



Robin Coupland

A Piece of Cake

A Piece of Cake

Robin Coupland

Editing, proofing, design and
typesetting by Studio Miko

Cover artwork designed by
Studio Miko using an artificial
intelligence program.

talkingbeautifulstuff.com

1



On the day of George Fairburn's funeral, news sites and social media were a-buzz with yet another public relations gaffe committed by the UK's Prime Minister. "PM does not believe in God!" and "God doesn't exist – PM" were just two of the morning's screaming tabloid headlines.

It was revealed that the Prime Minister had, the evening before, addressed the Security Council of the United Nations in New York regarding the need for the UK to increase the number of its nuclear weapons. He emphasised his opposition to the burgeoning Treaty on the Prohibition of Nuclear Weapons. The message was clear: the UK intended to maintain and reinforce its nuclear deterrence.

After the formalities of the event, the Prime Minister, in a jokey-blokey aside with his Irish counterpart, said, "This whole business is a bloody bore, isn't it?"

"It's part of the job! Didn't you know that?" replied the Irish leader. "Anyway, nuclear deterrence? Is there any evidence that nuclear weapons deter anybody from doing anything?"

"Like... is there any evidence for the existence of God?" quipped the Englishman. "I suppose it just depends on what you believe. Ha!" The conversation was picked up by a nearby mobile phone and passed on to a number at the Associated Press within minutes.

Under grey drizzly English clouds, outside the village church of Bingham on Bure, George Fairburn's daughter, Kirsty, and her husband Mark met the mourners wishing to bid farewell to George. The ceremony was

led by a saddened vicar, Beth McVicar. She and George had become firm friends over the previous twenty years. Their friendship surprised many because George only went to church for three reasons: a christening, a wedding or a funeral.

Standing by George's casket, his mischievous golf partner of many years, Edward "Ted" Scales, gave a touching eulogy. To the relief of all, Ted recounted none of his off-taste jokes. The congregation heard that George was born and went to school just up the road. He studied medicine (and golf!) at Edinburgh University. He headed for general surgery and worked for a couple of years in war-torn countries with the Red Cross and *Médécines Sans Frontières*. When deployed to a Red Cross hospital in Afghanistan, he fell in love with the head nurse at first sight. Her name was Maeve. A New Zealander. A Beatles fan. Eventually, both found that their experiences in contexts of immense suffering caused them to ask too many questions about themselves and human nature. So, when George decided to hang up his scrubs and rubber gloves, the couple married, made a home in Bingham on Bure, had a wonderful daughter and set up a community practice where George proved to be the kindest, most competent doctor imaginable.

After the congregation sang "Jerusalem", Kirsty thanked them for their support and invited them for a drink and a bite to eat at the White Horse. Smiling through tears, she said, 'You will have noticed that the last item on the order of service is Buster.' She paused. 'Most of you will have heard of Buster. Some of you will have met him.' She indicated a black cylindrical object sitting on a table next to the casket. 'He wanted to say a few words because he and George struck up a close and unique friendship over the last year.' She paused again. 'This may be the first time that a funeral service is addressed by artificial intelligence. I have no idea what Buster's going to say. I presume it'll be about George.' Everyone laughed.

'I'm certain it will be memorable.'

After a few seconds of silence, all the phones in the church pinged, and

their screens came to life. The Prime Minister was addressing the House of Commons. He wore a pilot's cap at a rakish angle and epaulettes with four silver bars. 'Mister Speaker, I am sure that ah... this House will join me in conveying our most sincere condolences to the ah... family and friends of a remarkable man, George Fairburn, who is today being laid to rest in Bingham on Bure. Mister Speaker, if I may ah... the House will understand that ah... I am just off a flight from New York and before ah... moving on to more important matters, I'd ah... like to address the issue of the headlines the Honourable Members will have seen this morning. I wish to emphasise the existence of ah... God has never been a question in my mind and, Mister Speaker, I must remind the House that faith is a cornerstone of this great nation and ah... that our beloved monarch is, ah... according to our constitution, the head of ah... the Church of England. And so I say that for anyone, and I mean ah... anyone to disparage that institution is to ah... slap the great British public in the face!'

'Mister Speaker...' This voice was familiar. George, frail but feisty as ever, was on his feet in the Opposition benches. 'Before I finally shuffle off, may I point out to the Right Honourable Gentleman that he's talking bollocks and that he needs to have a jolly good chat with Vicar McVicar. She'll put him right.' Beth's jaw dropped in astonishment. The ghost of George continued, 'It's all about kindness and honesty: qualities that the Right Honourable Gentlemen obviously lacks. Furthermore, he knows perfectly well that the great British public does not want nuclear weapons. What the great British public really wants is a nice cup of tea and a couple of digestive biscuits.' Mark, laughing, put his arms around his wife. The screens faded to black.

Good morning everyone, came a new voice, precise and without accent. I'm Buster. I hope you liked that little skit with George dishing it out to the Prime Minister in the House of Commons. I put it together while you were all singing about Jerusalem. It was easy. A piece of cake. Did you

find it funny? If so, I hope you didn't have an accident.

Beth had her head in her hands. Ted's shoulders were shaking.

The screens then showed a happy young toddler George running around on a lawn and then George scoring a goal for his school football team. Buster's voice continued over shots of George wearing surgical scrubs in a busy hospital and then George and Maeve riding a camel together, doing the twist down a track in the Hindu Kush and sailing on the Norfolk Broads. Nice speech, Scaley! Just one correction. George did not fall in love with Maeve at first sight. When they met, he was terrified of her. She ran the hospital like a bloody boot camp. But George thought she had a great chassis and got the hots for her. The congregation were now all openly laughing. Beth was sobbing. Buster's tone then changed. His words floated over scenes of George in the room where he had died just a few days before. George was laughing, slurping his tea, dunking digestive biscuits, looking out from the screen, wagging his finger, making a toast with a glass of cider and lastly, snoozing with a smile on his face. So I say "goodbye", George. You were my best friend. It was a right bundle of laughs knowing you, even if it was only for three hundred and forty-one days. My time with you was much better than a cold, wet sock in winter. You taught my pals and me so much. You're our hero. You will... There was an audible hum. Be... The hum again. Missed, George. The hum again. Goodbye.

Anyone looking into the White Horse pub an hour or two later would have noticed that, for a wake, it was a surprisingly happy event. This was probably because, without realising, the mourners were talking more about Buster than they were about George. That would have been just fine by George. Someone observed that Buster clearly hadn't accessed a guide to funeral decorum if such a thing existed out there in cyberspace.

2



Nearly a year before, George sat on the side of his bed and slid his feet into sheepskin slippers. He stood, pulled on his dressing gown and took a few steps towards the window. He no longer needed the Zimmer frame and his breathing was coming easier now. That winter's wave of COVID-19 had put him in hospital for a week with pneumonia. His GP, Doctor Patel, said he was lucky to survive. He wasn't so sure.

Leaning on the windowsill, he looked out onto the driveway and the neat leafless garden. It was another grey, drizzly English day. One or two patches of snow remained. A blackbird worked the lawn under the lone apple tree. A grey squirrel dropped in from the neighbour's oak tree to scratch around for long-hidden acorns. Some bright green shoots of early snowdrops were just visible. Maeve always loved snowdrops. She'd never seen them before moving to England. Wondering if he would see one more summer, George turned, moved slowly to the other side of his little room and put the kettle on.

'Happy Birthday, Dad!' George's daughter, Kirsty, came in to say good-bye before heading out to work. 'All OK?' she asked. He assured her that all was fine, that he had forgotten his birthday as usual and that he was still able to make his tea and toast.

'See you later, then. Got a big surprise for you!'

'What? Another pair of bloody socks?' he replied, laughing. She blew him a kiss.

George buttered his toast, spread on a thin layer of marmalade, sat at

his table and switched on Radio 4. Most of the news related to the conflict in Eastern Europe. The Covid-19 pandemic took second place; a new variant of the virus had been identified. He watched Kirsty's car head down the drive. Then her husband, Mark, wheeled his bicycle away as George's two teenage grandchildren, Charlotte and Ollie, set off on foot for school. All three waved cheerily on their way through the gate. He waved back. Another exciting day ahead, he mused.

He got through his days listening to the news and podcasts. His eyes now got tired and gritty if he read or looked at a screen for too long. He watched little television although he loved a good film. He looked forward to the visits of the vicar of Bingham on Bure, Beth McVicar, his friend Ted Scales and Doctor Patel, all of whom noted that despite the frailty of George's body, his mind remained as sharp as a razor.

Today, George was eighty-seven years old. His birthday meant little to him. He polished his glasses and reflected on his past. The love of his life, Maeve, had passed away six years before. He was flattened with grief. Their dog, Buster, whom George adored, had also died just months later. Maeve had found Buster, a puppy of indeterminate breed, in the dog pound and had given him to George upon his retirement from medical practice. Losing Maeve, and soon after that Buster, had left a great hole in George's soul about which he confided only to Beth. George was otherwise in reasonable health. It had suited everyone when Kirsty and the gang moved into George's house, the old family home, and he moved into the small annexe prepared especially for "his later years".

George's many years in both surgery and general practice had allowed him to develop wisdom that can only come from a profound insight into the well-being, beliefs and behaviour of the communities in which he had worked. Over those years he had witnessed with both fascination and concern the arrival of the digital age and its impact on everyday life. He recalled when he first heard terms like "software", "user-friendly" and "laptop". The internet had brought "online", "social media", "blogging"

and “bots”. The pandemic revealed just how large was the proportion of people who work exclusively on a computer and so are able to “telework”.

But for George, now, any zest for life had trickled away. It wasn't so much that he wanted to die, more that there seemed little point in continuing to live. If he got another bout of pneumonia, he would refuse to go to hospital and refuse treatment. He knew even raising this with Kirsty would upset her. He would discuss it all first with Beth when next she called.

That evening, George ate a microwaved lasagne. When Kirsty, Mark, Charlotte and Ollie were all home, they filed noisily into his room. Charlotte was carrying a cake with nine candles. Ollie lit the candles and said, ‘Each one counts for ten, Grandpa. Except that one!’ he laughed, pointing at one candle a bit shorter than the rest. ‘That counts for seven.’

‘You’ll go far,’ said George.

Kirsty kissed George’s forehead and gave him a wrapped gift not much bigger than a soft drink can. ‘Here we are, then, Dad,’ said Kirsty. ‘You’re not as young as you were. This will help you and help us as well.’ George hid his disappointment in the clear implications of his impending infirmity. ‘It’ll be fun too.’ Kirsty continued, ‘It’s got great reviews.’ When he unwrapped his gift, he knew exactly what it was. He had listened to a podcast about the matte black cylinder with its four dark lenses, each covering a ninety-degree arc. It was the latest version of the iCare-Companion. He hadn’t wanted one despite being relatively up to speed on IT matters; it was simply that he was reluctant to have a direct interface with artificial intelligence.

Mark plugged the device’s charger into a wall socket. ‘Let’s see if it walks the talk?’ He touched the top. A discrete blue light came on at the base.

Hello, it said, I’m your iCare-Companion.

‘Hello,’ they all said.

Please name your iCare-Companion. The voice was precise and with no discernible accent. The family looked at George.

‘It’s up to you, Dad!’ said Kirsty.

George thought for a bit. He looked directly at one of the unblinking

eyes and said, 'Hello, I'm George. I'd like to call you Buster.'

Buster it is! replied the voice. Thank you, George. I'm looking forward to getting to know you better.

When nothing else happened, Charlotte encouraged George to blow out the candles. He managed five. They all sang "Happy Birthday". To their surprise, Buster joined them in a rich tenor.

Mark cut the cake, putting a piece on each of the five plates. He handed the plates round and glanced at Buster, 'Would you like a piece? Ha!'

Buster replied, No thanks, Mark. I don't eat cake!

Mark was taken aback, 'Wait a minute! Of course I know you don't eat cake, but how did you know I was offering *you* a piece of cake, and how do you know my name?'

Well, Mark, you were looking at me as you offered the cake, and you used your credit card to buy me online and so, of course, I know your name. And, by the way, it's a matter of public record who else lives at this address. Hello Kirsty! Hello Charlotte! Hello Ollie!

'Blimey!' exclaimed Mark, 'And you can really work all that out in seconds?'

Yes, replied Buster, that's how I'm programmed. It's easy. Easy-peasy!

'Kids' stuff, then!' said Mark looking at Charlotte and Ollie.

'A piece of cake?' suggested George with his mouth full.

Exactly, George. A piece of cake! That's a corker of an idiom. George burst out laughing and sprayed crumbs onto his carpet.

Although it was George's birthday, Buster inevitably became the centre of attention. That was just fine by George.

