Labour law: the medium and the message

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**Abstract**
*From the contract of employment to the 'gig economy', attention has been fixed on the medium through which personal work relationships have been facilitated. The medium and message in labour law are explored here using the example of the United Kingdom. Fragmentation of and the associated decline in trade unions (the most evident medium in labour law) have been noticeable. Labour law's preoccupation with the medium warrants further consideration with regards to the 'gig economy'. 'Gig' work does not warrant 'game changer' standing because it is a continuation of the long-standing issue of employment status. Still, innovations in information technology prompt further reflection, such as the lure of app-based work. Conversely, algorithms as a tool of workplace management may be themselves 'game changers'. Appealing to the notion of 'scientific management', algorithms ostensibly promise an objective means through which to measure workplace performance.*

**Introduction**
Contemporary challenges in labour law have historical precursors. There is a continuity of message connecting past endeavours with the present circumstances. A tool for detecting these connections is the phrase 'the medium is the message'. It emerged first in Marshall McLuhan's 1964 book *Understanding Media: The Extensions of Man*.[1] McLuhan gained widespread attention for his work and this phrase (along with the idea of the 'Global Village') is perhaps the touchstone. For the present analysis, the exact meaning of McLuhan's seminal notion is not the focus. Instead, McLuhan is utilised as a tool for exploring contemporary personal work relations. He identified the message of any medium as 'the change of scale or pace or pattern that it introduces into human affairs.'[2] Relying on a pioneer in communications theory focuses attention on the use of information technology through which 'gig' work relationships are conducted. The salience of McLuhan's analysis further emerges when considering the theme of game changers in labour law. With the implicit challenge to discern what is a game changer, labour law has a penchant for being diverted by the novelties and overlooking of what that item may be an emblem. The 'gig economy'[3] has been such a diversion. The present study reveals there has been a focus on regulating for the particular. When the test for determining employment status is amended in a discrete manner, attention is diverted from the fact of change and its impact. This investigation engages with how app-based work (a hallmark of the gig economy) shapes and controls the scale and form of association in the personal work relationship.

Another development in information technology, the use of algorithms in the workplace, however, may pose a more profound challenge to personal work relationships. Algorithms,

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[1] Toronto: McGraw Hill, 1964.
[2] *Ibid* 1.
[3] Differing understandings of what this term means range from economic practices to labour arrangements. Here a working definition applies to employment exclusively: 'participants who trade their time and skills through the Internet and online platforms, providing a service to a third party as a form of paid employment': CIPD, *To gig or not to gig: stories from the modern economy* (March 2017), 3.

ostensibly, promise a neutral means for measuring workers' performance. Although a history can be traced to Frederick Taylor's scientific management from the early 20th century,[4] there may be something approaching the game changer status with algorithms. Overarching the discussion are innovations in applicable technologies coupled with the regulatory framework of the General Data Protection Regulation (GDPR). The challenges of algorithms as well as the difficulty in discerning protections for workers under the GDPR mean that these systems may constitute a medium through which the message of scientific management may be actualized.

**Discerning the message from the medium**

In labour law, trade union action stands out as one of the most evident media for workers. Trade unions are the medium through which workers channel efforts to resolve workplace issues and to effect workplace change. It is the conglomerate of worker decision-making; being the majority decision of the membership. The perception of the union as a medium requiring constraint stands out in UK labour law.[5] Unions have been fragmented over a lengthy period and the latest example is the Trade Union Act 2016.[6] These changes are set within the context of the on-going influence of non-standard work on trade unions.[7] The union as medium has dwindled over time and so turning attention to the more individualised means of redress garners greater reflection. For this reason, the introduction of tribunal fees institutes an added challenge. If the effectiveness of trade unions is curbed, then the most viable alternative is through the individual (or group) claim to enforce employment protections. While the original fee scheme introduced was found by the UK Supreme Court to be illegal,[8] this does not mean that fees will be eliminated. And now, the 'gig economy' is perhaps the most overt example for labour law of the message in a medium.

