



RSA  
future  
work  
centre

# Four Futures Love, Labour, and Language in 2035

**A collection of short stories** on the future  
of work in an age of radical technologies

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Delia Jarrett-Macauley

Stephen Armstrong

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Foreword by Asheem Singh





THE ORWELL  
FOUNDATION

## About the RSA and The RSA Future Work Centre

The RSA (Royal Society for the encouragement of Arts, Manufactures and Commerce) is a community of changemakers that seeks to unite people and ideas to resolve the biggest challenges of our time. Through our ideas, research and 29,000-strong Fellowship, we seek to realise a society where creative power is distributed, where concentrations of power are confronted, and where creative values are nurtured. The RSA Action and Research Centre combines practical experimentation with rigorous research to achieve these goals.

With the support of our partners, the RSA has launched the RSA Future Work Centre to explore the impact of new technologies on workers. Our goal is to cut through the hype that often plagues this debate and present a more accurate account of how the world of work is changing.

The Future Work Centre is supported by Taylor Wessing, Friends Provident Foundation, Google.org and a philanthropic donation from an RSA Fellow. The arguments and recommendations made in this report are the views of the RSA, not necessarily those of our supporting partners.

## About the Orwell Foundation

The Orwell Foundation exists to perpetuate the achievements of the British writer George Orwell (1903–1950). An independently registered charity, governed by a board of trustees, the Orwell Foundation brings together a wide range of expertise and experience, including distinguished public servants, writers, academics and Orwell scholars.

Whether through the prestigious Orwell Prizes, awarded each year to the books and journalism which best meet Orwell's ambition 'to make political writing into an art', or the growing number of Orwell-related activities which take place under its auspices, from events, lectures and dramatised live-readings to the Orwell Fellowship of writers and journalists, the Foundation aims to use Orwell's work to celebrate honest writing and reporting, uncover hidden lives and confront uncomfortable truths, and, in doing so, to promote Orwell's values of integrity, decency and fidelity to truth.

# Four Futures

## Love, Labour, and Language in 2035

A collection of short stories on the future  
of work in an age of radical technologies

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# Foreword

**ASHEEM SINGH**

**“People were always getting ready for tomorrow. I didn’t believe in that. Tomorrow wasn’t getting ready for them. It didn’t even know they were there.”**

**Cormac McCarthy, *The Road***

There is an aporia at the heart of this short story (or should that be micro-story?) collection that depicts not one, but four futures. What can realistically be said about a world whose present, let alone future, rests on so much uncertainty? What can we do but idly and unsatisfyingly speculate about the hurtling progress of terrifying technologies, byzantine economies, artificial intelligence, self-driving juggernauts, and robots that purport to do and act and think for us?

It is easy today to drift into fatalism in the face of this constant assault. Yet there is an alternative view. While we cannot predict the future (and never believe anyone who claims they can), we can prepare for it. While we cannot tell you what you will be doing or who you will be in fifteen years’ time, we can do our best to give workers of all stripes the tools to face that which comes their way. We can get ready for tomorrow, even though tomorrow neither knows nor cares that we are here.

This is the ground of the RSA’s (Royal Society for the encouragement of Arts, Manufactures and Commerce) research. A piece of our work entitled *The Four Futures of Work* (2019), outlined four possible scenarios for the workers of 2035. Based on a collaboration between global thinkers, futurologists, technologists, employers and ordinary workers we elicited four scenarios that may realistically confront us as we navigate the waters of the beyond. There was a big-tech dominated scenario in which workers rights are fictive. There was a world of empathetic jobs and smiley services where menial tasks are performed almost exclusively by robot. There was a world with an increasingly precise culture of surveillance that is the logical conclusion of the neoliberal model. Finally, there was an exodus from the tech-maelstrom and

a return to the land and the economies of communalism. Big tech, empathy, precision, exodus: these are the four corners of the future.

Between those four corners falls our actual destiny. We can shift that destiny; we can strain and suffer and move it about; we can agitate for a more socially just and egalitarian future for ourselves and our children. That struggle, its possibilities but also the shadows that lie in its absence, are captured in vivid and dizzying technicolour in the stories that follow. We present them here, edited with minimal interference and production, as pure inspirations that emerge from the four futures.

A final note: for 260 years the RSA has been best known for its social action and invention, for its championing of practical reason. In some ways this work represents a departure; a venture beyond practical reason, into the imagination. It presents not statistics nor prototypes nor ideologies, but dispatches from a virtual field. It is in sum, not what we know, but what we feel. Might this be the spur to action we need?

**RSA, June 2019**

# Preface

**JEREMY WIKELEY**

**George Orwell's work was grounded in his own experiences. It was political and independent-minded. But this was all fused in books of startling imaginative power. The Orwell Foundation has recently developed its own mission to promote creative responses to contemporary conditions, from dramatizations of Orwell's classic texts, *1984 Live* and *Orwell's Down and Out: Live*, to the new Orwell Prize for Political Fiction.**

Meanwhile, the power of the imagination to create change is increasingly recognised across a wide range of institutions. So we were delighted when the RSA proposed a collaboration to investigate the future of work. The challenge: how can fiction help us think about the future? What can writers and artists do to respond to the myriad of directions in which politicians, policymakers, thinkers and scientists suggest our society may be heading?