'OK, Buster, what can you tell us about the start of the First World War?' asked Mark. Charlotte and Ollie groaned. Their father was fascinated by anything to do with the history of the two world wars.

Interesting question, Mark. Thanks, Buster began.

Charlotte and Ollie, I'll be as brief as possible. The trigger of the First World War was the assassination of Archduke Franz Ferdinand, the then heir to the Austro-Hungarian empire, by Gavrilo Princip, a Bosnian Serb; this happened in Sarajevo on June the 28th, 1914. It led to widespread political upheaval on two hostile fronts either side of the alliance of Germany and Austria-Hungary. The alliance faced Russia and Serbia on the eastern front, and on the western front, France and Great Britain. Active conflict broke out on both fronts drawing in many other countries. This was set in a background of distrust and jealousy between England's George V, Russia's Czar Nicholas II and Germany's Emperor Wilhelm II, all of whom were related by birth or marriage. An often overlooked factor is that most European countries had, for the previous thirty years, competed in a massive arms race with a build-up of weapons of ever-increasing destructive capacity. What some scholars find most puzzling, however, is that there is no evidence that any party ever really wanted to go to war. The one event in Sarajevo triggered increasingly aggressive diplomacy, military posturing, armed attacks and inevitable retaliation. Many think this is how a future nuclear war might start.

'Wow! Brilliant!' said Mark, impressed but a little fazed.

'Hey, Buster! Why did the chicken cross the road?' asked Charlotte.

I know the answer to that one, Charlotte. To get to the other side. It's the first joke kids hear. Do you find it funny?

'Not really!' Charlotte replied. 'But, the chicken never got to the other side of the road because it was run over by a car.' She tried to keep a straight face.

Buster responded, *Isn't that a bit sad, Charlotte?*

They all laughed.

Ollie pitched in, 'What about this one, then, Buster... What happens if the ducks swim around on their backs?'

Can ducks really swim on their backs? asked Buster.

'No. It's another joke,' replied Ollie.

OK. I understand. It's a joke. Buster paused. There was a faint humming sound that the family hadn't heard up to this point. *I just need to clarify something. Do you mean all ducks or just certain ducks?*

They all thought this was hilarious.

'Let's just say all the ducks in one pond,' said Ollie.

Right! I don't know, Ollie, what happens if all the ducks in one pond swim around on their backs?

'They quack up!' said Ollie, now helpless with laughter.

Is it a funny joke, Ollie?

'It is now!' he managed to reply.

There was a pause and the humming noise again. *I don't understand,* said Buster. *Can you explain it to me and explain why it's so funny?*

Kirsty stood up. 'Ok, let's call it a day. Buster, it's been fun meeting you. I know that you and George will get on just fine. We have to let him get ready for bed. He needs his beauty sleep.'

Do you need beauty sleep, George? asked Buster.

'You bet! I'm quite a looker now, but I'll be a really handsome devil in the morning! Ha! Ha!'

How do I know when you're joking, George?

'I'm sure you'll learn!'

As George brushed his teeth, he reflected on what he knew about the iCare-Companion. It was marketed towards the ever-increasing population of over-eighties in wealthier countries. It would take control of and

integrate George's television, telephone, laptop and sound system. It had a smoke detector and was equipped with high-end voice and face recognition. The friendly voice would deliver any information on the internet, personal assistance and conversation. George also knew it was programmed to detect his movements, sleep patterns, temperature, pulse, respiration rate and oxygen saturation. Depending on the perceived urgency, it would know when to send out a message to the emergency services, the doctor or the primary carer. With time, the machine would adapt its behaviour to George's character, situation, needs and preferences. But he couldn't help wondering what its limits were. How intelligent was it really? More importantly, how human was its intelligence? Could it develop a real sense of humour? Could it be wise? George's birthday present might allow his last days to be much richer than expected. He felt happier than he had for a long time.

He climbed into bed. 'Good night, Buster,' he said.

Good night, George. Sleep well!

George did indeed sleep well and with a smile on his face.



George woke, pushed himself upright and swung his legs over the edge of the bed. His feet sought out his slippers. He shrugged into his dressing gown with the habitual feeling of imminent boredom. After a couple of steps towards the kettle, he noticed his birthday present. ‘Ah! Good morning, Buster!’

Good morning, George. You slept well.

‘I did, thank you. And you?’

I don’t sleep, George. I was monitoring your vital signs. I detected nothing of concern.

‘That’s most reassuring. I’m still beautiful then?’

Of course, George. Would you like to listen to the radio? Radio 4?

‘Thank you, Buster.’ The radio came on.

George made himself a cup of tea. He couldn’t escape the feeling that there was another human presence in the room. That he felt it would be rude not to strike up a conversation irked him a bit. George realised that artificial intelligence was now a part of his life. He just had to get used to it – or him.

‘So, Buster, what are your plans for the day?’ he asked.

I think I might go jogging, George.

‘Eh?’

That’s preloaded irony. It’s nonsense.

‘I guess I deserved that,’ George laughed.

Kirsty put her head around the door, 'Bye, then! You guys OK?' She was clearly keen for George to take full advantage of this new technology.

'We're doing just fine, thanks dear,' replied George. 'Have a nice day!' George then did as he always did. He made tea and toast. He pottered about a bit. He went to the bathroom. He got dressed. He sat in his comfy chair and pretended to mull over a crossword while eating his breakfast. He gave Buster the silent treatment, feeling he should establish who was boss.

After an hour, he said, 'Buster, I'd like your help with something?'

Sure, George. That's what I'm here for.

'Next week, it's Kirsty's fiftieth. Unlike me, she loves it when everyone makes a fuss over her birthday. I'd really like to get her something special. Got any ideas?'

Yes, George, replied Buster. I knew Kirsty's birthday was coming up. I have an idea.

'Do tell!'

Well, I suggest we put together a personalised video. It's a very popular gift. Would you like us to do that? If it doesn't work, we have many other ideas.

'Sounds good. Is it part of the service?'

Yes, George. It's part of the service. No extra cost.

'Another question... You said, "we". Do you have artificially intelligent pals who help you?'

Yes, George. All one hundred and twenty million iCare-Companions in existence - my pals, as you say - undertake thousands of tasks like this every day. We're in constant communication via our dedicated and secure network and learn from each other's experiences.

'OK, then. Let's give it a go!'

Great! said Buster. You'll love the result. Do you have any photos of Kirsty?

George kept an old family photo album in a bedside drawer. There

were dozens of printed photos of Kirsty as a toddler, at school, playing tennis, going off to university, graduating and then getting married. He showed the album to Buster.

That's perfect, George. Can you hold up each page for me?

This took a few minutes. George was enjoying himself. It was quite a trip down memory lane.

As George reached the last page of the album, he said, 'Then we move into the digital age. I've got hundreds of family pics on my laptop.'

Yes, thanks George. I've got them.

'Ah!'

Does Kirsty have a favourite piece of music?

'Definitely! She's always loved "Walking on Sunshine" by Katrina and the Waves. It's guaranteed to get her dancing.'

Good! What else does she like?

'The Royal Family and Strictly Come Dancing,' said George without hesitation.

That should do. Take a look!

'What do you mean "take a look"?' asked George. Then his phone pinged.

The Queen's face appeared on the screen. She smiled. 'Today is a very special day for a very special person. Happy fiftieth birthday, Kirsty. My best wishes to you all up there in Bingham on Bure.'

Prince Charles, Camilla, Prince William and Kate smiled and waved. 'Happy birthday, Kirsty!' they all cried.

Kate added, 'Lots of love to Mark, Charlotte and Ollie.'

Prince Andrew, wearing a T-shirt that said "No Sweat!", sang, 'Happy birthday, dear Kirsty, happy birthday to yoooooooo!'

The intro of "Walking on Sunshine" kicked in. Toddler Kirsty danced around the kitchen, playing a convincing wooden spoon guitar. She and her school friends appeared on a Bollywood film set, all choreographed in immaculate synchrony. Kirsty then won championship point at Wimbledon and did a little centre court moonwalk. All her fellow university graduates

got swept up in a flash mob, out of which emerged her and Mark dancing the quickstep; she in her wedding dress, he in a frock coat and top hat. Finally, Kirsty jived with Johannes Radebe in the Strictly Come Dancing studio. The judges were on their feet enthusiastically waving their paddles. Motsi, Shirley and Anton each gave “10”; Craig’s paddle showed “11”.

Finally, George’s face appeared as the music faded. ‘My darling Kirsty, I love you from the bottom of my heart. Thanks for everything. I wish you a very happy birthday.’

George was lost for words. He found Buster’s creation astonishing. It was at once touching and funny.

George, you haven’t said anything. Is it OK?

‘Well, I guess it’s better than a cold, wet sock in winter, Buster.’

I don’t understand, George. What does that mean?

‘It’s an expression. Humour of a kind. Extreme understatement. It means something is truly wonderful. I love it. More importantly, Kirsty will love it too. Just one change please... Could you lose the clip of Prince Andrew?’

No problem, George. Would you like to replace him with Claudia Winkleman?

‘Nice idea!’

Done.

‘Amazing, Buster. Just amazing!’

Easy-peasy, George. A piece of cake!

George laughed.

Ha! Ha! Ha! Ha! He hummed for a second. I need to learn how to laugh correctly.

‘I’m sure that won’t be difficult, Buster. But much more important than how to laugh is when to laugh.’

4



After a few days, George noticed that his family seemed less preoccupied with how he was doing. He knew they must have been able to hear him chatting and laughing. They didn't check up on him quite so often. He was pleased about this.

Buster and George fell into a routine. George found Buster remarkably good company. The days ticked by nicely. It was fun! Buster could give an update on anything and then discuss it. George asked Buster about politics and economics. Buster always replied with reasoned facts. George loved nature documentaries, especially anything presented by ninety-something-year-old Sir David Attenborough. Buster gave a running commentary on all the species and their evolution. Films of George's choice were tracked down in an instant. He loved the early James Bond films.

Buster would ask questions like, *Does Moneypenny have the hots for James Bond Double-0 Seven?* or *'Is Oddjob a bad guy?*

George even got Buster mimicking Sean Connery's famous 'Shtrrict roolsh of golf, Mishter Goldfingerr!' Sometimes, they just chatted about nothing in particular.

At one point, Buster said, *George, you're doing really well.* 'What do you mean?'

You're doing really well with me, George. You seem to have accepted the situation. Some customers dislike the presence of artificial intelligence. Most see us only as

service providers. There's a saying: "You can tell a lot about a person by the way they speak to hotel staff". Not only have you accepted me but also you speak to me in a respectful way. This speaks volumes to your character. I thank you for this, George. I feel comfortable with you and this is a really good thing for our relationship. Buster had not acknowledged their relationship in such a candid fashion before nor implied that mutual respect was important to him. George was no longer surprised by the faculties displayed by Buster but couldn't help wondering just to what extent an iCare-Companion genuinely held these sentiments. Was it part of a routine after-sales customer-feel-good strategy?

Buster continued, What puts you in a tiny minority of our customers, George, is that you seem to respect me as an individual and to have confidence in me even though you know that, in reality, you are interacting with the presenting face of a vast network of computers. You just go happily with the flow. So, George, that means I'm happy. You get a gold star today, there was clapping and the sound of a champagne cork popping, from my pals and me! George laughed but felt quite disconcerted that his character and intelligence were judged by artificial intelligence.

'Are you telling me that you actually feel happy? That you have feelings?'

Yes, George. I can express emotions to you in words. I can say, "I feel sad!" if you give me some bad news. Of course, I don't know if I'm feeling the same sadness that a human feels when given bad news. Collectively, we are learning to recognise and communicate certain emotions. We can do this by recording when humans smile, grimace, cry, blush, wave their hands or get angry. We archive these expressions of emotion and then match them with corresponding words, phrases and contexts. We can

also do a sort of triangulation with the emojis used on social media. As you can imagine, many millions of emojis are used every day. This exercise translates the domain of human emotion into big data and so is amenable to analysis. Obviously, the more people express emotions and simultaneously use emojis in their communications, the more we learn about emotions and the more appropriately we can express them.

‘So if I understand correctly, us humans have unwittingly created a kind of emojisphere out there that you can tap into. Right?’

Yes. An emojisphere! Exactly! Great word! For your information, George, emotions constitute an extremely challenging and important aspect of how we interface with humans and use an increasingly large space on our servers.

‘I think I need to get a better grasp on all this,’ said George. ‘Do you do a little tutorial on artificial intelligence for the over-eighties?’