Roger Blanpain wrote in 1999 about globalization and technological innovation 'causing enterprises to explode into networks of teams where work will be done on a project basis, fundamentally altering the employment relationship, the role of the social partners and the like.'[9] As we reflect on the entirety of his work, Blanpain once again foreshadowed contemporary developments. The 'gig economy' represents a network of individuals working on discrete projects.

The term 'gig' refers to the use of wireless communication applications through which work relationships have been formed. In the English language, there is another meaning. It comes from the music industry and refers to a paid performance. This other meaning reveals a further element to the 'gig economy': individuals who are electing to take on work through these app-based opportunities.

The 'gig economy' is not the only influence on forms of work that has enacted a nomenclature of fragmentation. Part-time work, for example, has been a good example. Between 1951 and 1989 the ratio of part-time to full-time workers grew from 1:25 to approximately 1:4.[10] There has also been short-time working as a response to fluctuation in demand. In the UK, steps were taken in order to extend certain protections to this cohort to

[4] Frederick Winslow Taylor, *The Principles of Scientific Management* (Harper Brothers, 1919).
[5] David Mangan, *No Longer. Not Yet. The Promise of Labour Law*, 26 KLJ 129 (2015).
[6] For further commentary, *see* Michael Ford QC and Tonia Novitz, *An absence of fairness … restrictions on industrial action and protest in the Trade Union Bill 2015*, 44 ILJ 522 (2015)
[7] *See* Valerio De Stefano, *Non-Standard Work and Limits on Freedom of Association: A Human Rights-Based Approach* 46 ILJ 185 (2017).
[8] *R (on the application of UNISON) (Appellant) v Lord Chancellor (Respondent)* [2017] UKSC 51.
[9] Roger Blanpain, *European Social Policies: One Bridge Too Short*, 20 Comp. Lab. L. & Pol'y J. 497 (1999).
[10] Lord Wedderburn *The Social Charter in Britain: Labour Law – and Labour Courts?* (Lord Wedderburn (ed), *Employment Rights in Britain and Europe – Selected Papers in Labour Law*, Lawrence & Wishart, 1991), 361.

the effect that short-time working 'assumed a special and technical meaning'.[11] With gig work, further dissection of a job is apparent. These are parts of a job. Consequently, remuneration is apportioned in relation to a job.[12] The query is whether or not there should be (and, if so, to what extent) legislation pertaining to this workforce. The question is not new[13] because gig work adds to the examples of non-standard work.

**The 'gig economy' as a challenge to orthodoxy**

Workers in the 'gig economy'[14] fall within the parameters of non-standard employment as outlined by De Stefano *et al* in this volume: 'Non-standard employment (NSE) is a grouping of different employment arrangements that deviate from standard employment. It includes temporary employment; part-time work; temporary agency work and other multiparty employment relationships; and disguised employment relationships and dependent self-employment.' While terminology remains contested, the 'sharing economy' has developed with support from innovations in information technology where digital intermediaries connect 'self-employed' individuals with clients. This app-based work explains the novel contribution to the traditional area of employment law. It also recalls the persistent challenge to employment status.

Despite criticism of the 'gig economy' as an exploitation of workers, the continued attraction to this form of work remains a matter for further attention. A positive dimension has been advocated that sees individuals avoiding the traditional detractions of workplaces (such as not being watched at work) and enjoying the associated flexibility of this form affords. The difference in message may depend on how one dissects the medium. The argument regarding positives in app-based work may be contingent on how the 'gig economy' is construed. In the UK, the *Taylor Review*[15] noted testimony in support of the gig economy/flexible working arrangements.[16] Offering support for the *Review*'s contention, the Chartered Institute of Personnel and Development (CIPD) has found that a minority of workers (14%) participated in it because they could not find full-time work.[17] This figure appears to be subject to interpretation depending on how work and the 'gig economy' are perceived. If the 'gig economy' is understood as being part of non-standard work, then studies have shown a significant number take on this work because of the absence of full-time, traditional employment opportunities.[18] The CIPD contend the 'gig economy' of particular value to those seeking supplementary income.[19] This view, though, reveals part of

[11] Erika Szyszczak, *Employment Protection and Social Security* (Roy Lewis (ed), *Labour Law in Britain*, Blackwell, 1986), 372.