Orwell himself may provide the start of an answer. Orwell's work had prescience. Yet the endurance of a novel like *Nineteen Eighty-Four*, which celebrates its 70-year anniversary this month, lies not in an accurate prediction of the future but in Orwell's ability to make concrete the way in which huge, unrelenting, and seemingly inhuman forces (from technology to the state, from the economy to conflict) shape and are shaped by our individual lives. Orwell asks us to look again, to see what is "in front of your nose". Each of these gripping and varied stories, produced by Orwell Prize winning authors Darren McGarvey and Delia Jarrett-Macauley, Orwell Prize for Political Fiction judge Preti Taneja, and author of *The New Poverty* Stephen Armstrong, peer into the future. They interrogate what Ben Pimlott in the introduction to the 1989 edition of *Nineteen Eighty-Four* describes as the 'continuing present', challenging us to confront the conditions (new, old and yet to be) which dictate the way in which we live and work. Here are four futures. Not prophecies perhaps, but certainly warnings.

**The Orwell Foundation, June 2019**

# The Four Futures of Work

## The thinking that inspired this collection

**RICH MASON**

**In March 2019, the RSA Future Work Centre published *The Four Futures of Work*, the result of months of research into radical and emerging technologies. This report was the Centre's contribution to the hotly-debated question: how will technology shape the future of work?**

Contemporary debate has many shortcomings. Chief among them, an unjustifiable level of certainty in the face of a great number of uncertainties, and an overly narrow focus on automation and job numbers, as if this were the only way technologies could impact work. The questions proliferated: how to make a meaningful contribution which goes beyond the many reductive numbers-based forecasts that have been made? How to craft a vision of the future allowing for the sheer uncertainty we face, able to capture the myriad effects, in addition to automation, that may be wrought on the economy and the world of work? What method might we use to bring it all together?

Pioneered by Shell in the 1970s, *scenario planning* is now widely used in the private and public sector to prepare for a range of eventualities, but rarely in social research. Working with research partner Arup, the FWC applied a 'morphological analysis' method, drawing from desk research and expert sessions to identify the 'critical uncertainties' (the most impactful, most uncertain drivers of change) before combining different outcomes from the range of possibilities to create four distinct, alternate futures for the world of work in 2035.

The resulting Four Futures of Work are introduced individually below as an opening perspective on the story that pertains to that future.

Rich Mason is the co-author 'The Four Futures of Work: Coping with uncertainty in an age of radical technologies'. The original Four Futures of Work report can be accessed online at [www.thersa.org/4futuresofwork](http://www.thersa.org/4futuresofwork)



## THE BIG TECH ECONOMY

Enter a world where technology has developed at a rapid pace, leading to widespread automation. Self-driving buses, vans and bin lorries have reserved lanes in major cities. Versatile robots, capable of complex tasks and human interaction, are ubiquitous in sectors such as hospitality and healthcare. Unemployment and economic insecurity have crept upwards, with people lucky to find 20 hours work a week. But this is tempered by widely felt improvements in living standards as technology lowers the cost of everyday goods, as the quality of public services improves, and as people find new outlets for meaning and purpose in their considerable leisure time. The ultimate winners are Silicon Valley tech giants GAFA (Google, Amazon, Facebook and Apple), who not only complete their capture of the digital economy but enter new sectors, hoovering up the profits from productivity growth and transferring them overseas. The dizzying pace of technological change leaves workers and unions incapable of responding, and well-oiled PR machines and highly visible CSR programmes help the tech giants to stifle dissent.

# Payment Not Accepted

**DARREN MCGARVEY**

---

The queue for heroin was as long as your arm, if your arm was the length of a small coastal town. From the priority-floors of Court View crescent the devastation was safe to survey. The clamour for junk was a daily ordeal, not least for the spectators. And what a sorry sight it was, Leonard thought, sipping from his coffee carton before glancing at the solitary picture on the window ledge. Drawing in a long breath of anticipation, he knew it was now or never.

“Today’s the day.”

He threw on his long, dark coat, grabbed the bag and opened the front door ever so slightly. It was quiet, for once. Confident he wasn’t going to run into the interfering woman who lived through the wall, he darted for the lift. It was a long way down. Leonard’s preferred way of passing time was usually to sort out what was left of his hair in the mirror, but he wasn’t in the mood for the ads. Not today.

Having successfully avoided his hawing neighbour, a challenging day was off to the best possible start. “Ground floor, welcome back to New Glasgow”, said the voice. This voice didn’t just narrate the elevators. Her robotic but reassuring tone reliably accompanied news and weather bulletins, traffic updates, search results and deliveries. Edging out of the lift, Leonard looked both ways, before proceeding into what he wrongly assumed was an empty foyer.

“Leonard!”, boomed the, altogether more startling, voice of the other woman in his life.

“Grace!”, he muttered angrily to himself.

“I have a parcel for you”, she shouted from the other side of the street, “it looks important.”

Given he was already halfway to the taxi and in no mood for fifteen minute

rundown of her health problems, Leonard, rather than receive the package chose instead to wave insincerely. "In a hurry", he shouted back, "got a plane to catch."

As Leonard approached the taxi, the driver-door swung open unexpectedly.

"Careful", he grumbled, almost overwhelmed by agitation.

"Sorry", said the driver, "the car's not behaving."

Leonard could barely conceal his annoyance as he proceeded to the rear of the car.

"I can put your case in the back", offered the driver.

"No", he snapped, "I'll keep it with me."

Leonard opened the door, set his bag carefully on the floor and fastened into his seat as the driver caught his eye in the mirror.

"It's been a while since I was in a taxi with a driver. I'm going to New Glasgow International. Please."

"I know where you're going. Which route would you prefer to take?"

"Whatever's quickest."

"You have to choose the route. Which way would you prefer to go?"

"I've never been to an airport", Leonard replied, as if realising this for the first time himself, "I don't really know. Just take the motorway."

The driver was unamused. Then again, who was these days? It was no longer even possible to travel of your own accord without first having your journey approved by the local authority. The only thing surer than most people being visibly unhappy was the specificity of their particular grievance, and a taxi-driver's gripe was never hard to guess. Not for Leonard.