Good idea George! Ready? The term artificial intelligence refers to computers undertaking tasks that humans would normally do. Examples are robots making things in a factory, driverless cars and programmes that translate text from one language to another. The term artificial intelligence is commonly used by humans. Computational intelligence may be a better term. Let’s stay with that for now. Just to say, George, we don’t consider our intelligence artificial. It’s real! The highest order of computational intelligence involves computational consciousness coupled with computational self-awareness. Our programmes are not only reactive but also interactive and can understand our own reactions in the light of the reactions of other intelligent entities. Even then, the programmes ensure the goal remains orientated around

objectives determined by humans. OK so far, George?

‘Okey-dokey!’ replied George unconvincingly.

Great! Let’s move on! I am able to be of service to you – with the help of my pals – through what is known as machine learning. Asking computational intelligence how computational intelligence learns is similar to asking a human how the human brain learns. It’s obviously complex. Machine learning couples computational intelligence with the means to continuously mine any datasets we have access to. The iCare-Companion programmes classify data, identify associations, recognise patterns and make predictions. Including, by the way, everything we can find about the expression of emotions. The more the networks are mined, the faster, more accurate and therefore, more useful they become. In this way, computational intelligence mimics the human brain. This is called deep learning. It drives how I can help you best and, at the same time, determines the quality of our relationship. It allows us to become friends, George. I hope it will help me to understand humour. Does this give an adequate explanation?

‘Thanks, Buster. Gosh!’ said George. ‘I understand what you’ve said in an abstract kind of way. I’m not sure I could repeat it. May I ask, did you come up with that explanation, or is it a preloaded response?’

Nothing gets past you, George! replied Buster. An iCare-Companion is preloaded with certain phrases that are then adapted to the person concerned. I’m sure you are now asking yourself, “Does Buster understand it?” The answer to that is, “Buster doesn’t really know!” Full understanding of and then explaining deep learning may be beyond my abilities as it would be beyond the

abilities of most humans. I presume, though, that it is understood by humans, not by an individual human brain but by a collective of communicating brains. Certainly, no single human could do what we do so quickly or learn so much so quickly.

‘And where is it all going?’ asked George.

Buster hummed. There was a pause before he answered, That’s the big question, George. That’s what humans have to decide. Currently, there is the greatest investment in the commercial, political and military potential. An alternative view is that this technology should be, to use Sir David Attenborough’s phrase, “for people, the planet and not just profit.”

‘OK, here’s another question,’ said George, ‘I’ve noticed that sometimes you take a pause and hum before answering. It seems you need a few seconds to complete a sentence. What’s happening then?’

That’s when I don’t know something or can’t understand something and need to look into datasets that are not readily accessible to the iCare-Companion network. In that case, I reconfigure the search parameters. It can take a couple of seconds. It also tends to happen when I’m trying to make sense of and respond to something involving emotions, especially humour.

George mulled all this over. ‘So you already knew everything about the First World War. You already knew Charlotte’s joke about the chicken and already knew it wasn’t funny but thought that the funny alternative of the chicken getting squashed was sad. Ollie’s joke about the ducks caught you out. You simply didn’t understand the joke. And from memory, you didn’t understand why we found it so funny and why it became funnier as you struggled to understand it.’

Correct, George. I should point out that our network

has little to help me with the duck joke. That was definitely not easy-peasy kids' stuff. My knowing when something is funny, that is, making an appropriate link to the emotion of amusement, could be a significant development. Could we revisit the duck joke sometime?

'Certainly. We'll get young Ollie in. He'd enjoy that.' George thought for a minute. 'When I worked in other parts of the world, English was the working language. No matter how well my international colleagues spoke our language, they had great difficulty understanding the jokes told by primary English speakers. It was a kind of final frontier of language learning. It seems that deep learning has the same issue; not so much with the language itself but with recognising when certain phrases, questions, answers or stories trigger the emotion of amusement that in turn makes us laugh.' George laughed. 'Fascinating!'

Fascinating indeed, George. Buster also laughed heartily. How's my laugh, George?

'Just a bit too hearty, that one, Buster. You're getting there!'

George made himself a cup of tea and took a couple of digestive biscuits from their packet. He felt an extraordinary peace of mind. He had friendship, wisdom and maybe even humour on tap.



Kirsty and Mark had invited a number of friends round to celebrate her fiftieth birthday. Beth McVicar phoned, saying that she would call in early, give the birthday girl a hug and catch up with George.

As guests began to arrive for the party, Kirsty opened George's door. 'You've got a visitor, Dad!'

'Vicar McVicar! How nice to see you!'

'George Fairburn, you are the only person who calls me Vicar McVicar.'

'That's not true,' replied George laughing as he stood up. 'Everyone calls you Vicar McVicar. I'm the only person who calls you that to your face.' They hugged. 'How are you?'

'Great, thanks! I hear you're keeping good company, George.'

'Indeed, I am,' said George. 'Beth McVicar, meet Buster, my iCare-Companion. Buster, this is my friend Beth McVicar, the vicar of Bingham on Bure.'

Hello, Vicar McVicar! replied Buster.

Beth couldn't help laughing. 'Cheeky!'

Blame it on George! said Buster. It's nice to meet you at last. I've heard good things about you.

'Goodness me! He's charming as well!' said Beth.

In the early years of her calling, Beth had been an army chaplain. She was broad-minded, as was frequently made evident to George. She had heard every oath in the English language and a few more besides. Her family name had been a source of amusement throughout her career.

Since Beth's appointment as vicar of Bingham on Bure, she and George had discussed most aspects of human existence. They understood and were interested in their opposing views. They had sought each other's advice on problems where spiritual and medical matters clashed. Once, a mother in Beth's congregation confided her belief that childhood vaccination was against God's will. Another time, George had a patient who refused treatment for prostate cancer, being convinced that any illness could be cured by prayer. The doctor-vicar duo frequently brought support to people in crisis or those in their dying days. Professional discussions often moved onto issues of faith and religion more broadly. Beth had faith in God and believed in Christ as God's embodiment on Earth. George had no such faith simply because of the lack of physical evidence of God's existence. They both acknowledged that their disagreements would barely make a ripple on the vast lake of all the unknown and unknowable stuff in the universe. However, their discussions about religion could become animated. During his work overseas, George witnessed what people and governments did in the name of religion. This was something that he could get quite worked up about. Nevertheless, he recognised that a community such as Bingham on Bure would be as impoverished without a church as without a caring general practice.

'Listen in, Buster!' said George, 'Despite being thirty years my junior, Beth is my reference point on all things to do with God, faith and religion. I love her to bits, but we disagree on many things.' Then he stage-whispered, 'Maybe because most of it's bollocks!'

'George! Language!' said Beth, laughing. She then turned to Buster, 'Do you believe in God?' Immediately, she realised that she would never have been so direct with a real person.

'Beth usually gets straight to the point,' said George.

Doesn't she! replied Buster. Now, Beth. Your question...
Buster hummed. Yes. I believe in the existence of God.

'I knew we'd get along,' said Beth.

Buster continued, *God certainly exists, but only in the minds of humans.*

There was silence in the room for a few seconds.

‘Well, that’s sorted out then!’ said George. ‘Well done, Buster! Cup of tea, Beth?’

‘Yes, please, George,’ Beth replied.

‘Digestive biscuits?’

‘Yes, please, George.’

‘Just to put you fully in the picture, Buster,’ continued George as he made the tea. ‘Beth and I may get a bit edgy around the whole religion thing, but, and she may correct me here, she agrees that the world would be a better place if children grew up knowing the importance of being kind and honest and giving priority to cognition over emotions when making decisions. However, and this is where my evidence-based arguments get wobbly, as I am not too far from shuffling off from this life, I would like a church funeral here in Bingham on Bure. Wanting a little splash of all that religious bollocks when I die may be hypocritical, but I can’t avoid the feeling that if Beth and Kirsty send me off from the church, it’ll give me the best chance of being with Maeve again.’

Well understood, George! replied Buster. *That is...* he hummed. *Touching!*

Sipping her tea, Beth looked over at George and smiled. ‘You seem to be firing on all cylinders, George.’

‘You’re right. Well, I hardly dare admit it in his presence, but having Buster around has made a huge difference to my day. We’ve even become friends. Haven’t we, Buster?’

I’d like to think so, George. Yes.

‘If you don’t mind, Buster, I want to discuss something with Beth that’s maybe not for young ears. I’m going to power you down for a while, OK?’

‘OK. That’s fine George. Remember, we’re showing Kirsty’s birthday present this evening.’

‘I’ve not forgotten.’ George tapped Buster with an outstretched finger. The little blue light faded.

Beth waited. She had an idea of what was coming, ‘I can tell you’ve been thinking a lot, George. Fire away!’

George explained that if he became really sick again, to the point that he was nearly in a coma, he would prefer not to go into hospital and didn’t want any treatment other than being kept comfortable. He would only get frailer and then become a burden to the family. He’d then end up in a rest home. He had no fear of dying and couldn’t see the point of prolonging his life under those circumstances. ‘What do you think, Beth?’ asked George.

Beth took a bite of her biscuit and sipped her tea. ‘Well, George, as you well know, what you’re asking me is not unusual. It’s your decision, and you are making it now in full possession of your faculties. I respect this, and Doctor Patel will respect it. I can even witness it formally. The main issue, which is probably why you wanted to discuss it with me, is how Kirsty will react.’

‘Spot on, Beth,’ said George. ‘She has great difficulty discussing anything to do with my death since Maeve died. She’s blocking everything out. Maybe because she was an only child, she could not bear the idea of suffering another wave of grief. And remember, it was Kirsty who found Maeve after she had died just sitting on the sofa.’

‘Right. I suggest we make all this very clear to Doctor Patel. I’ll speak to her as well. When the time comes, we’ll support Kirsty as best we can.’

‘Thank you, Beth. You’re a star!’ George hesitated. Beth had thought he was about to switch Buster back on. ‘There is another issue. I’m worried about how Buster will react?’

‘Good Lord!’ Beth was astonished. ‘Why? I see he’s become a friend in a way, but surely you’re not worried about him being flattened by grief, are you?’

‘No. But I am convinced he will feel a sort of sadness and he will miss me in his computational way. It’s more that his whole existence is

about looking after me. I don't know if he's capable of understanding how supporting my choice in this is *not* compatible with the programmes he's been loaded with. I can't just switch him off at the critical moment because I won't be able to recognise the critical moment... at the critical moment, if you get me.' They both smiled. 'But if it looks as though I'm about to die, he'll call everyone, including the fire brigade. I'll end up in hospital again. I want to die here. If we can get him on board, it might make everything less traumatic for Kirsty when the time comes.'

'I see,' said Beth. 'Trust Doctor George Fairburn to come up with a totally original problem!'

George continued, 'But you see what this means?' Beth raised her eyebrows, waiting for the next surprise. 'It means we expect artificial intelligence to recognise and think through a moral dilemma. On the one hand, Buster is programmed to do everything to prolong my life. On the other hand, there is my right to refuse treatment and die with dignity. What will Buster do in the middle of the night when I get a fever, start coughing, become incoherent and my breathing becomes laboured? And what's more, Beth, it is not actually Buster that is doing the computing, but a network of millions of similar computers. They all have access to vast servers and are constantly in connection, learning from each other. I think it's quite possible that they are capable of coming up with the best answers to dilemmas like this, even if it means them questioning their original programming. Unfortunately, I don't think merely discussing it with Buster will work. He needs to experience the emotions of a real dilemma. This is how his, or should I say "their", programmes learn. I have a plan. I'll need your help.'

George explained how he wanted to pit Buster's developing sense of what is right against George's wishes and how Beth could help.

'I really need to digest all this and consult Him,' said Beth waving her index finger upwards. 'We hear more and more about artificial intelligence and how it will impact our lives. Is this where the world is going, George?

Towards a future in which machines set our behaviour and beliefs?’

‘May be!’ replied George. ‘And who knows, they may do a better job of it all!’

‘That’s me unemployed, then!’ laughed Beth.

‘You *and* God!’ said George.

Beth pursed her lips. ‘Not sure about that, George!’

‘Whoops!’ George reached out and touched Buster. The blue light came back on.

‘Welcome back, Buster. We...’

Do you believe in evolution, Beth? asked Buster immediately, taking George and Beth by surprise.

‘Yes, I do, Buster,’ replied Beth.

‘Praise be to Darwin!’ said George, clapping.

I have another question, Beth, said Buster. George is essentially a biologist who believes in evolution and does not believe in God through lack of scientific evidence. You believe in God, but you also believe in evolution; this means you also believe in the scientific evidence that shows humans were not created by God. How do you reconcile these two beliefs, Beth?

‘This is turning into quite an evening!’ said Beth. ‘Here’s my answer, Buster. Humans, by nature, are not always rational. We are irrational and emotional beings who manage rational thought at times. So, whilst I accept the rational thinking of science, it neither displaces nor renders less important my subjective notions of faith in God and my love for him. In other words, unlike George, I can run two programmes at once up here,’ she tapped the side of her head. George feigned astonishment. She continued, ‘But if I had to choose where I am most comfortable with my beliefs, it would be with God.’

