founder 'genius' that enables him or her to achieve outrageous economic success from a simple idea.⁷⁶ In essence, a new version of an employer with legitimate authority to lead in the business world is articulated and socially supported by the various regulatory activity in operation.

What emerges, then, is an elevation and legitimation of tech startup founders on the individual level, but also as a role or path. A particular social

⁷⁵The 'Law Tech Sand Box: Showcase 2022', presented by the Ministry of Justice and Tech Nation and sponsored by Deloitte Legal on 27 January 2022.

⁷⁶For example, the widely celebrated and commonly known founding story of Google, refer Google, 'From the Garage to the Googleplex' <<https://about.google/our-story/>>, accessed 24 September 2022.

meaning is attributed to those who put themselves forward to turn an idea into a new and innovative business—one that is aspirational and aligned with future making and power. While startups are most definitely high risk ventures, the regulatory effort seeks to counter this somewhat by enmeshing these emerging businesses in a wider system of support. In this way, founding a startup becomes both admirable and possible.

B. Normalising and Legitimizing the Demands of Startup Life

Innovation labour is demanding. Creating a product or service that is new and original requires autonomy and independent thought. In Silicon Valley parlance, this requires a shift in thinking away from one to n , to zero to one.⁷⁷ It is important, though, to consider this type of labour in the particular context of startup life that is facilitated by the multi-actor regulatory effort to promote and support startups. This includes working in new companies with few employees, and a funding model based on equity investment that links funds to timeframes during which the company must demonstrate progress towards innovation goals. Such conditions bring with them particular pressures for founders and startup employees. My analysis suggests that the regulatory effort to promote and support startups operates to both facilitate this environment *and* shape startup employees' expectations that this form of innovation context is normal and thus legitimate. In this way the practices of regulatory actors socially support employer requests for extracting labour in these conditions.

The demands of startup environments are such that participants in my study who were founders and/or members of a startup senior management team reported needing employees who could be self-directed, adaptable and proactive in taking responsibility for solving problems that they had not faced before. One participant described what she looks for when recruiting new employees:

... as long as you have the personality that you want to go and learn x, y and z skill, and you will take time to go and learn yourself, and we don't have to hand hold you through that because we don't have the resource to do that. We don't have a lot of training. We don't really have any formal training and processes because we just don't have time to do that at the moment. So it's very much an entrepreneurial

⁷⁷P. Thiel, *Zero to One: Notes on Startups, Or How to Build the Future* (New York: Crown Business, 2014).

attitude, I suppose, that we look for, that: 'I want to succeed, I'm really keen.' (B36, female, employee)

Another study participant, this time a founder of a different startup, spoke of how he had to 'let an employee go' because he did not meet expectations: 'Unfortunately, he wasn't the right person for the job ... it just wasn't the right mentality ... [In a startup] you need to be transparent, you need to have energy, you need to own what you do.' (B32, male, founder). In essence, what is needed in these environments is labour that operates akin to how a founder may operate: being pro-active, self-responsible and constantly seeking solutions to evolving issues.

My investigation into the performance of government, university and the private sector regulatory effort to support startups reveal that various sets of ideas are circulated about how to create a new product or service and how to develop and/or adopt the appropriate business and growth models to support this. These emerge via university courses in entrepreneurship and technical computing skills, as well as these institutions' efforts to encourage startups and spinout companies and via private sector actors who run accelerator and incubators and various forms of mentorship to startup actors. Much of this information is accessible to sector actors independently of the regulatory effort. However, the fact that it is drawn upon and forms the basis of much of the co-ordinated multi-actor regulatory effort to promote and support startups is critical.