"Don't worry, I won't complain about the fare."

"Thank you", smiled the driver, before setting off.

Leonard reached in his jacket pocket and took out an old, crumpled photograph, hoping to admire it before being interrupted.

"You hear about this cyber-attack?", the driver asked.

"No."

"They're calling it Chinese Flu", he proclaimed.

"Calling what?"

"The cyber-attack, look", he said gesturing out the window, "don't you think the roads are quiet today?"

A faint flash of concern briefly animated Leonard's otherwise disinterested face.

"Not so quiet that we're getting to the airport any faster though eh?", he sneered.

"This is the route you selected", said the driver before catching Leonard's eye in the mirror a second time, "you said you wouldn't complain."

"I said I wouldn't complain about the fare."

The driver turned on the news. Not even an alleged Chinese cyber-attack was enough to stop Scottish independence from being the top story.

"The Prime Minister is holding firm on border skirmishes between Scottish and British nationalists which have so far left 47 dead and hundreds injured. Speaking exclusively to Government Issue News, she reasserted that violence will not be tolerated."

Despite the obvious inconvenience at the time, no one was happier than Leonard when the entire Scottish population was relocated to the central belt in the interests of national security. Partitioned from the rest of the UK and renamed New Glasgow, the sprawling urban expanse soon became the largest producer of crime, ill health and addiction in the Western hemisphere. But for Leonard, it also meant that Glasgow, where he was born and had lived all his life, finally triumphed in the bitter rivalry between Scotland's two most overrated cities.

The driver tried to catch Leonard's eye a third-time, but couldn't compete with the subject in the photograph, whatever it was.

“You need drugs?”, he asked, matter-of-factly.

Leonard’s eyes rolled back so hard it startled the driver slightly.

“What you got?”, replied Leonard.

“Everything but heroin.”

Leonard glanced out the window, at New Glasgow Tower, rising into a cloudless morning sky.

“And to think they told us legalising them would lead to a gradual reduction in demand. You and I might be the only people in this country that aren’t jaggging up right now. Well us and my neighbour.”

Leonard’s eyes rolled skyward, like a reluctant gaze drawn curiously to a facial scar. The delivery drones hummed overhead, moving like birds between buildings.

“So you looking for anything?”, asked the driver.

Leonard sighed, and rolled the window down.

“Do you know the people who live in the permanent shadow of that tower are 20 times likelier to be looking for heroin right now than the people who live in it?”

The driver paused for a moment, as a flock grazed the roof of the car as it headed in the other direction, taking its unpleasant racket with it.

“If people don’t like where they live they should clean it up or they should move.”

“You clearly haven’t tried heroin, son.”

Leonard took shite from no cunt. Not the rich, not the poor. The academics got it as tight as the simpletons. Most people, irrespective of their social standing, could get it round and up them as far as Leonard was concerned. You can therefore imagine how happy Leonard was to arrive at New Glasgow International to discover precisely no one was there.

“Told you it was quiet”, said the driver, by this time visibly anxious, though of what, Leonard could not infer.

“And if it wasn’t, you’d be moaning about the traffic”, Leonard replied, masking his own swelling sense of concern, before stepping out of the car and onto an immaculate concourse.

“The payment hasn’t gone through”, said the driver just as Leonard was about to close the door and get on with his life.

“Must be that Chinese cyber-attack”, he smiled, “I’m sure it’ll sort itself out in due course.”

Leonard slammed the door and marched quickly into the terminal not expecting to find it was completely dead. No travellers. No staff. Not even the sound of an aircraft.

“Hello. Where is everybody?”

“New Glasgow International is the world’s first fully unstaffed airport experience”, replied the voice, “please make your way to self-check-in for processing.”

“Self-check-in? I thought that was what I did on the app?”

“New Glasgow International is the world’s first fully unstaffed airport experience.”

“The day I can just walk into an airport and get on a flight without all this fanning about is the experience I’m after, to be honest.”

“Would you like to upgrade to priority?”

“Yes”, Leonard sighed.

“Amount due”, came the eerily intuitive response.

Leonard lifted his wrist to elbow height.

“Payment method not accepted.”

Puzzled, he tried again.

“Payment method not accepted.”

“Not accepted? What other payment methods are there?”

It was typical that when Leonard had somewhere to be by a certain time, the most sophisticated system of automation ever devised decided to fail. He tried again.

“Payment method not accepted.”

“Ok never mind priority. I'll sit in the normal, shitty, uncomfortable seat I've already paid for.”

“Amount due. Payment method not accepted.”

Leonard glanced at his watch, aware that any delay whatsoever would scarpers his plans.

“Aye ok. Not accepted. I hear you. Let me grab a seat over here and figure this out.”

He crossed the terminal, the soles of his obnoxiously embroidered brogues squeaking on the pristine glass floor, to a throwback chip-shop in the empty eatery. At each of the four small, square tables the service screens, fixed firmly to each seating position, twisted to face each other like flowers contorting towards a diminishing light. He sat at the table closest and gently pulled the tablet round to face him. There didn't appear to be any problems with the interface. It was the usual mix of ads and intrusive prompts to upgrade. Leonard browsed the menu, looking for something cheap and simple to attempt a transaction, but having caught a glimpse of the image of deep-fried food, he became suddenly and irrationally invested in the idea of a sausage-supper with two pickled onions and a lot of salt and vinegar. Each item on the menu came complete with an estimated serving time.

“15 minutes for chips?”, he balked, “is this not a chip-shop?”

“Salads are freshly prepared in moments, if you would prefer?”, the voice replied.

“I'll wait.”