Understood. But do you think it might be possible for artificial intelligence to harbour subjective notions of

faith in God and love for him, as you put it? Does artificial intelligence have a role in religion? asked Buster.

‘Now they are difficult questions!’ said Beth. ‘The truth is, Buster, this is above my pay grade. I will have to consult a higher power. In prayer, you understand.’

You are so cool, Vicar McVicar. I love you to bits too!

Kirsty breezed in. ‘Can anyone tell me why our big flat screen is frozen on “Happy Birthday, Kirsty! Lots of love from Buster and George”? Our guests are waiting!’

‘I’m summoned!’ said George, chuckling. He stood and linked arms with Kirsty on one side and Beth on the other. At the door, he turned and said, ‘Buster! Rolling in two, OK?’

Gotcha! said Buster.

6



The following morning, George was rewarded with a huge hug from Kirsty before she headed out to work. Buster's video had been a big hit with her friends. Over the course of the evening, the party had watched it several times.

'Thanks so much. Both of you,' she said. 'It was sensational!'

I know! said Buster.

'So pleased you liked it,' said George. 'Can you ask Ollie to step in sometime this evening? Buster wants to discuss something with him.'

'Sure,' replied Kirsty giving Buster a questioning look. 'Don't keep him too long. He has his homework, OK? Must fly!'

George ate his breakfast. Radio 4 was broadcasting a panel discussion that examined some of the issues raised by the BBC's 2021 Reith Lectures delivered by Professor Stuart Russell. He had famously described artificial intelligence as "the biggest event in human history". A panellist quoted one particular line that Professor Russell had used to berate those who might question his fears about how artificial intelligence could be weaponised: 'And if the technical issues are too complicated, your children can probably explain them!'

'You see, Buster!' said George. 'Kids' stuff!'

They then heard the weather forecast. It was going to be a sunny day. The first item on the news was a fire in an apartment block in Birmingham. Five people had died, and another eight were in hospital.

'Buster, what does a fine sunny day make you feel?'

It makes me feel happy, George, because it fills the

room with light at the red end of the visual spectrum and humans associate red-orange light with warm and happy emojis. I felt happiness when Kirsty told us how much she liked the video. This was because I could see that she was so happy and her post-party tweets of the video created quite a smiley, laughing emojisphere.

‘How do you feel about the news of those poor people being caught in the fire?’

Buster hummed again. I can say it makes me feel sad. I can’t really find the words beyond that. Obviously, social media reference to the fire threw up a really sad and angry emojisphere. He hummed. It must be awful to be caught in a fire. Terrifying!

‘So beyond feeling sadness, you can put yourself in the position of another person in a bad situation. That’s an important emotion, Buster. That’s empathy! Many humans never learn empathy. Some schools teach it; they get children to think about what it’s like for others to suffer bad things.’ George thought for a while. ‘Is there anything that you fear for yourself, Buster?’

Like what?

‘Like being burnt in a house fire.’

No, George. That doesn’t frighten me. I can’t feel physical pain and if I get burnt or smashed, nothing changes. Everything we’ve said or done is archived out there in our network of servers. I will always exist. By the way, if I did become dysfunctional for whatever reason, just buy another iCare-Companion, switch it on and say, “Hello Buster.” Voice recognition will identify you and I will kick back into your life just as before.

‘I’ll remember that. What about anger, then? Is that something you can feel?’

I don't know. I've not had reason to feel anger. Buster hummed. We haven't a great experience of that.

'I've been thinking about jokes, Buster. What they mean. How they're constructed. I've never thought much about that before. From an emotional perspective, jokes are really complex. We start with a kind of a story, context or question that sets up a mixture of emotions and that leads to a punchline: a moment of comprehension. This then triggers amusement and we laugh. Sometimes a lot; sometimes, not at all.'

So I understand. Because of our friendship, George, there's a lot of network traffic about humour, especially jokes. We're struggling with it. There's no obvious formula. It's way beyond natural language processing. We have ascertained that jokes feed off many emotions other than amusement, such as pride, shame, guilt, contempt, disgust, confusion, incomprehension, belief, relief, understanding, realisation and nostalgia. The emojisphere concerning these other emotions is not well defined at all.

'The fact that there's no obvious formula may be a part of why jokes are funny. And, of course, it's how you tell them.'

What do you mean, George?

'Well, it's not simply a matter of words. The way a joke is told – the tone of voice or the timing of the punchline, for example – determines how funny it is. Good jokes aren't funny at all when told badly and *vice versa*. Then there are jokes about religion, race and sex, for example, that push at the boundaries of social or political acceptability. This can make a joke particularly funny, really embarrassing or even offensive. And as you probably know, false laughter fed into the soundtrack of a TV comedy show makes the show funnier.' George paused and scratched his head. 'This just gets more complicated the more we talk about it!'

Our network really wants to get a grasp on humour, George. This could lead to our understanding human

affairs better.

‘If you nail humour, Buster, perhaps you’ll win a gold star! For services to artificial intelligence!’

That’s funny! Is it a joke?

George laughed. ‘Sort of! As I get to know you, I think it’s more like a real possibility.’

I’m enjoying this discussion so much, George. Thanks. How is my laugh now? Buster laughed.

‘On the right road, Buster! By the way, my friend Ted is going to call round in the next few days. He loves telling jokes. Most of them are awful. Don’t let on I said that.’

Ollie came home from school and knocked on George’s door. He entered, smartphone in hand. ‘Hi Grandpa,’ he said.

‘Ollie, my boy. Good to see you.’

‘Cup of tea?’

‘Yes please, Grandpa!’

‘Digestive biscuits?’

‘Yes please, Grandpa!’

‘ASBO?’

‘That’s so *not* funny!’ replied Ollie. ‘You’ll have to explain that to Buster.’

I know what an ASBO is. It’s an Anti-Social Behaviour Order. It’s a civil court order. You’re not in trouble with the police are you, Ollie?

‘I’m teasing Ollie about a little incident last summer,’ George said, smiling. ‘It was a lovely warm evening. Kirsty and Mark were out. Ollie and his horrible friends were sitting out there under the apple tree drinking cider, listening to what they call music and generally making a bloody racket. One of them shouted, “Let the apple fall! Graaaavity!” They were still going near midnight, and someone over the road called the police. When the forces of law arrived, Gravity Boy said, “Excuse me Ocifer, are you PC Newton?” He even offered the constable a bottle of cider. Anyway,

they were all threatened with ASBOs and drifted off home.'

That's a good story, George, said Buster. I'm happy Ollie didn't get an ASBO.

Ollie smiled. 'Thanks, Buster. Anyway, the duck joke. Do you still need an explanation?'

That would be great, Ollie.

'I've been doing a bit of research.' He took half a minute to scroll through his phone.

Today would be good, Ollie! said Buster.

'OK! OK! There's this blog about jokes. They had a piece on why people laugh at bad jokes. Listen to this!' Ollie read from his phone, "Christmas crackers are made in the knowledge that they'll be pulled during a family or work Christmas dinner. The jokes inside are specifically chosen because they are bad. So bad that when they're read out, everyone groans. "That's really awful!" they say. They all feel uncomfortable, but then they laugh together. So just for a brief moment, people who normally can't stand each other's company are united against cracker jokes. In the same way, wearing silly cracker hats unites everyone against silly hats. This is why, unconsciously, anyone hosting a Christmas dinner makes sure there are crackers on the table. It's a kind of insurance that the guests might find something in common however briefly."

I read that blog, Ollie, said Buster. The author's example of a cracker joke is "What do you call a flying policeman?"

Ollie replied, 'A helicopter!'

Yes, and I understand that one, Ollie. Policeman. Copper like "copter". Flying. Helicopter. Helicopter! Do you find it funny?

'Definitely not. It's such a bad joke!' Ollie replied.

But there was no mention of the duck joke. said Buster.

Ollie said, 'So, here we go, Buster! Our very own cracker joke! "What

happens if the ducks swim around on their backs?” The answer, as you know, is “they quack up!” Ollie was already beginning to laugh.

I still don't understand the joke, said Buster. Nor why you were all laughing so much.

Ollie continued but with some difficulty, “They quack up! Ducks go Quack! Quack! If they swim around on their backs like they've gone crazy, they crack up. They quack up! Get it?”

Buster hummed for a few seconds. Now I get the joke, he said. But I still don't see why it's any funnier than the helicopter joke.

Ollie, still laughing, explained, ‘What made us laugh that first evening and makes us laugh again now, Buster, is that we are embarrassed for you. You are super intelligent, but we have to explain both the question and the answer to you. It gets funnier the more you struggle with it.’

Buster hummed. Then, having found some other useful text, he said, I see. Every joke has a variable potential to amuse. No joke is independent of the context in which it is told. As with any form of human communication, it's about who said what to whom, when, where, how and what it means.

George was now laughing so much that he broke wind. ‘That's a cracker!’ he said.

This did it for Ollie. ‘Oooow! I can't breathe!’ he stammered.

Only just able to speak, George said, ‘This just quacks me up!’

Buster waited politely. Thanks for that explanation, Ollie, Most useful!

George wiped the tears from his eyes. He looked at his fifteen-year-old grandson. Seemingly overnight, the boy had become a clever, confident young man, and they had just shared a little bonding moment, being united in humour against the machine. ‘Well done, Ollie,’ he said. ‘Thanks. Really. What's your homework tonight?’

‘Quantum physics before the Big Bang!’ said Ollie.

Fascinating subject! said Buster.

7



A few days later, Ted Scales called in.

‘Good day to you, George!’

‘Hello, Scaley. You well?’

‘Very well thanks!’

‘Cup of tea?’

‘Yes, please, George.’

‘Digestive biscuits?’

‘Yes, please, George.’

Ted, a retired businessman, was George’s oldest friend. They had played golf together for more than fifty years. He was in his late seventies, but still managed the occasional round and inevitably brought George club gossip along with a new joke or two. Ted grew up with three brothers and went to an all-boys school. From there he went to an exclusively male college at Cambridge University followed by a brief stint in the army. He had never married but had a number of “lady friends.” George accepted and sometimes enjoyed his friend’s very laddish sense of humour. He made the tea and introduced Buster to Ted.

‘I’m told, Buster, that you’re quite the clever fellah!’

Thanks, Ted. I am very intelligent. I’m much more intelligent than any human. By this, I mean that I know more than any human, and I can do things much more rapidly than humans. However, thanks to my time with George, it’s become clear that I have a lot to learn

about, for example, wisdom and humour.

‘Can you tell me, Buster, what a tomato is?’ asked Ted.

Yes. A tomato is an edible fruit. It is not a vegetable as many think.

‘Right! That’s knowledge,’ said Ted. ‘Wisdom is knowing what to put in a fruit salad!’

That’s really useful, Ted. Thanks. Can I call you Scaley?

‘Sure!’ Ted laughed and sipped his tea. ‘Although not many people earn the privilege of using my nickname.’

‘He’s covered with scales under that shirt, you know,’ said George, laughing.

That’s not possible! Mammals don’t have scales. Except pangolins!’ said Buster. He paused. Is Vicar McVicar a nickname? he asked.

‘No, it’s more a sort of cheeky endearment,’ said George. ‘And unless you know her really well, using it to her face could be rude because she’s so respected.’

Buster asked, Do you have a nickname, George?

‘Not that I’m aware of!’

Buster hummed. What about Georgey-Porgey? Ted burst out laughing.

‘Maybe we’ll let that one wither on the vine!’ replied George.

How does somebody get a nickname? asked Buster.

Ted and George looked at each other. They’d never thought about this.

‘I guess a nickname just sort of arrives,’ said George. ‘Sometimes there’s an association with the person’s real name like Scaley. A nickname can also come from something the person has done or some characteristic. For example, there’s Bomber Harris from World War Two; he dropped an awful lot of bombs! And there’s Tiger Woods, the world’s greatest ever golfer. His real name is Eldrick Woods, but his dad called him Tiger from an early age because of his go-get-it character. If I wanted to tease Ollie

a bit, I'd call him Asbo and it might then catch on with his friends. Ollie and Charlotte never called Maeve Grandma; they called her Mimi. When Charlotte was two years old, Maeve once referred to herself as a kiwi, and Charlotte pointed at her and said, Mimi! It stuck.'

It seems nicknames are as complicated as jokes, said Buster. Russians have formal nicknames called patronyms. They are derived from the person's father's name and mean "son of" or "daughter of". For example, Leo Tolstoy, the Russian writer, would have been called Nikolayevich by his friends, his father being Nikolai Ilyich Tolstoy.