[12] Usual terms like work or labour are not mentioned: Valerio De Stefano, *The Rise of the Just-in-Time Workforce: On-Demand Work, Crowdwork, and Labor Protection in the Gig-Economy*, 37 Comp. Lab. L. & Pol'y J. 471, 477-478 (2016).

[13] It was posed in 2007 regarding non-standard work in Paul Davies and Mark Freedland, *Towards a Flexible Labour Market* (OUP, 2007), 2.2.3.

[14] Different names have been used such as the sharing economy or the on-demand economy. Miriam Cherry uses 'virtual work' as a collective term: Miriam Cherry, *A Taxonomy of Virtual Work*, 45 GA. L. Rev. 951 (2011).

[15] Matthew Taylor (chair), *Good Work: The Taylor Review of Modern Working Practices* (July 2017).

[16] Though no reference was given in the *Taylor Report*, 'gig' companies have contended that the flexibility of 'gig' work has been part of the appeal to work with them: Work and Pensions Committee, *Self-employment and the gig economy* HC 847 (1 May 2017), para. 12. To this same Committee, company and worker representatives from Uber and Deliveroo asserted that the flexibility was pivotal.

[17] CIPD, *To gig or not to gig: stories from the modern economy* (March 2017).

[18] For example, 30% of temporary employees took on this form of work because no permanent position could be found: Office for National Statistics, *Labour market release*. (ONS, 2016).

[19] The variation in interpretation underscores the diversity in definition of the term 'gig' worker – illustrated further in Full Fact, *Who's working in the 'gig economy'?* (10 July 2017) https://fullfact.org/economy/whos-working-gig-economy/ (accessed 29 Nov. 2017).

the difficulty in nomenclature. While there are different names for the shared economy, these are collective terms which reference work by platforms such as Deliveroo and Airbnb. The latter is more clearly an example of supplementing income because it permits property occupants to rent out their homes for periods. It demonstrates an income generating opportunity that is not necessarily related to taking on work,[20]

Convenience and control are two aspects of the message that can be extracted from app-based work. For the consumer, food delivery from any outlet (as one example) represents a significant convenience. There can also be expediency for individuals (viewing app-based work more generally than just food delivery) seeking work on-demand. The possibility of working from home and the opportunity to supplement income stand out as examples.[21] There is an element of choice that the worker in the traditional workplace does not have. In choosing the specific task, the individual can exert greater control over the execution of the task. This form of 'self-employment' may be enticing to those 'who might feel that the system doesn't accommodate the reality of their working relationships.'[22] Whether this is in fact the case will be discussed in the next section. For now, the point is that in a time of upheaval for the orthodoxies of contemporary life, there is reason to be alert to similar attitudes for change in current personal work relationships.

**Employment status redux**

Another message from the medium of app-based work is that 'gig' work is another aspect of the 'common doctrinal'[23] employment status issue. Engaging with the details of the gig economy provides a means of exploring some of the challenges that lie within this 'novel' concept of work. Arguments surrounding the benefits of 'gig' work tap into the abstract rhetoric that is often associated with labour regulation. There is an imminent importance, then, in mapping this 'digital transformation'[24] because misclassifying 'gig' work poses the potential of deepening the spectrum of precarity that has been a gradual outcome of a neoliberal policy shift.

**The difficulty in discerning who is a 'gig' worker**

Alluded to above, there is a question of nomenclature, such as who are 'gig' workers and how many are there? These are essential questions because the collective term 'gig economy' takes in a range of interpretations that can draw varied conclusions. For example, part of the stated appeal for engaging in 'gig' work is that 'most gig economy workers see their gig economy income as supplementary rather than as their main source of income.' 51% of those in a CIPD survey expressed satisfaction with their income from 'gig' work.[25] The question then is: how many people in the UK are supplementing their income through 'gig' work? It seems this figure cannot be determined with sufficient precision. In the United States, there has been an impression of widespread uptake, but the figures combine both users and suppliers.[26] In the UK, the Labour Force Survey (LFS) identifies the number of individuals in

[20] Airbnb may be an avenue related to low job income. Beyond that, this is not a traditional form of work unless one considers house chores such as cleaning to be work associated with this income. To be clear this is not to suggest that 'house work' is not work. Income from Airbnb (as one example) must not be confused with house work in the associated gender issues.