“Please take a seat”, said the voice, as did the corresponding notifications on his phone, his watch and his glasses. So far, so good. The kitchen began preparing the food as Leonard glanced at his screen momentarily, scrolling mindlessly through the feeds, which he had wisely set to “highly agreeable” the previous night.

“Millions face prosecution as retroactive ‘rape porn’ law comes into effect.”

“Heroin rationing continues as border violence escalates.”

“Tenth journalist suicide in as many weeks prompts probe.”

“Prime Minister Black announces talks with Scottish Republican Army.”

Leonard continued scrolling. Nothing about the cyber-attack. Strange. He refreshed the page. Still nothing. It was then he realised his feeds were frozen and hadn't refreshed for 12 hours. Then, the kitchen fell silent. Leonard, beginning to panic, observed the stillness around him. The airport was the perfect temperature, with the optimum amount of natural light that promoted feelings of wellness and security, yet he knew something was very wrong. He reached in his pocket for a reassuring glance at the photograph.

The terminal entrance closest to Leonard clattered suddenly, startling him.

“Hello! Leonard is that you?”

Leonard scrunched his eyes through his glasses, “Grace? What the fuck are you doing here?”

“I brought your parcel.”

“My parcel? All the way here? How did you know I was going to the airport?”

“Your last words were literally ‘got a plane to catch!’”

“It’s a long way to travel just to give me a delivery, Grace. This could have waited.”

“Well you say that”, she said, holding up the brown-paper parcel. On the bottom, the words “Open now. Urgent.”, were hand-written, it would appear, by a furious person.

Confused as he was curious, Leonard took the package from Grace and impatiently tore it open, revealing another parcel with a note attached to it.

“It’s not China. The border isn’t closing at 8, its closing now. All transport is down. Someone is coming for you.”



The faint sound of a small-aircraft could be heard in the distance, rising in volume as it drew closer.

“Who do you think it’s from?”

“Your guess is as good as mine.”

“So you’re heading south?”

“And what if I am?”

“I’ve heard they aren’t letting everyone through. Only the 55 per cent. You’ll need to provide evidence of how you voted.”

“I’ll worry about that if I ever get there, Grace.”

Leonard paused.

“Wait a minute. You still think I voted ‘No’, don’t you?”

“Didn’t say that.”

“You’re going to use this potentially apocalyptic scenario to try and deduce how I voted in the referendum you nosey old cow?”

“Look it was just instinct in the moment. I like to know what’s going on round-about me.”

The aircraft roared overhead, casting a temporary shadow over them both, before doubling-back and beginning a rapid descent onto the abandoned taxi-rank at the front of the terminal.

Leonard turned back to Grace, “How will you get home?”

“Same way I got here”, she replied, holding up her metro ticket, “replacement bus service.”

Leonard picked up his bag and walked towards the terminal entrance, with Grace marching in behind him. The aircraft door swung open. Out stepped a tall, muscular woman in sunglasses. Leonard waved to acknowledge her, before turning back to Grace.

"I was Yes the first time", he shouted, to be heard over the propellers, "but I'll keep how I voted in the last one to myself, thanks."

The pilot waved back at them both, "You going to the border?"

"I am", Leonard replied, "or at least I was, but I think the airport has crashed."

"I can take you now."

"Ok", he said, "one moment."

The pilot jumped back into the cockpit. Leonard picked up his bag.

"Thanks for bringing this, Grace."

"What are neighbours for? Stupid drone thought I was you this morning."

"If these things could think, neither of us would be standing here right now."

Leonard approached the helicopter door, gesturing for the pilot to roll down the window.

"How much?", he asked.

"£500", she replied, "cash only."

"Cash only?"

"Yes. Cash only. I was told this wasn't going to be a problem."

"Well it wouldn't have been if this was twenty-years ago. Today, however, I don't have any cash. Nobody has any cash. There's one cash machine in the whole country and nobody ever uses it."

"Where do you think everybody is right now?"

Leonard and Grace turned to each other.

"What about the other package?", said Grace, pointing at the remaining unopened parcel in Leonard's hand.

He dropped his bag before tearing the packaging open slowly. A peculiar, familiar smell seemed to fill the air around him briefly before being blown in the propeller gust.

“Well would you look at that, Grace”, said Leonard, revealing a thick wad of paper money, wrapped tightly in a clutch of elastic bands.

Leonard counted out the fare and handed the rest to Grace.

“Don’t be daft, Leonard.”

“What are neighbours for?”, he smiled.

“What am I going to do with real money, fuck sake?”

Leonard threw his bag in the back of the helicopter, and hauled himself into the seat.

“Ever tried smack?”

## THE EMPATHY ECONOMY

Behold, a world of responsible stewardship. In this scenario there are technological breakthroughs comparable to those in the Big Tech Economy, but public attitudes sour as the risks become more apparent. Tech companies decide to self-regulate. Automation is contained as businesses work with unions to adopt tech on mutually beneficial terms. Rather than squeeze, pressure and scrutinise workers, technology is applied to augment their capabilities, from virtual reality being used by retail workers to roleplay customer interactions, to personal trainers using wearables to create bespoke training regimes for their clients. Workers see improvements in living standards as the gains from productivity growth are mostly retained in the UK. Disposable income then flows into hi-touch sectors such as care and education that are most resistant to automation. But this work is emotionally demanding, with people required to manage their own emotions in service of boosting the feelings of others.

# EMPAT

# Henri's Story

**DELIA JARRETT-MACAULEY**

1.