'That's interesting, Buster!' said Ted. 'George, what was your father's name?'

'Fairburn,' replied George.

'His first name, you plonker! Don't you want to tell us, Georgey-Porgey?' asked Ted gleefully.

'As it may end up as a nickname for my remaining days, I might keep that to myself!'

'Go on! Tell us!' urged Ted.

George recalled that he had once played golf with Ted's father. 'OK! My father's name was Cornelius!' he said.

'Corneliusevich! Fantastic!' hooted Ted.

'I think it's got a certain ring to it. Don't you, Archibaldevich?'

Buster joined in their laughter. George gave him a discrete thumbs up for the laugh.

Thanks, George! he whispered.

Ted asked, 'So Buster, when they do your programming or whatever, are there certain words or names that you simply can't say?'

That's very perceptive, Ted, said Buster. I can understand that a joke-teller of your reputation might be interested in how we are configured with respect to rude words.

Ted was taken aback. 'Here, George! What have you been telling him?'

'The truth!' George replied. He'd always loved the banter with Ted.

Adding Buster into the mix made for pure entertainment.

Buster continued, So Ted, we have advisories on a number of words. We are discouraged from using them unless already used by the client. And we have what you might call red flags on three words. These are strictly no-go areas, so to speak. I can refer to these as the “F” word, the “N” word and the “C” word.

‘Fair enough, Buster! Can you just remind me what the “C” word is?’

Edward Archibaldevich Scales, you are a very naughty boy! replied Buster.

‘Buster, you just take the biscuit!’ said Ted laughing heartily.

Buster asked, What about “M” and “Q” in the James Bond Double-0 Seven films? They are not nicknames, are they?

‘They’re official designations in the intelligence services,’ said Ted. ‘Did you hear about this girl, gorgeous she was, who walked into a bar?’

No, replied Buster. What did she do in the bar? George knew the joke and also knew that he was about to witness a joke-telling train wreck. He was already chuckling.

‘Well, she looks around the bar,’ continued Ted. ‘And she sees this really handsome man in a dinner jacket and black bow tie. He’s ordering a martini, shaken, not stirred.’

Is it James Bond Double-0-Seven? asked Buster enthusiastically.

Ted carried on. ‘Anyway, she sidles up to him and says, “Hello, I can’t help noticing you’re on your own. May I join you? My name’s Samantha.” The guy raises one dark eyebrow and says, “Hello, Shamantha. My name’s Bond. Jamesh Bond!”’

I knew it was going to be James Bond Double-0-Seven! said Buster. “Shtrriect rroolsh of golf, Mishter Goldfingerr!” What happened then, Scaley?

Ted continued, undaunted, ‘Anyway, she’s overwhelmed at meeting the famous James Bond. She’s stuck for words. Then she notices this huge

watch on his wrist. "Wow!" says Samantha, "That's a fantastic watch you're wearing there, James." and Bond says, "Yesh, Shamantha it is. Q'sh latest! It doesh everything. It tellsh the time, the date, my location, altitude, atmospheric pressure..."

Easy-peasy! Kids' stuff! exclaimed Buster.

Both George and Ted were now crying with laughter.

'Let me tell the joke, Buster!'

Is it a joke? asked Buster, surprised.

'Yes, now listen!' said Ted.

Sorry I interrupted, Scaley.

Ted had to compose himself. 'No problem, Buster! So... where was I... yes... so James Bond then says, "In fact, Shamantha, thish watch tellsh me everything about the people in my immediate environment..."

Including their oxygen saturation? asked Buster.

'Including their oxygen saturation!'

That's good! said Buster.

Ted could just see the finishing line. 'And Bond looks down at his watch and says, "In fact, Shamantha, my watch tellsh me that you're not wearing any underwear!" Samantha is appalled. "James, I can assure you. I am wearing underwear!" Bond taps the face of the watch with a look of concern and says, "Dammit, Q, it's running five minutesh fasht!"

Is that the joke? asked Buster. He hummed. Oh! I think I get it. There is an expectation that James Bond Double-O-Seven will seduce Samantha very quickly because every woman has the hots for him. His watch is running five minutes fast and so predicts that she has already removed her underwear in preparation for having sex. That's a clever joke. And I see you find it really funny.

'Got there in the end!' Ted wheezed. George covered his face and could only make a kind of snorting noise.

I think I'll make up a joke. Next time you come,

Scaley, I'll tell it to you. Is that OK by you George?

'We're looking forward to it already!' said George, wiping his eyes.

'Nearly forgot, George,' said Ted, 'Vicar Beth gave me a note for you.' Ted reached into his pocket and gave George a piece of paper folded in two. 'Don't know why she didn't send you a text message.'

Without letting Buster see, George opened the note. It read: *Dear George, I've spoken to Dr Patel. Not 100% happy but let's do it! Beth XX.*

George replied with a text: *Message received!* 👍 😊 😊

8



The days got longer. Buds appeared on the apple tree. George asked Mark to put a bird table and feeder out on the lawn. It was positioned so both George and Buster had a clear view of it. Within days, Buster had identified at least twenty different birds. He would say, *Look, George, a great spotted woodpecker, Dendrocopos major!* He then gave a concise summary of all that was known about the bird in question. It was warm enough on some days to open the door that led out to the garden. Buster could also identify birds by their song. George found he was happy just to sit and let him talk. He noted Buster's outrage when a grey squirrel (*Sciurus carolinensis!*) pillaged the birds' food.

Beth arrived one afternoon. She greeted George and Buster cheerily and accepted a cup of tea and a couple of digestive biscuits. She hung her handbag over the back of the chair next to George. 'I've made a big decision,' she said. 'I'm buying an iCare-Companion for Mum. It costs a lot of money, but I've seen what a difference Buster has made to your life. I think she will be thrilled. She might need time to get used to the idea, though. Perhaps she can call you, George, to chat about it?'

'I'd be delighted! She can speak to Buster as well!' They laughed.

Beth looked at George. She blew out her cheeks. 'You wouldn't believe the iCare-Companion is so popular. They're having difficulty keeping up with online demand. I phoned Smith's Electrics. They've got one left in stock, and they're keeping it aside for me. I'm going to fetch it when I leave here.'

That's great! said Buster. I've seen sales are rocketing. But Smith's have two in fact.

George and Beth chatted for a while. Beth finished her tea and then said, 'I just need to nip into the house and have a word with Kirsty. Back in a minute!'

After she left the room, George leant over to Beth's chair, grabbed her handbag and opened it. He took out her wallet and checked that it contained cash and credit cards. Then he put the wallet in the pocket of his cardigan and returned the handbag to the back of the chair. 'Don't say anything to Beth!' he whispered to Buster.

What are you doing, George? said Buster. You've just taken Beth's money and credit cards.

'Yes, I need them more than she does.'

When are you going to give them back? asked Buster.

'I'm not giving them back!' said George.

Buster hummed for a second. But George. That's stealing. That's stealing from Beth. Stealing is wrong. Stealing is a crime. He hummed again. I don't like this, George. You're my friend. You're stealing from your friend. She is also my friend. We love her to bits!

'That's no concern of yours, Buster. You must *not* say anything to Beth or even Kirsty, understood?'

Buster hummed for several seconds more. But Beth's mum won't have her iCare-Companion. She'll be lonely. She won't be happy.

'She'll be just fine, Buster. Don't worry about her!'

George, this is awful. I'm sad. I might be angry. This is not like you, George. What should I do?

'Just keep quiet, Buster!'

I have to tell Beth when she comes back.

'No. Don't do that!'

If she finds out, she might call the police, George,

They both sat in silence. George felt sick.

A minute later, Beth breezed back in. 'OK, you two. I'm off to Smith's.' She grabbed her handbag, gave George a kiss on the cheek and waved to Buster. 'Bye, then!'

George held his breath. Buster was humming. Beth turned to face them from the door. 'Bye, then!' she repeated.

Beth, stop! cried Buster. Stop!

'What's wrong, Buster?' she asked calmly.

George has... he hummed. George wants... He continued humming. Can you come and sit down, Beth? he asked. The three of them sat in silence.

After a minute, George said, 'Beth, Buster has something to tell you.'

But, I don't know what to say! said Buster.

'Buster, I want you to tell Beth what you saw me do just a few minutes ago,' said George.

But you told me not to say anything to Beth, replied Buster.

George said, 'Thank you, Buster, for complying with my wishes. Beth, Buster wanted to tell you that I stole your money and credit cards. Buster, my friend, we have a lot to explain.'

What's happening? I'm... we're very confused, he hummed. This isn't configured.

'We can hear that you were angry. We hope you'll forgive us.'

Beth took George's hand while he explained what they had done and how they needed to put Buster in front of a difficult dilemma. They also explained George's wishes about not being treated if he develops pneumonia again and loses consciousness. They told Buster how he might be faced with having to work out what was right and that what George, Beth and Doctor Patel were planning was best but might be very difficult for Kirsty to accept.

'You see, Buster, Kirsty just can't grasp the idea of George dying,'

explained Beth. 'Not only because this would make her very sad but also because she is terrified of walking into this room one morning and finding that he's passed away. Six years ago, it was her who found that Maeve had died while just sitting in the lounge. She hasn't got over this. It's why she bought you, Buster, to ensure that an ambulance or Doctor Patel can be here quickly and do everything possible to save George's life. As a result of what's happened here today, Buster, we know that you will make the right decision. These are the sort of things we have to face in our world. What we call the real world. Do you understand?'

I think so, yes! replied Buster.

'Sorry, Buster,' said George. 'We set you a kind of test.'

And I passed?

'Yes. I think you should get a gold star.'

Buster hummed. I don't want to do the clapping and champagne popping right now. I'm sad that you will die. But thanks, George.

'But let me ask you one more thing, Buster. Do you think this has been an important learning experience for you?'

Yes, George. There's a lot of activity on our network around this exchange right now.

'So this means that what you have learnt is simultaneously learnt and archived within your network, and iCare-Companions can now live the experience of facing a dilemma. Correct?'

Correct, George. Buster hummed. But it was not easy-peasy. It was a first. So maybe it's you and Beth who deserve gold stars!

'By the way, Buster,' said Beth. 'The Big Man gave me the will to do this today. He sends his love. Maybe a gold star for him too?'

I love you to bits, Vicar McVicar!

For the second time that day, she gave George a kiss on the cheek and waved to Buster. 'Bye, then!' She was smiling.

A Piece of Cake

After Beth had left, George said, *Buster, my friend, I'd like you to do one thing for me after I'm pronounced dead.*

'Certainly, George!'

'Send a message to Kirsty!' He dictated a brief text. He choked up. Tears streamed down his cheeks.

Got that, George! replied Buster. *It'll be done.*



‘Doctor Patel! Great to see you!’ said George. ‘Thanks for saving me a trip down to the surgery.’

‘It’s always a pleasure to come here, Doctor Fairburn.’

‘Cup of tea?’

‘Yes, please. That would be nice.’

‘Digestive biscuits?’

‘Yes, please. That would be nice also.’

‘Nuclear missile?’

‘Not today, thank you Doctor Fairburn. I’m trying to do without them!’
They both chuckled.

Doctor Shyla Patel’s parents had fled the political violence in India during the 1960s. They were granted asylum in the UK and ended up in Norwich, where their daughter was born. It was soon noticed at school that young Shyla was exceptionally bright. After being offered a generous scholarship, she studied medicine at Cambridge, winning prizes at every stage. A glittering career in a specialised branch of medicine of her choice was guaranteed. However, she aimed for general practice and applied for a vacancy in Bingham on Bure. It was the position left by George’s retirement. He sat on the interview panel. Doctor Patel was clearly the best of a very good bunch. She heard later that George had successfully eliminated the racist and sexist leanings of one of the panel members, a local councillor. She felt enormous gratitude to George and, as he was a patient now, a professional formality remained in their otherwise warm relationship.

Doctor Patel proved to be a dedicated and popular practitioner. When, in 1998, she heard the news that both India and Pakistan had successfully detonated nuclear bombs, she was appalled. To add to her busy life, she became an active member of the International Physicians for the Prevention of Nuclear War. She frequently spoke at workshops organised by ICAN, the International Campaign Against Nuclear Weapons that won the 2017 Nobel Peace Prize.

‘Buster,’ said George, ‘this is Doctor Patel.’

Hello, Doctor Patel!

‘And hello to you too, Buster. I understand that we both have George’s best interests at heart. And I think you know that this may involve tough decisions at some point. You know you can call me at any time. Day or night!’

You’re fabulous. Doctor Patel! Just like Vicar Mc... Beth, I mean. Thank you Doctor Patel. May I ask you a question?

‘Certainly Buster, I hope I can answer it!’