Hugely influential ideas include a 'lean' and 'agile' approach to software development.⁷⁸ These approaches emphasise that software development is iterative and requires regular assessment and review from potential consumers, and alterations made in response to this. There is a focus on constant learning and reassessment in order to achieve profitable innovation in the most time effective means possible. Warnings are given against detailed business pre-planning or 'excessive' human resources planning prior to key stages of software innovation such as reaching 'product market fit'. Silicon Valley management gurus have been flown into Scotland by universities and other government funded organisations to reinforce these ideas regarding startup innovation and growth.⁷⁹ The emerging knowledge—instituted in

⁷⁸These have been popularised by the hugely influential Agile Manifesto, as well as a core of class texts. Refer: Beck and others, above n.50; Ries, above n.50; Aulet, above n.50; Blank, above n.50.

⁷⁹For example: Scotland Can Do's invitation for Bill Aulet, author of the classic text *Disciplined Entrepreneurship*, to contribute to its effort to promote entrepreneurship.

the practices of regulatory actors and which influences the norms of sector actors—conceptualises a particular form of startup life. This includes an environment that is demanding, uncertain and requires founders and employees to engage in constant iteration and adaptation. This knowledge will foreshadow and shape expectations of what it is like to work in a startup. It will normalise this type of labour. And, I suggest, it will operate to legitimate employer requests for such labour.

That startup life may be difficult and demanding is likely reinforced by the widespread understanding of the financial risks faced by startups. Ever present in startups is the existential concern that the company will fail. The startup may struggle to sufficiently refine its technology, to achieve ‘product market fit’, meet progress milestones agreed with equity investors, and place in peril chances of funding round success. These pressures form part of the normalised backdrop of ‘how things are done.’ I suggest that as well as providing a motivation for startup employees to work hard, such knowledge further reinforces employee perceptions of the demanding nature of work in a startup. In this context, employer requests for innovation labour under particular conditions may appear normal or, indeed, natural.

C. Aligning Employer and Employee Interests

As noted in Section 1, employer requests for innovation labour can be socially supported by notions of partnership and an alignment of interests between employers and employees. An important way that this can be achieved is through profit sharing. It is commonplace amongst the regulatory actors seeking to support and promote tech startups to encourage founders to utilise employee share options as a means to attract and retain valuable employees. The desired growth model of startups—one that involves extreme growth and an ‘exit’—means that, potentially, the financial rewards for shareholders can be considerable. Many of my study participants who were startup employees did appreciate the opportunity to reap such financial rewards.

We’ve recently done a share options issue, so I want to be here for the next few years because I think ... financially I’ll benefit from that, and I want to be part of it as well when we do press releases, and if we are ever acquired, I can’t wait to be involved in that. It sounds really cheesy, but I’m just really excited. I’m quite passionate about it. (B30, female, employee)

However, I also consider that this association of technological innovation with positive values based outcomes can potentially create new tensions with respect to the relation of subordination in startups. For example, what happens if the claimed positive outcomes of technological innovation fail? This is, of course, something that does happen.⁸¹ However, there is little acknowledgement within the practices of the regulatory effort to promote and support startups that it occurs. Instead a position of technological solutionism is pursued.⁸² At most failure is framed positively as essential ‘learnings’ that are needed on the path to success. For the employee, though, being part of startups that do not reached claimed positive social or environment goals may diminish employee desire to engage with employee instruction.

Another issue relates to the value of the technological innovation being pursued. Employers have the right to choose the nature of their business and instruct employees accordingly. However, if claims are made about the ability of technological innovation as critical to solving social challenges, it must be recognised that the decisions about which problems and how these can be solved are firstly, in the hands of the private sector leaders (not employees, and not the public sector) and, secondly, that the requirement for profit will influence this decision. Founders may come up with an original idea involving technological innovation, but they will generally be dependent on equity investors to bring this to reality. In practice, both of these actors comprise a narrow group in society,⁸³ which may in itself limit the breadth of vision of what can and should be achieved by technological innovation. Moreover, venture capital will only fund startups that have the potential for extreme growth.⁸⁴ Even once initial funding has been secured, the ongoing need for funding may mean that founders feel pressured to deviate from values driven goals in order to focus on growth. This was the situation for one of my participants and in his case he rejected the venture capital pressure as he considered it compromised the startups’ ethical

⁸¹For example, refer I. Braithwaite and others, ‘Automated and partly automated contract tracing: a system review to inform the control of COVID-19’ (2020) 2 *Lancet Digital Health* e607-21.