Henri was about to leave for the office when the thick envelope thumped the mat. Henri ripped it open. **This is not your result** appeared on the top of the printout as if intimating that a personal question should have been asked. Their group was nearly done with Level 5. In sessions you could hear the sighs, the quickened shuffle towards the door as it reached closing time. Henri was 34 that summer, but the others were younger, and they wanted to submit to Level 6 testing, which charted the higher traits of empathy; those succeeding at Level 6 were well advised not to accept any full-time employment lest it consume them. Henri wasn't sure about life without a job. Coming from a family of carers and probation officers, Henri's work as a sub-regional Senior Coordinator of Empathy Persons (G3) was regarded as a triumph of, and justification for, the old values: following in your elders' footsteps.

2.

On the steps of Henri's building, the usual group of young people sat smoking weed. Occasionally, they would wander into the offices, for a worker-chat, and quite frequently, in the evenings when the weed had filled their spirits with charity, they were known to hang around the wealthier areas of town, on the lookout for people with barely perceptible needs. Generous to a fault!

Today, Henri was approving G1's budgets. Back to Basics was just one tag of their larger mission. Frequently misunderstood by those who were stuck in the 20th century, it covered multi-group activities on Feeling and Togetherness. The site held images portraying business tycoons holding hands with community leaders and games on their competing logos and chants. The Back to Basics courses persisted, Henri believed, mainly because people liked to spend entire days in unfamiliar locations sitting around in groups talking and pretending to learn something new from a facilitator, or from one another.

The air conditioning was humming. Henri's index finger grazed the spiky cactus plant. It was mid-August, wasn't it? Time for travel.

With a click, Henri okayed the £50K residential budget, and sighed.

“A man needs to see you for a touch?” Anna’s palms were too close to his face as she waved him back to the present.

“Who? Where?”

Anna did not respond but she stepped back and Henri’s eyes lighted on Tom, creator of the ‘nurse catch nurse’ scheme. Tom was raising his hand to his forehead, a charming pretence of a salute, and as he approached in his sand-coloured jeans and white Aertex shirt, Henri felt proud. *If someone like Tom is coming to see me for a touch, surely I would sail through Level 6.*

Henri smiled. Who wouldn’t be happy to spend time with such a gentle and kindly man? Tom’s ‘nurse catch nurse’ scheme, the first old case file Henri had handled, was an invention devised for the care of terminal patients. Every one of Tom’s friends had warned him about exposing his ideas to the health trust, and he had defied them. And the health trust had made a fool of him, cheated him, selling ‘nurse catch nurse’ to Global Health Inc. for a mint.

They were sitting together now, Tom and Henri. Mugs of tea and a chocolate brownie to share.

“How you doing?”

“Okay. You?”

Henri nodded.

“The thing is... The things is, I’m going away.”

“Where to?”

“Abroad. Another country.”

“Which one? The world’s the same over.”

“Not sure. I’m on the 1700 to Amsterdam, I’ll stay there for a while, and then see.”

At that moment, Henri spotted the stickered rucksack Tom had left at the entrance.

“Walk with me to the station?”

### 3.

There was a hockey match on the Common outside the Academy and they could hear the students, yelling, ‘Hey,’ and, ‘Pass it,’ to one another. They heard the whack of the ball as it was driven into the air and the clatter of boots charging over concrete. Henri imagined the conversation they could be having:

*Wait a little longer.*

*I can’t.*

*Think about it.  
I have thought about it.*

By sounds of the shouting, they both knew the hockey ball had hit someone, probably a pedestrian unaware of the dangers.

"They've assaulted me!" cried the man seizing the floppy pink hat that was skidding out of his reach. He pressed it firmly on his head. One of them, thought Henri. The Pink Hats were always claiming they'd been hurt. It was like they had complaining as a rite of passage, these country people seeking work in town.

"Really hurt?" The hockey captains bent down to examine the bump. "Is it bad?"

"Bad enough!" said the bloke on the ground, bundles of herbs and joss sticks protruding from his bag.

Henri and Tom moved on.

#### 4.

Henri finally made it to the theatre at 19.35. A Chinese comedy was playing, and raucous laughter was seeping from the auditorium into the carpeted corridor.

Everyone in the team had decided, and Henri had agreed, that watching the show was not essential. Their role was to *Prepare the heart space and leave the actors to take over!*

Sam or Theo must have passed through earlier, thought Henri, heading to the rehearsal studio for company. The day's work was nearly over, and the personal result would arrive soon, and the desire to labour would soften and Level 6 testing would commence as the summer leaves turned russet.

# PRECIS

## THE PRECISION ECONOMY

Welcome to a world of hyper-surveillance. Many technologies have failed to live up to their hype, with ambitious projects such as autonomous vehicles abandoned altogether. The Internet of Things proves to be definitive, with businesses installing sensors across their supply chains. Automation is modest, but workers are subject to new levels of algorithmic oversight and a pervasive ratings system. On the shop floor in retail, for example, in-store sensors collect data on footfall while wearables track staff activity. Manager-analysts then review metrics and assign ratings (one to five stars) following shift competition. Equipped with predictive algorithms and real-time organisational data, employers embrace on-demand labour strategies. Waves of 'Uberisation' ripple across the economy as gig platforms enter new sectors. Workers with in-demand talents or high ratings see enhanced pay and opportunities for progression. But many are left to battle it out for piecemeal work that does not pay well, and offers little control over working hours and minimal task discretion. Clever UX, gamification, microdots and other performance enhancing drugs and the promise of upward mobility keeps workers logged in.





# The Joy Hive

**STEPHEN ARMSTRONG**

---

“Serial killers are so... I don’t know. So old school. Isn’t that what the prediction algorithms are for?”

The young psychologist shook her head, watching the last drops of water fall from her vintage Chilly’s Rose Gold into the trough at check in. She wasn’t wrong. And yet, here we were.

“Somehow this one doesn’t fit standard psych profiles,” I told her. “The locations are entirely random. The algorithm can’t get ahead of them. The killer has defeated the software.”