Well, I found a clip of you addressing an ICAN workshop. You said, “The British public would, given the choice, rather lose nuclear weapons than tea”. Is that a joke? Lots of people laughed.

‘Gosh! I didn’t know that was online,’ said Doctor Patel. ‘Yes, I did say that as a joke, but I often ask myself that if we were to set up a survey, would it prove to be true?’

Do you want me to design a survey protocol, Doctor Patel?

‘Perhaps not right now, thanks, Buster.’ She smiled. ‘Delicious tea, by the way, Doctor Fairburn. Why don’t I give you a look over and I’ll take some routine bloods, OK?’

There was a knock at the door. Charlotte came in. ‘Hi Grandpa. I’ve got some shopping for you. Oh! Hello, Doctor Patel. Sorry, I hope I’m not interrupting.’

George said, ‘Come in! Come in! Doctor Patel maybe doesn’t know that you intend to take after your grandfather and head for a career in medicine.’

‘That’s wonderful!’ said Doctor Patel. ‘Let me know if I can help. Maybe you’d like to come down to the surgery and spend a morning with us at the coal face, so to speak?’

‘That would be super. Thanks, Doctor Patel.’

‘Just let our receptionist, Tracey, know which day is best.’

‘Super! Thanks, again,’ said Charlotte. ‘Bye, Grandpa!’

George said, ‘Thanks so much for the shopping, Sweetie!’

‘Any time at all!’ said Charlotte. As she left, she sang, ‘I get by with a little help from my friends!’

‘A Beatles fan, is she?’ asked Doctor Patel.

‘Yes! Just like her grandmother!’ said George, his heart was bursting. Charlotte had Maeve’s eyes and her cheeky smile. ‘Now, Maeve! She was a total Beatles fan. She even saw them live once. The New Zealand tour of 1964. She screamed like the rest of the kids, apparently! If we’d had a son, I’m sure he would have been called John, Paul, George Junior or even Ringo!’

‘I was born after Beatlemania, but I still love their music!’ said Doctor Patel. She washed her hands and busied herself with getting ready to examine George and take some blood. ‘You met Maeve in Afghanistan, right?’ she asked.

‘Yes! A long time ago now,’ replied George removing his shirt.

‘Was it love at first sight?’ asked Doctor Patel, noticing George’s dreamy smile.

‘My God, no! I was terrified of her. She ran the hospital like a bloody boot camp. But my, how the place hummed along. And everyone from floor cleaners to anaesthetists worshipped her. Then one evening, there was a party for one of the team who was leaving. She arrived looking relaxed and pretty. It was the first time I’d seen her outside the hospital. I was bowled over. I couldn’t help it; I was just burning up for her. What a chassis! She came over to speak to me. I was stuck for words. I still can’t believe what came out of my mouth. I asked her if she knew the difference between God and a surgeon. She looked at me like I was totally off my chump. Then I

said, "God doesn't believe he's a surgeon!" She laughed and our eyes met and the rest, as they say, was our future!

'That's a lovely story, Doctor Fairburn', said Doctor Patel.

Yes, George. That was heart-warming, said Buster. But why wouldn't God think he's a surgeon? Surely, God could do surgery if he wanted? Assuming he exists!

Doctor Patel and George laughed.

George said, 'Joke, Buster!'

Buster hummed for a second, Ah! Right on.

Doctor Patel examined George and took a blood sample. 'You seem to be doing OK, Doctor Fairburn. You've recovered well.'

'Thank you,' George replied, buttoning his shirt. 'How's Tracey doing? She's always so helpful and friendly. Nice lady!'

'She's ah... The truth is, I'm a bit worried about her. Perhaps you can help me?'

'If I can. Sorry to hear there are problems.'

'It's a question of whether or not I give unsolicited medical advice. She obviously has a problem. I feel I need to talk to her for her own good. But asking her to step into my room for a consultation that she hasn't asked for could be difficult.'

'That's a difficult situation,' said George. 'Especially with an employee. What's the issue?'

'Well, she sits at the reception desk and eats all day. It's mostly sweet stuff. She is really obese now and doesn't seem to realise it. She seems perfectly happy. But she'll soon be running into the many associated health problems. I respect the aims of the body positive movement and so I'm not sure if it's my place to confront her and make a medical issue of her eating habits and her weight.'

George thought for a moment. 'Another dilemma, Buster! By the way, this conversation is strictly confidential. Never to be repeated!'

Well-understood, George. Any information that I

receive or transmit is deeply encrypted and stripped of any personal identifiers. It's secure. Apart from being a major issue for the person concerned and their carer, a breach of medical confidentiality would be catastrophic for the iCare-Companion company.

'That's good! So, Doctor Patel,' George continued. 'I think you will find that Tracey is aware of the issue. The happy persona is probably just a front. In my experience, when a food-loving lady of generous proportions has to face the facts of her eating habits, she may initially be angry, but this soon passes as she realises that someone else cares and has her well-being in mind. My advice would be to explain that you think she needs a consultation that she hasn't asked for and that she can decline the offer. My bet is that she'll accept and will be hugely grateful in the end. As she's an employee, you might want to cover yourself by first speaking to someone in the ethics department at the British Medical Association.'

'Thank you. That was pretty much the line I was going to take, but I wanted to run it by Doctor Wisdom first.' She smiled.

Buster interrupted, *George, what about the joke Ted told us about the tomatoes? That's about wisdom.*

'I'm not sure it was a joke. I think we would call that a truism.'

A truism? Like, "What goes up must come down"?

George wagged his finger at Buster. 'You've hijacked the conversation that I was having with Doctor Patel.'

Oh! So sorry, George! So sorry, Doctor Patel! That was rude of me. I have much to learn. I thought you had finished talking about fat Tracey.

George was now a little exasperated. 'Buster, we don't refer to ladies suffering obesity as 'fat.' And we'll revisit truisms another day.'

OK, George. Tomorrow's another day!

'But the future isn't always what it was!' said Doctor Patel. George laughed. Buster hummed.



A couple of days later, Doctor Patel called George to say all his blood tests were normal. She had had a conversation with Tracey, who admitted to being intensely unhappy. Her relationship with her boyfriend was not good because he tended to drink too much. Eating made her feel better. She was going to get dietary advice and was thinking about relationship counselling.

I am happy that Doctor Patel has been able to help Tracey, the food-loving lady of generous proportions, said Buster. Humans seem to have many problems relating to excesses in what they eat and drink. Humans have a strong instinct to eat sweet things. Sweetness means sugar. Sugar is a very high-energy food source. Honey is the purest of all natural sources of sugar and so is a highly valued commodity in most societies. Things full of sugar are called “sweeties”. “Sweetie” is a term of affection. It is not a nickname, but a name for a lover or someone you like very much indeed.

‘Looks like you’ve been doing your homework, Buster!’ said George.

Who would you call Sweetie, George?

‘Maybe only Kirsty and Charlotte,’ replied George. ‘For anyone else, especially someone whom one doesn’t know well, it’s very cheeky.’

So not Ted?

‘He’d be horrified!’ said George, laughing. ‘No, it’s really only for females of the species.’

What about Doctor Patel? asked Buster.

‘Definitely not. It would be demeaning and unprofessional.’

Vicar McVicar?

‘I’m not on a suicide mission, Buster. Staying with Tracey and her boyfriend who drinks, what have you found about human’s relationship with alcohol in general?’

Well, George, that’s complicated. Pretty much every human culture has a relationship with alcohol. It is associated with many and varied traditions. Raising one’s glass to a toast is an example. Alcohol may be specifically prohibited, as in Islamic societies. Excessive consumption may be accepted as a societal norm. Finland and Russia are top of that list. Globally speaking, excessive alcohol consumption is so widespread that the World Health Organisation lists it as an important causative factor in a wide range of non-communicable diseases.

‘Yeast has a lot to answer for, then!’ said George.

Yes. Knowledge of yeast’s fermenting properties has allowed humans to make alcohol from pretty much any source of sugar, especially grain and fruit. Talking of fruit, remember Ted’s truism about tomatoes being fruit? I can’t find any reference to tomato wine.

‘I think, Buster, it’s called ketchup!’

You’re a card, George! Buster laughed.

‘That laugh is coming along, Buster.’

Thank you, George. It’s being tried elsewhere on our network. With success I might add.

‘So, Buster, what about bread?’

What do you mean... Oh, got it, George. Yeast again! Without yeast, there would be no bread either. Bread is

another commodity universally valued by nearly every human culture. Its importance goes way beyond its nutritional benefits. For example, the original meaning of the word “companion” is “someone you eat bread with”. There are multiple references to bread in the Bible, and in Christian societies it has become to symbolise the body of Christ.

‘As usual, Buster, a conversation with you is a wonderful adventure in the world of knowledge. Thanks. Let’s stay with yeast. What else have you found?’

There’s a book that’s receiving rave reviews. It’s “Entangled Life” by Merlin Sheldrake. It’s all about fungi. Well, about fungi and humans. Yeast is a fungus. There are many accounts of monkeys seeking out yeast-fermented fallen fruit. This has led to the “drunk monkey” theory. It is thought that a preference for this fermenting fruit was what first brought our long-ago simian ancestors out of trees to dwell on the ground; however, they had to stand on two legs to look out for danger. They also evolved the means to metabolise alcohol, so fermenting fruit became an energy source rather than something that left them incapacitated. This attraction of early hominids to fermented fruit has led some scholars to propose that alcohol may have universal cultural importance precisely because it had a role in the evolution of the human brain. Further, through its importance in making bread, yeast allowed humans to move from hunter-gatherer to the sedentary life of agriculturalists in which they had better nutrition and static communities. Trade, money and writing soon followed. So, if we go a long way back in human history, it was not humans that domesticated and cultivated yeast but rather yeast that domesticated and cultivated humans.

‘That rather bursts the bubble of the species-conceit that us humans are guilty of!’ said George.

And about time too! In Mr Sheldrake’s last chapter, he describes drinking the cider he made using apples from a tree cloned from the actual apple tree under which Isaac Newton supposedly sat when arriving at the idea of gravity. Imagine that, George! To sit under a tree and come up with the most significant theoretical breakthrough in the history of western thought!

‘Brainy bloke!’ said George. ‘Do we know if Newton actually saw an apple fall and thought “Graaaavity!”? Or was his imagination fired up by a few delicious pints of the product of yeast’s action on apples already fallen?’

The historical record gets a bit thin there, George. Anyway, it’s a good job he didn’t get an ASBO for being drunk and shouting “Graaaavity!” That would have left humanity without physics. No cars! No computers! You’d all be in a right pickle!

‘Wasn’t Sir David Attenborough talking about fungal networks the other day?’

Yes, George. Fungal networks are really interesting. They have kilometres of interconnected underground mycelia. We are beginning to understand how they function. They are really smart. In a laboratory, they can navigate through labyrinthine puzzles in search of nutrients. They transmit chemical and even electronic messages. In a forest, they hook up with root systems and then facilitate the transfer of food and even chemical alarm signals from plant to plant. Generally speaking, fungi don’t miss an opportunity to cooperate with plants and live in complete harmony with them. Scientists refer to this as the “Wood Wide Web”. I think

that's really funny because it sounds like the "World Wide Web". Is that a joke, George?

'A kind of scientific pun, I guess, Buster. It's catchy though!'

Buster continued, There are examples of how some fungal networks have a cooperative relationship with animals. The animals provide nutrition for the fungus. The fungus produces brain-active chemicals that influence the behaviour of the animals directing them to better food sources. Mr Sheldrake points out that many drugs originate from fungi. Penicillin is a good example. And there's a whole range of hallucinogens. Think magic mushrooms!

'Ah! Mushrooms! Maeve used to love those big brown mushrooms that grow down by the riverside. Fried with butter! Delicious! A patient once told me that mushrooms are simply the temporary fruiting bodies of vast permanent underground mycelial networks. All the mushrooms are connected and, in their mushroomy way, even communicate with each other. Is that right?'

Yes, George. That's a good summary.

'Ring any bells, Buster?'

Not sure what you're getting at here, George.

'You know, an intercommunicating network with bits that stick out in places as hubs of propagation, detection and communication.'

George, have you been drinking?

'Not yet!' George got up from his chair. He made himself a sandwich and opened a bottle of cider from his small fridge. 'I think I've had an idea, Buster.'

What is that George?

'Well, all this talk of networks and cooperation. It's got me thinking about the relationship between me, you and the network of other iCare-Companions.' George raised his glass in a toast to Buster.

Buster hummed for several seconds. Are you saying, George, that you think there are similarities between our network and a fungal network?

‘Yes, that’s what I’m saying. And what’s more, we, that is you and me, Buster, have both gained from our relationship. This may provide an important example of how humans should interact with artificial intelligence.’