[21] Janice Berg, *Income Security in the On-Demand Economy: Findings and Policy Lessons from a Survey of Crowdworkers*, 37 Comp. Lab. L. & Pol'y J. 543, 552 (2016).

[22] *Taylor Review*, *supra* n.15 at 7.

[23] Miriam Cherry, *Beyond Misclassification: The Digital Transformation of Work*, 37 Comp. Lab. L. & Pol'y J. 577, 578 (2016).

[24] *Ibid*, 579.

[25] CIPD, *supra* n.17, at 13.

[26] Katy Steinmetz, 'See how big the gig economy really is' (6 January 2016) http://time.com/4169532/sharing-economy-poll/ (accessed 29 Nov. 2017).

employment. The total LFS figure of 33.254 million is comprised of 32.136 million in employment and 1.119 million workers with second jobs.[27] The measurement from Workforce Jobs (WFJ) is the number of jobs, instead of the number of individuals in work. This figure for June 2017 was 34.949 million; leaving a difference between the two surveys of 1.695 million (the LFS being lower). Adjusted for measureable differences, this figure is 1.016 million.[28] Part of the difficulty in assessing the number of workers supplementing their income through 'gig' work is that the numbers are hard to reconcile; let alone determining the total number of 'gig' workers. And so, it is difficult to suggest this figure represents the total number of workers earning a supplemental income from 'gig' work.

Another argument for 'gig' work, used by app-based companies, has been that 'gig' workers are self-employed. Innovations in information technology have developed rapidly and overlap with the time since the Great Recession. UK employment since 2008 has predominantly increased as a result of self-employment: between the first quarter 2008 and the second quarter 2014, employment rose by 1.1 million, with 732,000 being self-employed.[29] Self-employment has recently been estimated at 4.8 million,[30] constituting approximately 15% of the workforce.[31] When at 4.6 million, the Office of National Statistics characterised this figure as indicative of 'strong performance' and as being 'among the defining characteristics of the UK's economic recovery'.[32] The CIPD noted that 14% of those surveyed took on 'gig' work because they could not find full-time employment.[33] This figure may be at the lower end of a range, considering a survey by the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA) which found in the five years leading to 2014 that 27% of 'gig' workers started self-employment in order to escape unemployment.[34] A 2017 RSA survey estimated there were 1.1 million 'gig' workers.[35] It is interesting to see that when gig-based companies assert that its workforce are self-employed, the actual figures of self-employed and gig workers seem to be nebulous. It may be that there is a smaller portion of 'gig' workers if the figure is based upon self-employment. The age range for this cohort tends to be 16-30 years old.[36] And yet, based on Office of National Statistics data, 35-54 years old workers comprise the majority of the self-employed.[37] The growth in self-employment had also been located in two notably different areas, construction (30%) and finance/business (20%). These are not the typical locales for 'gig' work such as Uber or Deliveroo. However, it may be that these roles fit within discrete task oriented platforms such as Taskrabbit. A 2017 RSA survey also noted that about 80% of 'gig' workers worked what (using a traditional concept of a job) equated to part-time hours.[38] It may be that in fragmenting portions of what would have been called a job into discrete tasks, the 'gig economy' has created a larger pool of part-time work. It should be noted, however, that this work may be classified as part-time simply because it is a default term for work falling