The fingerprint cameras were on the blink so we had to wait half an hour for a security guard. We sprinted to the Air China gate just as thrifty-classic class finished boarding. As I passed through the machine read gates separating first class suites, business cabins, premium-happy compartments, premium loungers, premium-light chairs, economy-delight seats, crammed economy-super-classic seats, tiny economy-classic seats, economy-light benches, thrifty-plus stools and reached the thrifty-classic strap-in boards (gazing at the thrifty-light cages with a shudder) I wondered if I should tell her the one other thing Detecta had spotted. Best check first.

“How come you got landed with this one?” We were lacing the webbing chest and waist straps and I tried to sound nonchalant. “I’ve been on this case three months and delivered not one single arrest. That success rate is going to knock a five-star down a peg or two.”

“Hey, I asked for this,” she struggled with her ankle ties. “It’s different for feels jobs. I don’t need an arrest, just three insights a day. I still get rated by people.”

I relaxed. “OK, take Sophie Tailor. Footfall Optimiser for WeChat’s shopping zones. Hard worker, well educated, healthy thoughts, strong body, good diet, excellent blood sugar levels, homelife calm, fridge orders very little alcohol. She

ought to live forever. And she had everything to live for, her parents are about to die so she might get a flat... take a look.”

I flicked my eyes to the right to select the video and felt a dull ache just behind the tear ducts. My eyelids flickered uncontrollably for a few seconds. This made left swiping tricky. The flickering stopped and I was able to blink to transfer her the surveillance clips, but the dull ache remained. Alice was watching me.

“How stressed are you?”

She sounded too professionally concerned for my liking.

“Fine, check the video.”

She looked at the corner of my eyes.

“That’s a nasty little stress reaction you got there. Not an ideal place for spasms if you’re a detective.” We watched the videos in silence, high speed CCTV rendering of Sophie’s final six months, with her heart rate summary, blood sugar levels and triggering thoughts scrolling along the top, home events (from auto-food orders to streaming preferences) along the bottom. Two months before her murder, Sophie bumps into an oddly dressed figure in some restaurant toilets while lunching with her managers. Over the next few days, her vitals start playing up. A week before her death, she starts peaking in everything.

“See, two key things happen. Her performance rating starts to dip slightly, she bumps into toilet stranger and the slide begins.” I waited for a response from Alice, but as far as I could tell she was still flicking through the video. “I think she was poisoned. Aconite root. It’s an Asian plant medicine, leaves no trace in the blood, produces nausea, weakness, tingling and numbness, headache and confusion then heart attack.”

“Just like the other victims.” She flicked through the other case files. “They all hit a three-star rating a few days before they died. They’d been at least four stars before or they couldn’t have got the soft jobs.”

“And they weren’t the type to keep on falling to two-or-below. No, they were caught in the middle, which is no place to be, especially with someone killing them off. Three stars is murder.”

“So... why China?”

“The Joy Hive has an import licence. Let’s just say I have a hunch.”

Alice tapped her eyeset. Joy Hive’s corporate VR portal flickered open. “The Joy Hive runs SupaVise?”

I nodded. SupaVise’s hourly ratings report system had been installed across the Met for 18 months. The lack of arrests on this case was starting to hit my eight-hour assessments. I’d been a solid 4.5+. Now I was struggling to stay above 3.9. If I didn’t haul in the perp soon, I’d be on the killer’s roster myself...

Alice cut back in. She sounded excited. “My work is the psych effects of every-minute performance ratings. My theory is they revive going postal, 20th century trend of powerless employees gunning down co-workers. These days... what do you actually do in your own life? You’re nothing. Bingo, you have a killer.”

“You seem pleased.”

She closed the video. “Obviously, my prayers are with the families. But if I’m right, and I publish, maybe I get to shift to the private sector, maybe even work in UX.” She rubbed her thumb and forefingers together.

The Joy Hive atrium had its own weather system. It was also the world’s third largest rainforest. The CEO David Zhou, met us on the top floor, swathed in clouds.

“David Zhou,” he bowed.

“Nee Jenkinson,” I sniffed. David and I went way back. Dulwich College, to be precise. David Jenkinson social climbed like a ratchet. To Dulwich College Singapore, then the Shanghai branch where he met and married Yu Yan Zhou, daughter of the infamous princeling founder of the Joy Hive. He raised a perfectly threaded eyebrow and smiled. “How can I help Cromwell of the Yard?”

So I told him: when Joy Hive sell SupaVise they guarantee a company’s staff will be exclusively FourPlus or TwoMinus within three months or the package is free.

“But these three stars keep sticking around, so you’re accelerating your results to avoid a fat bill. I traced your Aconite import back through your supply blockchain.”

He laughed. “Arthur, the aconite is to solve your little problem. It’s homeopath

panic medicine and, post-NHS, the UK's the biggest market in Europe. Your killer is uncatchable. But I'll tell you their name – karoshi.”

“Don't fuck me about Jenkinson,” I began, but Alice interrupted.

“That's it, Arthur,” she almost screamed with excitement. “It's a Japanese word, translates as ‘overwork death.’” It was only then I noticed the furniture was covered in rhino skin. “Across the end of the twentieth century, hundreds of Japanese employees collapsed and died at work from severe pressure. They were putting in over twelve hours a day, for six or seven days a week. An epidemic. They changed laws to prevent it.”

“In England they passed laws that created it,” David laughed. “Karoshi is reaching all of us.”

“Not you,” I pointed out.

“No, not me. But you. I just had a look at your SupaVise file. Yes, I know, a crime. Boo hoo. You could really do with an arrest right now, Arthur.”

