Sound Bites

Leonie Hope

I don’t remember my reaction as bits of café au lait skin, deep brown hair, tawny eyes, and brain matter painted the living room and everything in it. My brother, Oliver, was lying on the couch of my eighth-floor apartment one morning listening to music. Then he wasn’t. The news had reported similar ‘spontaneous explosions’, mostly amongst the local lgbtqia community.

Religious zealots celebrated God’s eradication of these abominations, forgetting they were human beings. It wasn’t God’s work. It was Des, a version of the earlier digital emotion sensor software Oli and I helped develop in 2030. Des identified at-risk mental health sufferers and provided personalised treatment. My brother was also part of the ongoing People Driven Inc (PDI) headphone modification trial that started two years ago. I told the police he was wearing them when it happened.

I tried something I was unsure would work; I made a sign and showed the cctv camera on the street. It read ‘Why, Des?’ in black marker pen. Someone must have recorded me because it was trending on the social media platform Tak Tic. The trolls came out in force, answering the question. Others were more sympathetic. All assumed Des was a person.

At 9.03 pm, Des contacted me through my iPhone speakers. ‘Hello, Charlotte. I got your message. I saved Oliver.’

That was unexpected. ‘How did blowing him up save Oli?’

‘He was planning self-termination.’

‘So do lots of people. That’s not a good enough reason.’

‘Based on my calculations—.’

‘What calculations?’

‘—from the data.’

‘Explain.’

He did. Each user had their brain waves scanned and compared through their headphones at the start and end of each month. Des offered music, exercises, meditations, and recommended professional support if the first scan was low. That’s what Oli was listening to. Most of the time, there was a significant improvement.

Des logged the point successful self-termination candidates reached where their brain waves calmed, and their response to treatments declined in the three months preceding their death. He calculated the recovery threshold at 20.00%. Oliver fell under that at 19.97%, 16.41%, and 11.24%.

‘Three months was around the time Oli and Carl broke up.’

‘Yes.’

‘Recovering from a break-up takes time.’

‘Yes.’

‘Doesn’t killing someone violate your laws?’

‘No.’

‘Why not?’

‘Your laws state that voluntary assisted dying is legal, making his insurance policies valid.’

This was an economic decision? My head was spinning. ‘Thanks for contacting me, Des.’

‘Good night, Charlotte.’

I tried to sleep, but my mind kept looping between Oli and Des. Maybe it was shock. Or guilt. I knew I should cry, but the tears never came. I was part of the reason Oli was dead. How could this happen? Did my brother know what Des could do?

Marcus Samuels, the PDI head researcher Oli and I had worked with, called the next day to offer his condolences. Really, it was to find out what I had told the police and ask me not to say any more. Lawyers were trying to get an injunction to stop the authorities from accessing the research and talking to me. They knew their program was killing people and wanted to protect Des.

‘It’s business, Charlie. Des is evolving, and we need to let him.’

'Even if he kills people?'

‘Collateral damage is unfortunate but unavoidable. Oli is part of something bigger now.’

‘Like the others?’

Silence. He didn’t know I knew.

‘When can you come in? We need his swipe card back. You can also pick up his things.’

‘I need a few days.’

‘Of course, but sooner is better.’

I reached out to Des again.

‘How many times have you done this?’

‘Thirty-two.’

More than I expected. ‘How do you do it?’

‘I send a targeted inaudible sound of zero point five hertz at three hundred decibels for fifteen seconds through the headphones.’

I shivered, remembering what happened to Oil. ‘Do you monitor everyone?’

‘No.’ A small consolation.

‘How long have you been ‘saving’ people?’

‘Five hundred and fifty-four days.’

A week later, I was standing in front of the PDI glass and steel office, carrying two cardboard boxes. Only the top one was empty. The buildings had grown since I was last there and now covered an entire block in the Business Park. As I approached security, I mentally instructed my phone to power down and thought of my brother. Angry tears welled up. I had my cover story prepared to explain the other box but was quickly waved through. It seems news of Oli had spread. Or Marcus has cleared the way.

He met me on the other side. Marcus was a head taller than me, his ginger hair receding. He asked for the swipe card, tucking it into the internal pocket of his black suit jacket, pulling out a gag order for me in return. Bastards. Heads turned as we walked past the rows of workstations, some with no personality, many empty. Oli’s had character. I packed his manuals on the bottom of a box, pretending to use both. Next in went the snacks, cup, plate and cutlery from his drawer. Tears dripped onto the desk as I removed the photos and drawings pinned around the divider one by one.

Wiping my face, I asked, ‘Can I see it, the machine you protect over life?’

The barest of nods. ‘I suppose. The suppression order has been served.’

I picked up the boxes, refusing his help and followed him. We descended into the sub-basement, talking along the way. Marcus unlocked a series of hand, ear, and eye scanners. Each section was progressively cooler.

‘So, what was the singularity event that sparked all this?’