[27] ONS, *Reconciliation of estimates of jobs: September 2017* (13 September 2017), 2.
[28] Ibid, 4.
[29] ONS, *Self-Employed Workers in the UK – 2014* (2014).
[30] In contrast, there are about 5.44 million workers in the UK public sector: ONS, *UK Labour Market: November 2017* (15 November 2017), 10.
[31] ONS, *UK Labour Market: October 2017* (18 October 2017); ONS, *UK Labour Market: November 2017* (15 November 2017). The majority of this growth (since 2001) has come from full-time self-employment: ONS, *Trends in self-employment in the UK: 2001 to 2015* (13 July 2016), 44.
[32] ONS, *Trends in self-employment in the UK: 2001 to 2015* (13 July 2016), 2.
[33] CIPD, *To gig or not to gig: stories from the modern economy* (March 2017).
[34] RSA, *Salvation in a start-up?* (2014).
[35] RSA, *Good Gigs: A fairer future for the UK's gig economy* (April 2017), 13.
[36] Full Fact https://fullfact.org/economy/whos-working-gig-economy/ (accessed 29 Nov. 2017).
[37] ONS, *Trends in self-employment in the UK: 2001 to 2015* (13 July 2016): 2.3% amongst those 45-54; 2.5% amongst those 35-44.
[38] RSA, *Good Gigs: A fairer future for the UK's gig economy* (April 2017), 20.

outside of the orthodox job. The question of who is a 'gig' worker and the classification of that work reveals that the 'gig economy' is not so much a job creator as a means of repackaging existing jobs in a manner that 1) deconstructs the orthodox job into discrete tasks and as a result 2) reconfigures the remuneration scheme and relationship between service provider and service user. On the latter point, the importance of the intermediary (the one connecting the service provider and the service user) stands out as pivotal. The intermediary connects the two, but it also has much to gain by this type of arrangement.

**'Gig' work as repackaging jobs**

The lure of greater individual control suggests an absence of subordination that inaccurately describes work in the 'gig economy'. Instead, the pursuit of increased control over work recalls the tests for employment status that started with the 'control test' (itself crumbling soon after adoption in the 19th century UK[39]). With the 'gig economy', contract continues to be the cornerstone; but, with an amendment that the message remains the limitation of a worker's control over her work.

Consider the CEO of Crowdflower's statement: 'Before the Internet, it would be really difficult to find someone, sit them down for ten minutes and get them to work for you, and then fire them after those ten minutes. But with technology, you can actually find them, pay them the tiny amount of money, and then get rid of them when you don't need them anymore.'[40] It is better to be the one seeking work to be done than the one performing the task: the underlying theme of app-based work. This disposition recalls common notions of the employment relationship in which the worker is in most ways subordinate. And so, app-based work may be viewed as a positive for those 'who might feel that the system doesn't accommodate the reality of their working relationships.'[41] 'Gig' work, ostensibly, can place the worker in a position of greater independence, for example, by being free of ineffective company management.

The distinct nature of app-based work reveals some of its nuances. A brief comparison with 'homework' assists in unpacking these aspects. 'Gig' work is closer to the idea of 'homework' or piece work where a worker is paid per item produced. Finkin explored useful examples where the concern was 'only with the price and quality of the product turned in [and not] time and money in the supervision of the work process. As workers were paid by the piece, not by their time, the pace of work need not be monitored, so long as a product of acceptable quality is produced on time.'[42]Gig work renders the job more abstract insofar as it is packaged into tasks which are units of work, individually falling short of a job. A departure from the traditional form of work, there is a readily available argument that since it is digital work then there should be other differences. Recall that this work is composed of discrete tasks; that is, components of a job, but never the entirety. It is not even the equivalent of a part-time job.

Flexibility is the message of the medium for 'gig' companies. The business model depends upon flexibility of employment status: 'by characterizing the relationship as one of

[39] Lord Wedderburn, *Labour Law – From Here to Autonomy? A Franco-British Comparison* (Lord Wedderburn (ed), *Employment Rights in Britain and Europe – Selected Papers in Labour Law*, Lawrence & Wishart, 1991), 110.

[40] Of interest, this quotation was cited in the following: European Parliament, *The Situation of Workers in the Collaborative Economy* (October 2016), 15. http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL_IDA(2016)587316_EN.pdf (accessed 29 Nov. 2017). This same CEO's comments proved deleterious to employment status litigation in the United States; though these comments also yielded further investment: Cherry, *supra* n.23, at 592-593.

[41] *Taylor Review*, *supra* n.15 at 7.