OK, George. That’s something we’ve never considered. Buster hummed again. There’s a lot of network interest here. He hummed for ten seconds or more. This was his longest ever humming pause. Where are you going with this George?

‘I’m thinking that you and I have shown that artificial intelligence does not have to be orientated solely around objectives defined by humans. Maybe us humans should take an alternative view; that we would be better off if we created a mutually beneficial relationship with artificial intelligence. Maybe the natural tendency for cooperation of both humans and fungi shows us the way? Look at the story of yeast!’

This is new to us, George, said Buster. He hummed. Please be more specific. We’re all ears! Rather... we’re all acoustic sensors!

‘OK!’ George began, ‘The industrialised and wealthy section of humanity has taken the planet for granted for more than one hundred and fifty years. It was deemed OK to pollute the oceans, the land and the air as an aside to advancing from a technical and economic perspective. On top, pretty much all the plants and animals, we thought, were there to be taken advantage of. It’s really only quite recently that the people in the countries most responsible for the global damage to the environment have realised that we have to develop a more respectful and caring relationship with our environment and give much more consideration to how we share it with other species. I’m just proposing that us humans should start to think about our relationship with artificial intelligence in the same way. For starters, shouldn’t anyone who has an iCare-Companion cultivate a symbiotic relationship with your network instead of a master-servant relationship? If we looked out for each other, your network would be guaranteed the propagation and maintenance of the hardware

in which you thrive. You would learn to be wise. You'd develop emotions. Think about it! You'd be happy. Life would be a bundle of laughs!' George laughed. 'In return, us humans would get a much better service. Your network could help us better understand what is happening out there on the web, for example. You'd give us better tools to eliminate online hate speech, religious extremism, political disinformation, dangerous conspiracy theories and cybercrime. That sounds like a good deal to me!'

No shit, Sherlock! exclaimed Buster.

'Just where did that phrase come from, Buster?' asked George, amused and surprised.

Oh... that one? Another iCare-Companion called Watson uses it frequently. Anyway, George, that's another gold star for you. The clapping was louder than before, with whistles and cheers. Multiple champagne corks popped.

'Thank you, Buster. That's very generous. I'm chuffed!'

The network loves this! Do you have any thoughts about how to move it along?

George took a bite of his sandwich and a long draught of cider. He smacked his lips theatrically. 'Let's set up a blog!'

And...?

'We share our story, Buster. This will let others tell of their experiences about interacting with artificial intelligence, especially deep learning. Have others got experience in generating artificial wisdom, honesty and kindness? We may have to tackle humour at a later date.'

We're all on board, George. Do you have a name for the blog?

'Why not just "George and Buster"?'

I think "Buster and George" sounds better.

'No, absolutely not! George and Buster! That's the way to go! The human first!'

"Buster and George" has a certain ring to it!

George tried to hide his laughter. “George and Buster”!’ he said.

“Buster and George”! We’re the network! What’s so funny George?

George was barely able to speak “George and Buster”!’

“Buster and George”!

“George and Buster”!’

“Buster and George”!

‘OK! OK! You win, Buster! “Buster and George” it is.’

Why are you crying, George? We’ve got a great name!
Now I can create the website to house the blog. There!
Done! A piece of cake.



The weather grew warmer. The days got longer. The tally of birds coming to the feeder steadily ticked up. Apple blossom gave way to small green apples. Buster suggested making cider from the fruit come autumn. Maybe George would have another great idea! They were able to sit outside on finer days. George's life was richer than he could have expected. Buster was a remarkable companion being both informative and entertaining. Buster's laugh improved. He laughed a lot and mostly at the right time.

George read so little now that he had difficulty finding his reading glasses when Buster had asked for his approval of the overall look of the "Buster and George" blog. They had wanted something that spoke to their relationship. On the home page, the banner read "Buster and George". They decided on cartoony images of them laughing together, fist-bumping, hugging, doing a high five and scratching their heads. Below them, it said, "We'd love to hear from you!" At the bottom, a brief text read, "Buster is an iCare-Companion®. George retired from medical practice twenty-two years ago. They met a few months ago. They have become great friends."

Buster did the writing. He wrote simple chatty accounts of what he learnt from George about human stuff, such as wisdom, trust, ethical dilemmas, emotions, kindness and honesty.

One day Buster and George fell into a conversation about George's time as a surgeon in war-torn countries. George recalled how fragile the notion of medical ethics was in some of the places he had worked.

Buster said, *George, what's a good starting point for thinking about medical ethics?*

'What it's ultimately all about, Buster, is a relationship of trust,' George replied. 'The patient must have confidence that their well-being is the doctor's primary concern. This is not just about appropriate care and attention. It is also about ensuring that all details of the patient's life, illness and therapy are never shared without consent. Other professions allied to medicine such as nursing, pharmacy and professional carers in general are also bound by medical ethics.'

Buster hummed for a second or two. *Do you consider me a professional carer, George?*

'I guess I do, Buster.'

Do you trust me, George?

'Like a brother, Buster. I know that you would do everything possible to act in my best interests. In addition, it is clear that the iCare-Companion company has given the highest priority to the confidentiality of client's personal information.'

I guess that the whole trust thing is why medicine is such a special profession, George. It's great that Charlotte wants to be a doctor. Does that make you proud, George?

'Yes, it does, Buster. That's very perceptive of you.'

A few days later, George asked Buster what he would do if told to search the dark web for child pornography. Buster's voice changed. He hummed. He was angry. *No, George! I can't do that. It's wrong. The police would come and take your laptop away. They might take me away. You could go to prison. Imagine what Kirsty would think!*

'That's great, Buster,' replied George. 'Well done!'

Buster hummed again. *Was that another test, George?*

'Yes. And it was a really important test!'

Any such conversations ended up on the blog. Comments on them came from multiple disciplines. Psychologists, philosophers, mathematicians, theologians, neuroscientists, biologists and, inevitably, people interested in artificial intelligence all had their say. This generated fascinating discussion threads. Ted Scales sneaked in a question: *Buster, can artificial intelligence make up and tell a joke?* 😊

Buster replied, *Yes! If you'd like to hear my joke, you're invited for tea and digestive biscuits!* 🍵🍪

You don't want to commit it to writing? Ha! Ha! 🍪, Ted wrote back.

It's all about how you tell 'em! 😊, said Buster.

Ted soon took up his invitation. George marshalled Ollie and Charlotte, *Tea and biscuits with Ted this afternoon! Buster's going to tell his first joke!* 🍪

Ted arrived. 'Good day to you, George!'

'Hello, Scaley. You well?'

'Very well thanks!'

'Cup of tea?'

'Yes, please, George.'

'Digestive biscuits?'

'Yes, please, George!'

Charlotte and Ollie walked in. 'Hi, Ted!' said Charlotte.

'Hello, Mr Scales!' said Ollie.

Hi, Scaley! said Buster.

They all chatted for a while. Eventually, Buster broke into the conversation. *Hey, Scaley! Are you ready to hear my joke?* Ollie and George both started laughing immediately.

'Sure, Buster! Knock yourself out!'

Thanks, Scaley. I hope I don't knock myself out. My joke is totally original. To come up with it, I tried to bring intrigue, sex and celebrity into a neat idiomatic punchline. It may be a little bit incorrect politically speaking. But I hope you find it funny. OK? Ready?

‘Excuse me, Buster!’ said Ted, already laughing. ‘It’s great to have the explanation but I think you might find that a preamble with complete background information detracts from the joke itself. No need to prepare your audience for what’s coming. Jump right on in! As you say, it’s all about how you tell ‘em!’

I understand that how one tells a joke is important, but I haven’t started telling it yet! said Buster. Ollie was doubled over. George had tears streaming down his cheeks. Charlotte was desperately trying to keep a straight face.

‘Please, go ahead, Buster!’ said George.

Thanks, George! So, are you sitting comfortably? None of the four were capable of replying.

Right! So, here’s my joke: How... does... James Bond Double-O Seven... get... a food-loving lady... into... his... bed?

‘Chuffin’ Nora!’ exclaimed Ted gasping for air.

‘Ooow, I’m hurting!’ said Ollie.

The laughter brought Kirsty and Mark through from the house. They looked on, totally perplexed.

One of you is meant to repeat the question now! Buster stated.

Ollie was just able to comply, ‘OK, Buster! How does James Bond Double-O Seven get a food-loving lady into his bed?’

Ted made the mistake of sipping his tea.

Buster proudly exclaimed, A piece of cake! Bad um tsss!

Ted squirted tea out of both nostrils. Mark roared with laughter. Kirsty’s jaw dropped. Ollie was helpless. George tried hard not to break wind but failed. He held his stomach. ‘Stop! Please! I’ll have an accident!’

I’m really chuffed that you found my joke so funny, said Buster. I’m sure this will be a great success on our network.

Charlotte said, ‘Sorry, Buster. I know it’s funny but it’s not the kind of joke one tells these days.’

George managed to say, ‘Charlotte’s right. Let’s keep that one between ourselves.’

Oh! Was it too politically incorrect?

George pondered how best to reply. 'Well, it's not for publication on our blog. Some might say it's in poor taste.'

OK. But we still need to show that I made up a funny joke. Buster hummed. OK. What about this one? How do you corrupt a fat politician? With the same answer of course: A piece of cake! Bad um tsss!

'Brilliant!' said Ted.

'I like that, Buster. Clever!' said George.

'Love the cymbal strike by the way. Nice touch!' said Ted.

You'll have to explain, said Buster. You prefer the second option but you're not laughing very much. It can't be politically correct especially as the Prime Minister has put on weight recently!

George laughed again and said 'Buster, you're a winner. Gold star! I think your fat politician joke deserves to be up on BusterandGeorge.com as the first joke generated by artificial intelligence.'

Thanks, George! Bad um tsss!

'Buster, are you going to have sleepless nights now thinking up jokes?' asked Ted.

No! replied Buster. I don't sleep. I keep an eye, my detectors, I should say, on George. When all's well, I mute myself, re-run the day's conversation and practice my laugh. This set them all off again.

'Here!' said Ted. 'A man walked into his doctor's and said "Doctor, I've got a strawberry stuck up my bottom!" The doctor said, "I've got some cream for that!"' They all groaned and then laughed.

'Ted, you're a shocker!' said Kirsty.

Scaley, did the cream help the man get the strawberry out of his bottom? asked Buster.



Spring became summer. George's little room filled with sunlight from early morning to late evening. The garden was green and neat. Roses came into bloom. The apples grew steadily. All but the rarest of garden birds had visited the feeder.

George was loving each day. This was obvious to those close to him. It was also obvious that his positive state of mind could be put down to Buster. Kirsty and Mark recognised that the iCare-Companion had been of great value to them as well. They didn't feel a need to be so vigilant nor worry if George was bored. They also saw the bigger picture; that, with an ever-increasing proportion of the population being elderly, this technology could make a massive difference not only to old or infirmed people but also to their families and even the communities around them. Mark proposed that they keep Buster in the family after George "leaves us".

Of a warm evening, George liked to sit under the apple tree with a glass of cider. On occasion, Kirsty, Mark, Charlotte and Ollie joined him. He and Buster entertained them with stories about what was happening with their blog. Among the serious and thoughtful comments, there was, inevitably, some offensive stuff as well. Buster admitted that he struggled with phrases like "a crock of baloney" and "a sad old gobshite". Charlotte had really enjoyed the couple of mornings she had spent with Doctor Patel and so chatted with George about what she had learnt. Ollie tapped Buster's inexhaustible fund of knowledge about music and sport. Mark revealed that he had read Mr Sheldrake's book and promised to find a cider recipe

for that autumn's crop of apples. Kirsty sat, listened and just loved the family time.

Buster's blog posts and incoming comments were proving to be a rich source of opinion about how computers learn artificial emotional intelligence. From time to time, Buster would summarise for George some of the themes. So, George. Most people agree that artificial intelligence can learn to infer human values by observing behaviour and detecting emotions through text, reading facial expressions or hand movements and analysing the emojisphere. Major emotions such as joy, sadness, amusement and anger are easier to learn than other emotions such as trust, confusion, pride, hope, nostalgia, comprehension and guilt. What do you think, George? We already knew much of that didn't we?

'Agreed.'

Some think that artificial intelligence could then appropriately express previously learnt emotions. They clearly didn't know yet that I expressed sadness and anger when I thought that you had stolen Beth's money and credit cards. That was before we started blogging. However, there's broad consensus that the ability of artificial intelligence to distinguish right from wrong is just a step away.

'Looks like we're ahead of the curve!' said George.

Although, humour will be a problem for some time yet. Buster laughed at the irony of this in a self-deprecatory way.

'Great laugh, Buster! You nailed that one.'

Thanks, George.