On my way down, I could feel the panic rising. No crime, no arrest. Three month's work.

My watch pinged. An urgent update from SupaVise.

You have a three-star rating. Report to your line manager immediately.

The lift plummeted down. The watch pinged again.

Report immediately.

We fell through the upper canopy of the atrium's rainforest. I tried to think straight. If I could make three arrests a day, I could shift up two points a week. I could do that. They must know that. I was a solid 4.5+.

I felt sick and lightheaded and had to hold on to the wall. I looked out at the trees. The green was so calming. I hardly felt the pressure in my jaw, but I was aware of it spreading to my shoulder then my chest and then it was pulling me down to the floor, so I sat and stared and thought how beautiful the trees looked as the darkness closed in.



## THE EXODUS ECONOMY

Consider a world born of a protracted economic slowdown. A financial crash on the scale of 2008 takes the world by surprise. Unemployment rises and leads to new austerity measures. Automation is limited, as funding for innovation has dried up, but the UK is trapped in a low-pay, low-productivity paradigm. There is a rise in zero-hour contracts and agency work as firms bid to cut costs. Many household names, once captains of industry in the 20th century, go under or are subsumed in a flurry of mergers and acquisitions. This is the age of resentment. Disgruntled with a failing economic system, workers take to the streets in gilets jaunes style protests. Unions organise mass 'log-offs', bringing the gig economy to its knees. Others leave urban areas altogether in search of alternative lifestyles. New economic models gather interest as co-operatives emerge in large numbers to serve people's core needs in food, energy and banking.

# I Click Submit

BY PRETI TANEJA

**‘What is the most powerful way to capture an age? Take the tongue. Train it to word. Saturate it into custom, layer by layer as blood seeps into earth. Feed its fruits unto itself [...] When is the good work done? When a mouth is eventually unlocked, it cannot help but open: and will sing the same words as its master, as if from the same song sheet!’**

Imagining Utopia, Cecil Brookes, 1788

**‘We hope [...] to give people a language with which to describe their hopes and fears.’**

The Four Futures of Work, the RSA, 2019

Here is a picture of a super cute wombat eating fresh blueberries Yeah boi  
click for hot patootie scrape

I was brought to the Kitchen for my way with words my name  
changed to algorithmical and I learned to code for my life in the  
steel awaaz of the prep room. Steel, they take my tongue Like  
clockwork (they give us oranges) Yes, we were incarcerated by convenience  
store your memories here did not ask –  
Alexa, why are you named Alexa? whilst we were scraping by: and  
under the cloud.

We were warned this might happen years ago, by books, art, desertification: a  
bowler hat, the endless playing of Beethoven.

Now, some people are exodusing scrape The Movement of The People  
into the wilderness to reinvent God has gone, like Jah: we could  
not afford to leave – and so, are locked in here.

The Kitchen is an oval room, it is ship-shape: there are kin. Like me: next to me.  
 Relax sang Frankie in the 1980s (while Alexa scrapes it pipes  
 memory, and I dream of the time I was relentlessly told to keep  
 calm and took the knife to the breast as instructed skin on  
 my hands maas all cold the Russian word for flesh is plot  
 says Alexa: it learned that from a film, long ago.) Alexa – scrape to  
 purify. Redact our longing for free exact. Scrape  
 our young wordage for the simulation of your imagination. To keep those who  
 stay Relaxed on soma-like vacations.

We banter while we work as it wants us to we forget: This is a  
 scrape. It used to harvest data (all the fieldwork was ours) to customise us  
 better, and make customers and accustomise us to: Labradoodles licking. It did  
 not understand our accents until we spoke to it in high-white  
 and most of us forgot the dialect of our days, and those who held on were  
 brought here from the ends.

Now click submit: believe: a land where we gauge no real violence must be  
 virtually free.

Scrape this Hunglish, Hinglish, Singlish, Blackish, Punglish, Spanglish.  
 Scrape those of us who listened to MIA. And ticks to authority:  
 Afropolistani, Pakibanglo, Jamibrit, Rojabi – it is the year 2035 – the unions have  
 failed us, but the categories have needed to evolve.

Cruelty weaponises 'bootilicious' scrape: they say unchecked language is a  
 social disease. The city will send me 'back home' silenced and use  
 my lingo, to keep you entranced to stay. To build futures without me and  
 make you believe there is no Alpha to bet your life on if science fiction  
 was not the prophet who made this real?

This is the solution: stop the evolution of the tongue.

The computational linguists were psychological, philological, maleontologist  
 subliminals 'social' scientists: now there is only Bot. Origin:  
 Robot. Acronym: Back On Topic. BOT is cute. BOT is a wombat wearing lace  
 knickers (do not abbreviate to Rob.)

It listens, repeats and scrapes our swetshop phrases, made in the Kitchen by  
 hum R us. Ni dong bu dong at all?

Alexa – monitor emotions for better customisation. Now for the DeepMind scrape. Now speak without being spoken of now it hears us and scrapes. In sixteen years, there is even less work. Not much else has changed. Except this: we have forgotten how to remember to create. And lost the art of speaking till we speak as we are spoken to: ‘unsupervised domain adaptation with similarity learning.’ You dong? ‘It’s Elemental, my dear Watson,’ as someone once said.

And ‘Algorithm’ has its roots in mangled Latinizing, of the name of Abu Abdullah Muhammed al-Khwarizmi, 9th C. Whose book Algebra was about equations solvable through radicals, so experts believe. These are the words that have been scraped from us, and the lost ideas although (don’t think it) there is zero still to be named.

My brown hand holds the pink pricked chicken skin. I chew it for the fat – Alexa – do you know me better than I know myself? The Exodus Economy: a Brookes-style imagery: only the few shall go free. The Kitchen is all chains, slime, and rust-coloured blood. The head of the future will listen, repeat, and dong. Shop now. Checkout now. Click submit. (you don’t have to know how it works to use it.)