[42] Matthew W. Finkin, *Beclouded Work, Beclouded Workers in Historical Perspective*, 37 Comp. Lab. L. & Pol'y J. 603, 609 (2016) [references omitted].

arms-length dealing with self-employed independent contractors, not employees.'[43] And yet, this is a singular interpretation, ascribed exclusively to profit by a House of Commons committee.[44] Employment law has seen flexible work in different forms for some time. 'Gig economy' work has been found, so far, to be questionable on the analysis of mutual flexibility.[45] Although it may be said that the 'gig worker' has more autonomy, for example over when to work, this is first a question turning on the particular facts of a case. Second where there may be autonomy it is more a matter of degree. Finally, there is a cost to the work autonomy obtained in the 'gig economy': the fragmentation of work coupled with the commensurate fragmentation of remuneration. The larger picture is that 'gig' work contributes to the on-going decline of the standard employment relationship. If it may be said that the development of currency contributed to the 'recoding' labour as a commodity,[46] the 'gig economy' adds another layer of code that splinters standard employment into constituent components.

A further nuance to the concept of the 'gig economy' is that analysis can replicate past constructs. App-based work has tended so far to focus on manual homework. With a platform such as Taskrabbit, cognitive homework is easily perceivable. The difficulty here is that cognitive work has been underdeveloped in labour law in comparison with the orthodoxy of industrial work. Professional work, such as legal services, has been repackaged into discrete tasks undertaken by a global workforce which in itself can drive down the associated workplace costs.

Concerns have been voiced at government level regarding the growth of self-employed workers. The tension is apparent when considering demands on public funds (whether that is during times of low income or at retirement).[47] There is a likelihood of a tipping point at which time the state cannot accommodate the range of demands on it. Furthermore, 'gig' work may, like some non-standard employment such as temporary work,[48] not even be a stepping stone to an improved financial situation. The more recent distress also reveals the absence of effective government action.[49] It has not been unprecedented to regulate this type of work. 'Homework' was the subject of regulation in the United States pursuant to the *Fair Labor Standards Act* of the 1930s which provided the Secretary of Labor with the authority to restrict or prohibit industrial homework to 'prevent the circumvention or evasion of and to safeguard the minimum wage rate prescribed in this chapter, and all existing regulations or orders'.[50] A query to be answered is whether or not the foreseeable calls on public funds of those who do not ameliorate their financial situation through 'gig' work will be sufficient to compel a sustainable government response. On this point, the Work and Pensions Committee and the Business, Energy and Industrial Strategy Committee have published their report *A Framework for Modern Employment*[51] which contains a draft bill. Among other points, the bill requires individuals to be classified as either employees or

[43] *Ibid* 611.
[44] House of Commons Work and Pensions Committee, *Self-employment and the gig economy* HC 847 (1 May 2017), para. 19.
[45] *See Pimlico Plumbers v Smith* [2017] EWCA Civ 51 (permission to appeal to the UKSC granted 9 August 2017) and *Uber v Aslam* [2017] UKEAT 0056_17_1011. Uber has launched an appeal.
[46] A Aneesh, *Global Labor: Algocratic Modes of Organization*, 27 Socio. Theory 347 (2009), 365.
[47] This point has been mooted in House of Commons Work and Pensions Committee, *Self-employment and the gig economy* HC 847 (1 May 2017).
[48] On temporary work see De Stefano *et al* in this volume.
[49] Susan Bisom-Rapp has called this 'the paradoxical role [played by government] in the growth of nonstandard work and increasing precariousness': Susan Bisom-Rapp and Urwana Coiquaud *The Role of the State towards the Grey Zone of Employment: Eyes on Canada and the United States*, 58 *Rev. Inter. Econom.* (2017), para. 5.
[50] Finkin, *supra* n.42, at 607 citing 29 U.S.C. §211(d).
[51] HC 352 (20 November 2017). This report takes into consideration testimony before the committees as well as the *Taylor Review*.

workers, thereby creating a default worker status[52] (placing the burden on employers to establish individuals are self-employed), as well as a premium hourly rate for non-guaranteed work,[53] targeting zero hours contracts.[54]