⁸²K. Yeung, *Dispelling the Digital Enchantment* (Edinburgh, UK: University of Edinburgh Futures Lecture, 2022).

⁸³A. Rose, *The Alison Rose Review of Female Entrepreneurship* (8 March 2019); British Private Equity and Venture Capital (BVCA) and Level 20, *Diversity & Inclusion: Survey 2021* (BVCA and Level 20, 17 March 2021); Women in VC, *The Untapped Potential of Women-led Funds* (Women in VC, October 2020).

⁸⁴Cutler, above n.42.

outlook.⁸⁵ Funding was withdrawn and the startup was sold for a nominal amount to another company. The influence of venture capital on the sector was made clear by another study participant: ‘I think [the sector’s] entirely driven by VC [venture capital] and I think all startup culture is driven by VC but, without being arrogant, I think, you know, startups just don’t realise that the first time round.’ (A3, male, wider tech sector ecosystem).

These potential tensions, which I suggest are important to understanding subordination in startups, must be understood against the backdrop of a growing awareness of the limits and potential harms of technology and the lure of profit at the expense of ethics.⁸⁶ The concerns are wide-ranging and include the racial bias inherent in some artificial intelligence and the environment costs of cryptocurrency. The issue has been key to the burgeoning tech labour movement in the US. There, employees of ‘big tech’, such as Google or Meta, have protested against what they view to be the pursuit of profitable tech projects that have the potential to bring about social harms.⁸⁷ An example of this is the link between Google and a Pentagon initiative aimed at using machine learning technologies to analyse drone footage—known as Project Maven or the Algorithmic Warfare Cross-Functional Team.⁸⁸ Google was contracted to support the development of this technology. However, Google employees reacted negatively to what they perceived to be the weaponisation of machine learning—their protests resulting in the cancellation of the contract. Google’s motto at the time was ‘Don’t be Evil’⁸⁹—hardly socially ambitious, but it does hint at an ethical dimension underpinning its business. It seems that the employees themselves didn’t want to participate in anything they considered evil, despite the financial rewards.

5. CONCLUSION

This has implications for labour in the innovation economy and, as such, is an important site of inquiry for labour law scholars. But how can these

⁸⁵ Participant B29, male, founder.

⁸⁶ See for example C. O’Neill, *Weapons of Math Destruction* (London: Penguin, 2016) and T. S. Mullaney and others (eds), *Your Computer is on Fire* (Cambridge, Massachusetts and London: MIT Press, 2021).

⁸⁷ B. Tarnoff, ‘The Making of the Tech Worker Movement’ (*Logic*, 4 May 2020).

⁸⁸ *Ibid.*

⁸⁹ Google has now been restructured and is called Alphabet Inc. It has dropped the ‘Don’t be evil’ motto and replaced it with ‘Do the right thing’.

implications be explored? In this article I have provided one theoretical approach to doing this.

I adopted the regulatory approach to considering issues affecting labour. My particular focus was on the co-ordinated activities of government, universities and the private sector to promote and support tech startups. The perspective I took on these activities was to frame regulation as a material practice that is embedded in social life. This enabled me to capture, not only how labour in the sector was constituted on a quantitative level, but how a particular set of norms were facilitated by the regulatory activity. These norms, which are entrenched in institutional practices of government, universities and industry, come to be learnt and practiced by startups actors themselves as they engage with the various forms of support available and provided by regulatory actors.

Once the particular situatedness of startup employers and employees is understood, it is possible to consider how labour law may operate in this context. Labour law never operates on a blank slate. Rather, in the case of the innovation economy, it will interact with the social shaping of tech sector actors that results from the multi-actor regulatory activity to promote and support startups. I have attempt to capture some of this complexity by considering how the legally structured relation of subordination is shaped by these efforts as they relate to employer legitimacy and the type of work required of employees. What emerge are new insights into the how the regulatory practices operate to socially support this legally structured relation.