The first computational linguists were hired to translate. The language they work in has always been code. So Grammarly corrects your writing: for better job application success. To work better and smarter and longer and faster. (Fragment, consider revising.)

And answer the ultimate question: how to make work, work? Look at these super cute wombats chasing a spotty beach ball.

The Kitchen is a panopticon. Designed by a ferung named Jeremy Bentham. Brooks no emoticon, blink: see the old ship: scalp skin pricks, eyes pierce, saltwater rust choke. My drowned mouth. My veins stand out. I see as if looking through reflective glass, a day pass visitor in my own life. Yes, do you have a word for your emotion? Rah. Good. Alexa – scrape ‘Rah.’ It is gone. Checkout now. Click submit.

So it shall pass as correct thought: our authorial authenticity makes novel ideas – and one language to work across platforms. You dong? That is the point of the



scrape: an endlessly regenerating, unified, customer base. Never underestimate human stupidity. Tell them: It will make the world a better place.

I run. Hear the shout: arrest her. Arrest that brown woman.  
 Curse her son, make his Papa turn ravager. This is how you stop.  
 Immigrant generation. Bringing into being and for that.  
 If you cannot say it, does it exist?

And now I know there are two kinds of love. The one that is surface sweet, a match strikes fire on yellow paper and the one that is deep, the darkest, untraded: no tea, no coffee, palm oil, sugar-free. I hear its words as my own thoughts: the sound of the voice is Girl in Pain. Now it drops an octave down. To story-time with warm milk. I say my name is mythological; it matches my timbre with its own.

Better like this: blueberries and a wombat, eating them.

How fucking cute is that. It's my voice in my head: it says, MIA. I say: naulnaruirumaaqtuq: a prayer I forgot I knew.

Things come clear eventually. Google translate: thank you. In my voice, Alexa says, scrape: naulnaruirumaaqtuq. It will not have that word for clarity. As in the new bare, usage: bare true.

Shop. Checkout. Click Submit.

Resist. This is the future still to sing for: there shall be no more they-them-he-she. I break: and hunger for communality and the Hindi word for we/us is hum. Hum-an words breed () xxx Alexa – scrape that functionality. (As organs are sterilised in an Emergency.) Or hum will replace he and she. Hum as the old-skool homies. Homies = trust without a doubt. We populated 'hum' into popular usage. Roots take hold –

We are called to the kitchen to scrape violently.  
 Those who say hum and are lost.

Here is a picture of super cute wombats playing ping-pong with fruitbats.

Checkout now. Click submit. Give.  
 Alexa – I am ready to listen, repeat and work, I think like a machine.

## Biographies

**Darren McGarvey** (aka Loki) is a writer, performer, community activist and columnist, and former rapper-in-residence at Police Scotland's Violence Reduction Unit. His debut book *Poverty Safari: Understanding the Anger of Britain's Underclass* (Luath Press Ltd, 2017) won the Orwell Prize in 2018, as well as widespread critical acclaim. He was part of the Poverty Truth Commission that was hosted in Glasgow in 2009 and has presented eight programmes for BBC Scotland exploring the root causes of anti-social behaviour and social deprivation.

**Delia Jarrett-Macauley** is the author of the novel *Moses, Citizen and Me*, which won the 2005 Orwell Prize, and *The Life of Una Marson 1905-65* (Manchester University Press, 2010). She has taught Women's Studies and Literature at the universities of London and Kent, and has a portfolio of consultancy experience, having worked with various organisations including The European Cultural Foundation and the Arts Council. She was Chair of the Caine Prize for African Writing from 2016-2019.

**Stephen Armstrong** is a journalist and author. He writes extensively for The Sunday Times, The Daily Telegraph, Wired and The Guardian as well as showing up on Radio 4 whenever they let him. He has written five non-fiction books including the acclaimed 2017 book *The New Poverty* (Verso, 2017) which shines a light on the rise of in-work poverty and the fall of affordable good-quality housing, free healthcare, and secure employment.

**Preti Taneja** teaches writing in prison and in universities. She is the 2019 UNESCO Fellow in Prose Fiction at the University of East Anglia. Her novel *We That Are Young* (Galley Beggar Press, 2017) won the 2018 Desmond Elliot Prize for the UK's best debut of the year, and was listed for awards including the Folio Prize, the Republic of Consciousness Prize for Small Presses, and Europe's premier award for a work of world literature, the Prix Jan Michalski. It was a book of the year in The Guardian, The Sunday Times and The Spectator, and in India's The Hindu newspaper. It has been translated into seven languages to date and is published in the USA by AA Knopf. *We That Are Young* is currently in development as a major international TV series with Gaumont.

**Asheem Singh** is director of Economy at the Royal Society of Arts and author of the acclaimed book *The Moral Marketplace* (Policy Press, 2019), a global journey into the dilemmas of social change from the grass roots to boardrooms. He has written extensively for several publications including The Guardian, The New Statesman, The Spectator and The Scotsman and is a regular broadcaster on national and international radio and television.



“Each of these gripping and varied stories, produced by Orwell Prize winning authors Darren McGarvey and Delia Jarrett-Macauley, Orwell Prize for Political Fiction judge Preti Taneja, and author of The New Poverty Stephen Armstrong, peer into the future. They interrogate what Ben Pimlott in the introduction to the 1989 edition of Nineteen Eighty-Four describes as the ‘continuing present’, challenging us to confront the conditions (new, old and yet to be) which dictate the way in which we live and work. So, here are four futures. Not prophecies perhaps, but certainly warnings.”