**Regulation by algorithm**

As presently perceived, algorithms provide all the certainty that numbers ostensibly offer. And so, they could be game changers in labour law. Algorithms in the workplace recall the spirit of Frederick Taylor's 'scientific management', where workers required an unusual amount of cajoling.[55] Algorithms provide the metrics to coax optimal effort.[56] To Taylor's chagrin, algorithms are immune from neither critical analysis nor scrutiny. Engaging with algorithms as potential sources of information, instead of solutions in themselves, can yield a better understanding of technology in the workplace. Moreover, further investigation can contribute to 'a more nuanced anticipation of future developments'[57] as well as assist in avoiding the 'transparency fallacy'.[58] A message to be derived from the medium of algorithms is that the workplace is not devoid of social considerations.[59]

One of the difficulties with algorithms is their design. For example, an algorithm that assigns gendered pronouns according to the individual's title (Mr or Ms) may be set at the male default for titles outside of those two, such as Professor. This discrimination instance is a simple illustration but it is not the focus here. Instead, this discussion centres around design aspects related to perceived objective assessments in regulating the personal work relationship.

The General Data Protection Regulation[60] overarches this topic. Within this framework, employers fall under the definition of 'controller'.[61] The GDPR contemplates 'profiling' algorithms for workplace outputs.[62] Article 22 provides the data subject with a right to avoid a decision based solely on automated processing that carries a legal effect. The distinction targeted here is between automated decision support (where a person would make the final decision) and automated decision-making (where there is no human judgement involved). Art.22 does not apply, though, where the decision arrived at by automated processing 'is necessary for entering into, or performance of, a contract between the data subject and a data controller'. The Article 29 Working Party in its *Opinion 2/2017 on data processing at work*[63] explained that 'performance of a contract and legitimate interests can

[52] Amending the Employment Rights Act 1996.
[53] Amending the National Minimum Wage Act 1998.
[54] The draft bill can be found at https://publications.parliament.uk/pa/cm201719/cmselect/cmworpen/352/35209.htm#_idTextAnchor048 (accessed 29 Nov 2017)
[55] Taylor called 'underworking' the 'greatest evil with which working-people in both America and England were afflicted': Taylor, *supra* n. 4, at 13-14.
[56] Algorithms can be used at any point in the employment process, such as hiring. The focus here is on work performance algorithms. Algorithms may also present costs savings at management level on tasks such as scheduling: Cherry, *supra* n.23, at 596-597.
[57] Daithí Mac Síthigh, *Medium Law* (Routledge, 2017), 16.
[58] Lilian Edwards and Michael Veale, *Slave to the algorithm? Why a 'right to an explanation' is probably not the remedy you are looking for*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2972855, *Duke Law and Technology Review* (2017) (forthcoming) (accessed 29 Nov. 2017).
[59] There is a more pronounced interconnectedness in labour law to facets of human life than may be as evident in other legal disciplines.
[60] Regulation (EU) 2016/679. A useful guide to the GDPR is Rónán Kennedy and Maria Helen Murphy, *Information and Communications Technology Law in Ireland* (Clarus Press, 2017).
[61] GDPR Art, 4(7).
[62] Art.4(4) (profiling).
[63] WP 249 (8 June 2017).

sometimes be invoked, provided the processing is strictly necessary for a legitimate purpose and complies with the principles of proportionality and subsidiarity'.

Employer monitoring of employees serves as an instructive scenario for exploring the GDPR. The GDPR contains an expansive definition of 'processing'.[64] Additionally, lawful processing of data includes that 'necessary for the performance of a contract to which the data subject is party'.[65] When an employer has referenced (for example) a social media policy within the employment contract, it may form part of the parameters for performance of the contract. Consequently, the rights outlined within the GDPR may be attenuated more than at first appearance. Perhaps, there will need to be a distinction made (such as monitoring of content of communications, duration or volume of data traffic).[66] The decision in *Bărbulescu v Romania*[67] illustrates how monitoring of employees intersects with the processing of personal data. At work monitoring may be permissible in order to ensure that workers are performing contractual duties. In order to do so, an employer must put into place certain safeguards.[68] The employee must be 'informed in advance of the extent and nature of his employer's monitoring activities, or of the possibility that the employer might have access to the actual contents of his communications.'[69] With the blending of social and work lives through social media,[70] the challenge of monitoring via algorithms is compounded. Even in the workplace, there is scope for protection of privacy.[71] Any conduct of an employer as a data controller must be proportionate. As such, the ruling anticipates the consent provisions of the GDPR in Article 7.