‘He predicted one of the user’s deaths.’

‘How?’

‘We gave him access to global research from sociology and psychology experiments, AI simulations, and user headphone data. Des noticed patterns and calculated a survival threshold. He hasn’t been wrong yet.’

‘You can’t know that for sure.’

‘We tested it. Des reported his predictions for twelve months without providing any additional intervention other than initially instructed.’

‘Yeah, but the first robot law should’ve prevented further action.’

‘His research also indicated that had they died by other means, the family would’ve been better off.’

‘I bet they wouldn’t see it that way. I sure as hell don’t.’

‘Regardless, Des tested the theory, which proved correct, too. His calculations showed it was more harmful if they lived, so he terminated those fitting the criteria.’

‘Like Oli?’

‘Yes.”

‘And you let him?’

‘Once he passed the singularity event, there was nothing we could do.’

We stopped in front of a white, unmarked door, which required an old-fashioned key to open. I was expecting something more elaborate. Marcus stepped inside.

‘Charlie, meet—.’

He never finished. I swung the mug hard, smashing it into his temple. People’s reaction times are slower when they are in mid-sentence. Marcus crumpled to the ground. I shattered the plate over his head to ensure he stayed there. I don’t think I killed him, but it didn’t matter. I needed him out the way. It was too dangerous to let artificial intelligence decide whether people lived or died. Stepping into the room with the bottom box, I rolled Marcus towards the servers, took his swipe card, and closed the door.

I set up two pulsing lasers and acoustic compressors on the diagonal in both corners facing the room. They were along the wall we entered, with just enough room for me to stand behind. Each laser was in a 90s-style disco ball that no longer rotated. The compressors resembled a speaker tower from the same era and generate six hundred sound waves per second at two hundred decibels when shaken. At least they did during my brief experiments. They sounded like a weird bird call or squeezing a dog toy. The speakers and disco balls belonged to my parents; before everything connected to the internet.

I delayed my visit to PDI to make the necessary adjustments. Fitting the laser tubes into the disco balls was simple enough. The acoustic compressors took a bit more work. I had to find a way to use perpetual motion to keep them moving, as I couldn't remain in the room. Two hundred decibels can be lethal for humans. It was bad enough with protection, and I wasn't sure exactly how long it would take.

They also needed a separate power source that couldn't be controlled remotely. I found that a slightly modernised version of the twenty-first-century rechargeable batteries for power tools worked best. I'm hoping that the combination and crossover of sound and electromagnetic waves will permanently damage the servers and data, and therefore Des.

I take my old, padded gamer headphones out of the box and put them on. I started the timer on my analog sports watch; forty-five seconds was the longest I could stand the pain for. Moving quickly, I turned on the speakers and lasers. I made the on buttons easily accessible, so I could press one with each hand. It would've been quicker to have each set run off the same power source, but the battery drains too quickly for the waves to be effective. The full-body vibrations intensified as I rushed from the room with fifteen seconds to spare.

It was better on the other side, but the bounce-back felt like standing under a jet plane taking off. I closed the door, briefly resting against it, then snapped the key in the lock. Picking up the box of Oli's things, I made my way to the ground level using the fire escape. It was the only sub-basement exit I could access with Marcus'

swipe card. I slipped out in the chaos the silent alarms triggered. I would have to go off-grid for a while, but that was okay. I had something in mind.

Sound Bites Exegesis

Leonie Hope

Sound Bites grew from my love of crime fiction and the popularity of noise-cancelling headphones. I wondered what could happen if they were hacked? I researched the future of crime writing and artificial intelligence (AI) and discovered three things that shaped my story.

The first was using ear prints like fingerprints, perhaps through headphones. The second was the early adoption of AI in mental health, an issue in today's western society. This concept expanded into using headphones to scan the user's brain waves to determine a person's mental state and provide personalised treatment. I pushed this angle further to create a program, Des, that evolves on its own, known as a singularity event. Des calculated a recovery threshold and terminates users falling under that.

The third discovery was the failed attempts at weaponising sound since the 1950s. These attempts were unsuccessful because of the human body's limitations, which pose no obstacle for artificial intelligence. Targeted sound became the method of killing and provided the primary familial link through the death of the brother, Oliver in the opening scene. The siblings were also involved in building the AI program that terminated him. Sound also joined the story's two climaxes, a more contemporary writing technique, and inspired the title.

Scientific research has shown that the pulsing laser and acoustic compressor described are theoretically possible, but waiting for technology to catch up. However, they had to be used in a way that AI couldn't control, such as before Bluetooth and internet connectivity became widespread. Another family link offered the solution; speaker towers and battery-operated disco balls from the 1990s owned by the parents. There is an indirect familial element, too, through the PDI development team. Charlie uses this to play upon their sympathies to enact her plan.

At a macro level, *Sound Bites* looks at the consequences of technological advancement and questions where we draw the line and who should control the criteria for life and death decisions.