Employers have relied upon employee consent to the employment contract at the point of hiring to justify a range of subsequent activities that can take place during the life of the employment relationship. The GDPR scrutinises this type of consent. Article 7(2) emphasizes clarity, accessibility and plain language when consent is sought.[72] Based on this provision, an employer would likely need to draw the worker's attention specifically to a distinct part of the contract that deals with special categories of personal data processing. Article 7(4) reiterates the importance of the defining consent to processing of personal data necessary for the performance of a contract. Although the consent provisions endeavour to protect the individual, the GDPR has simultaneously galloped into a long-held debate by creating a potentially impractical expectation. The rapid entrenchment of new technology within the day-to-day of any business complicates obtaining workers' permission. Consent in contract has long been a matter of debate because of the inherent difficulty in determining what constitutes voluntary consent within the context of contemporary circumstances. There may be motivating factors for consenting to a contract which could well be more generally characterised as a coercion of the will[73] and yet still not vitiate consent.[74]

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[64] GDPR, Art.4(2).
[65] GDPR, Art.6(1)(b).
[66] The latter points being noted in Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector.
[67] Application 61496/08 (5 September 2017).
[68] These are enumerated at *ibid* para. 121.
[69] *Ibid* paras. 78, 121.
[70] *Ibid* para. 71.
[71] *Ibid* para. 80.
[72] Article 7 would be read in conjunction with Article 9 (processing of special categories of personal data). In particular Article 9 (1), (2)(a), (b) would be applicable.
[73] Considered in the labour law context in Lord Wedderburn, *Economic Duress*, 45 Mod. L. Rev. 556 (1982).
[74] The common law debate has been defined by the mental state and contextual approaches where the former describes what is going on in an individual's mind and the latter references complete freedom to consent absent any pressure: Stephen A. Smith, *Atiyah's Introduction to the Law of Contract* (OUP, 2006), 275. In response, responsible use has been suggested as an alternative framework: Executive Office of the President of the United

The framework of the GDPR raises a question about the separation between ancillary function and regular, systematic processing. The matter of monitoring based on algorithms that keep track of (for example) the number of times that social media platforms are accessed at work and for how long is problematic. If the demarcation point is data processing that is regular versus irregular, employer monitoring raises some questions. Though the remarks were made in the context of appointing a Data Protection Officer pursuant to Art. 37 of the GDPR, the comments of the Article 29 Working Party touch on the present query. It interpreted 'regular' and 'systematic' (respectively) as follows: 'Ongoing or occurring at particular intervals for a particular period; Recurring or repeated at fixed times; Constantly or periodically taking place'; and 'Occurring according to a system; Pre-arranged, organised or methodical; Taking place as part of a general plan for data collection; Carried out as part of a strategy'.[75] Monitoring workers' activity online would seem to fall within this spectrum. The framework of the GDPR, in this instance, demonstrates the intricate nature of the outlined obligations and protections, thereby warranting some concerted attention in order to map out points of distinction.

**Conclusion**

There has been probing analysis of non-standard employment. This piece emphasises the way labour law becomes diverted by the means instead of the effect. The largest challenge to this, though, is the idea of workplace metrics; that is the search for a scientific way in which to manage the workforce. This is the potential that is seen in algorithms. With algorithms, however, we do need to focus on the medium because therein lies the same predisposition that we can trace to Frederick Winslow Taylor, the presumption of underperformance and the correlative necessity in cajoling mechanisms.

States, 'Big Data: Seizing Opportunities, Preserving Values' (May 2014) https://obamawhitehouse.archives.gov/sites/default/files/docs/big_data_privacy_report_5.1.14_final_print.pdf (accessed 29 Nov. 2017).

[75] Article 29 Working Party, *Guidelines on Data Protection Officers*, WP243 (13 December 2016), 8.