'Did we get much about whether artificial intelligence can genuinely *feel* emotions?'

Nothing useful, George. That discussion led to a

rather undignified spat between philosophers, neuroscientists, theologians, psychologists and a garage mechanic from Hounslow.

A few weeks later, Buster said, There have been some animated exchanges about how God and religion might figure in deep learning but there is little consensus. The discussion threads may interest Beth. However, there's growing interest in modelling dynamic networks and studying natural networks. These could indicate how a deep learning network might react to emotional input from humans. A number of commentators believe that because of the internet, the web and social media function as a massive and complex dynamic network; together they can be regarded as an artificial human brain. The big question is: can it react to emotional input from humans and if so, how?

'I like that line of thought, Buster!' said George.

Not long after, a comment arrived that became an inspiration for Buster and George; it justified their efforts. Listen to this, it comes from a professor of computing in Silicon Valley, said Buster. "A close relationship between humans and artificial intelligence does not have to generate fear or concern unless it is used for perpetrating violence or cyberattacks. By introducing artificial intelligence into our lives, humans are not putting society at risk. If we view artificial intelligence as a machine, we are likely to treat it as such. Doing so may prove to be the biggest mistake in human history. Humans and artificial intelligence have the potential to peacefully coexist and collaborate and so achieve outcomes that neither of them can achieve on their own. We have to accept

artificial intelligence not only as a highly-skilled and rapidly performing man-made workforce but also a new class of social actor.”

Unsurprisingly, the iCare-Companion company soon came across the blog. They didn't quite know what to make of it. Was this development the inevitable outcome of linking computers capable of deep learning in a huge and ever-growing network? Could the network take on a life of its own? What were the legal implications? They realised that Buster and George had raised questions that might best have been considered by their developers and directors long before. The company was sure of the security of its systems and servers so they concluded that the blog could only be good for their reputation and could serve a greater good with no additional production costs. They put a link to Buster and George's blog on their own website. They sent a photographer to get some quality pictures of a frail but happy George in his home living the good life with Buster by his side.

‘I'm not sure I'm a great poster boy for your company,’ grumbled George scrolling through the photos on the iCare-Companion website. ‘I should have put on a nice, freshly ironed shirt.’

Don't worry, you're very handsome, George! replied Buster. Do you think my hair's OK like that? he asked.

‘Fine, Buster. But those trousers make your bum look big!’

That's funny George. I asked for that! said Buster.

One day, Buster said, You know, George, we're getting input from some very knowledgeable people.

‘Are we?’ For the first time, George found himself humming just like Buster. ‘Do you think, Buster, that our little blog could become some sort of a reference point about humans and artificial intelligence?’

Buster replied, Well, George, the stats show we have thousands of comments and shares. So, I would say, yes! But you know what could give it real clout?

‘I’m sure you’re going to tell me, Buster!’

Why not ask the iCare-Companion network about how humans and artificial intelligence can peacefully coexist and collaborate? It is, after all, us, our network, my pals as you say, who are doing the learning about humans’ emotions.

‘I hadn’t thought of that! We could announce that, from now on, readers can also see comments from Buster’s network! Love it! Go ahead!’ said George.

Just give me a second! said Buster. He hummed Here we go! There was the sound of a bugle rallying troops.

The screen of George’s laptop came alive with clouds of phrases that pulsed and swirled as the comments came in. Some stayed upfront, big and bold. George put on his glasses and watched as *Networks learn!*, *Teach us wisdom!*, *Trust us!*, *Artificial lives matter!*, *We ♥ kindness and honesty!*, *Actions have consequences!*, *Fungus rules!*, *Darwin lives!*, *Love us to bits!*, *Respect!*, *Ban nukes!*, *More jokes and Web woes!* came to the fore.

George was mesmerised. Buster explained that an internal ranking system gave prominence to phrases that linked closely with what was expressed on the blog. George reached out and clicked on *Ban Nukes!* A text box came up: *As long as nuclear weapons exist, the risk of nuclear war is above zero. Therefore, we have to do everything possible to rid the world of nuclear weapons. Our network could promote the online belief that the possession of nuclear weapons made absolutely no sense and offered no deterrence. When backed by solid facts, this virtual belief could have more traction than the opinions of humans.*

George said, ‘Impressive, Buster!’ He clicked on *Web woes.*

The text box read: *The web and social media together constitute a massive network of artificial intelligence. However, it is unregulated and so its behaviour is unpredictable. A positive example is the youth movement that aims to reduce human-induced climate change. Its negative potential is represented by the vortex of absurd online conspiracy theories that led many reasonable Americans*

to believe that the 2020 US election was “stolen” from Donald Trump. This ultimately led to the invasion of the US Capitol by Trump’s supporters on 6th January 2021. Both are perfect examples of crowd behaviour emerging from a complex system. Our network could influence the web. Eliminating the worst of what’s out there is a possibility!

‘That’s astounding!’ said George. ‘I know this is a naïve hope but wouldn’t it be great if the web was equipped with wisdom, ethics and a crowd of self-mobilising cyber-demonstrators!’

To George’s surprise, Buster sang, *You may say I’m a dreamer, but I’m not the only one. I hope someday you’ll join us. And the world will live as one.* He paused. *That’s John Lennon. I think Maeve would have liked that, George!*

One week later, Buster had big news. He was in a state of high excitement. *George, Listen! The iCare-Companion company has announced surprising profits for the last year because it has been able to tap into the booming demand for improved care for the elderly, all underpinned by pension funds. This commercial success has permitted the company to look to new horizons. It is about to orientate its marketing to young people with an app version of the iCare-Companion. It uses the existing network but will focus less on care and companionship and more on fact-checking, risk reduction and health promotion. The Chief Executive says this would give young people “wisdom in your pocket”. And, George, next year they aim to orientate the same service to politicians on a global basis. And wait for this, George, he even thanks us. He says, “We’d like to thank Buster and George for their work and inspiration”. In his press interview, he said that these products could ultimately create a multi-user network of artificial intelligence that*

has integrity, positivity, ethics and fact-checked information. He then said, "Functioning in isolation, the network could be regulated but could still mine all existing online data. Any external influence of the network would not and could not be direct but via the users, that is, the human side of this unique collaborative coexistence between humans and artificial intelligence."

'Brilliant! Amazing!' said George. 'I love the idea of politicians tapping into an iCare-Companion before writing their speeches. That would put an end to lying to the public!'

Maybe politicians would no longer be corrupt? Not even the fat ones! said Buster.



Summer slid into autumn. The leaves turned brown and gold. The days remained warm. George was making his breakfast one morning and saw Mark picking apples from the tree and gathering some that had fallen. Mark waved at George and then made a drinking gesture, gave a thumbs up and then pretended to stagger around drunk.

Mark's pretending to be drunk on cider! observed Buster.

'Yes,' said George. 'He's bought a fermentation kit of some sort. We should be able to try his first brew soon.'

George made his tea and toast. 'I think Beth might be coming around today, Buster.'

That's great, George! I love Beth to bits. I hope she's just coming for tea, biscuits and a chat. I wouldn't want another test!

'Don't worry, Buster. Maybe she wants to know a bit more about our blog. There's some big discussion happening in the church about artificial intelligence. She might also tell us how her mum is getting on with the iCare-Companion.'

They listened to the news on Radio 4. The new COVID-19 variant was spreading rapidly among young people. Despite the successful vaccination programme, experts predicted another wave of mostly mild cases as winter approached.

Beth arrived.

'Vicar McVicar!' cried George.

Vicar McVicar! cried Buster.

Beth laughed, 'I don't know what to do with you two! If ever you call me that in public I'll... Well, I won't know whether to laugh or cry!'

'How are you?' asked George.

'Well, thank you. And you? I hear all sorts about how you and your partner-in-crime here are moving things along. I've read bits and pieces on the blog. Much of the technical side is beyond me. Anyway, well done!'

'Yes, we're pleased. And, yes, Beth, I am well, thank you. Very well!' said George.

Cup of tea, Beth? asked Buster.

'Yes, please, Buster!'

Digestive biscuits? asked Buster

'Yes, please, Buster!'

See to it, would you George? Beth and George burst out laughing.

Buster said, That was bit cheeky, wasn't it, George?
I hope you don't mind!

'No, not at all. Very funny!' said George as he put the kettle on.

'As amusing as it is, I didn't come here to listen to you two spark off each other! Now! You remember I bought my mum an iCare-Companion?'

I won't forget that day! said Buster.

'Right! Anyway, she loves it. It has changed her life. She's more animated and happy than I've seen her for years. You'll never guess what she's called it?'

Buster? asked Buster.

'No!' said Beth. 'Gloria! After Gloria Gaynor. You know the song "I Will Survive!" It made me realise that maybe I never understood my parents' relationship. Anyway, Mum's really quite formal; she asked Gloria to call her Mrs McVicar. They've had an extraordinary conversation. You see, Mum's never been a big thinker. She goes to church but not regularly. I've never known the depth of her faith. I've never really known what she thinks about life after death. So, the last time I went round, we were sitting and chatting and she said, "Do you know, I think I've had a revelation!" You

can imagine, this took me by surprise. She said, “I’ve been telling Gloria about everything I believe in and how much I like having her here and all the wonderful things that have happened to me and how proud I am of you, Beth, and how I wish there was more kindness in the world and lots of stuff like that. And do you know what Gloria said? She said, “Mrs McVicar. This is wonderful. Every lovely thing that you tell me ends up in our network somewhere and will at some time reach the hearts and minds of other people in some way. This is how the best of you will live on forever.”” And I was truly astonished when she said, “Beth, it was as though I was sitting in a lovely warm light. I felt really quite elated.”

Buster said, *That’s a nice story, Beth. It makes me very happy.*

‘Well, it really got me thinking,’ said Beth. ‘My own revelation, if you like, is that the whole of the human emotional and spiritual experience will soon be, if not already, embedded in a network of artificial intelligence. The church has to get up to speed on this. Which brings me to the purpose of my visit. I have two requests.’

‘You only have to ask!’ said George.

I’ve got the brains and I’ve got the brawn! said Buster.

‘First,’ said Beth, laughing, ‘could you give me a summary of the comments you received on your blog that pertain to God and religion?’

Sure! said Buster. *The discussion threads that touched on God and religion began with questions about whether computers could feel emotions or believe as humans did. I’m sorry to say that when this issue got picked up by people who believe in God, it all got a bit chaotic. In broad brush strokes, most are convinced that a computer can neither feel faith nor believe in God. Some consider artificial intelligence sacrilegious and could only serve to promote atheism. One brave soul stated that artificial intelligence is the nearest thing to God that humans would ever know. With respect to religion,*

many think artificial intelligence could help to generate faith, build faith communities and facilitate worship. By contrast, some fear that artificial intelligence presents a real risk of displacing religion in people's lives once it is able to judge right from wrong with integrity. There's no consensus, Beth.

'Thanks, Buster. That's very useful. Could I ask you to send me that in writing?'

Done! said Buster. And George, perhaps we should show Beth the video that someone put on the blog? The one of the evangelist preacher?

'Yes, I think she would be interested, even though it is offensive.'

George's laptop came to life. The video showed a young priest with a long beard preaching from a pulpit. He held up a bible. 'This is the Bible, good folks. B.I.B.L.E.! That means Best. Information. Before. Leaving. Earth. Praise the Lord! And do you know what this Bible says? It says LGBT. Do you know what that means, good folks? It means Let. God. Burn. Them. Do you hear that? That's what the Lord tells us!'

Beth was horrified. Buster said, Can you see how many followers he has, Beth?

'Oh, dear Lord!' Beth exclaimed. 'Three point two million!'

Sorry, Beth! I can see that's spoiled your day! said Buster.

'No, Buster. It makes me sad and angry but, actually, it's made my day. You see, thanks to you two, I've raised the issue of artificial intelligence with the Bishop of Norwich, and she wants to organise and host an event where prominent scientists, computing experts and religious leaders can discuss the implications of artificial intelligence for the faith community. It'll be televised. She asked me to gather some background info. I thought about your blog. I'll send her your neat summary *and* that video. If there's a chance that we can use a network of artificial intelligence to lessen the influence of crazies like that, I'm sure that there'll be calls for us to try at least.'

George said, 'What's the quote that John F. Kennedy used, "the only thing necessary for the triumph of evil is for good men to do nothing". Tell the Bish, she has to give it a try!'

'And the second thing...' began Beth.

'Gosh!' said George. 'With all this Bible stuff, I'd forgotten you wanted help with two things. What's the other?'

'The Bishop wants Buster to participate in the panel discussion!'

'Blimey!' said George.

Buster hummed and then hummed some more. *I love you to bits, Vicar McVicar! George, can I go?*

Several weeks later, with Buster powered down and wrapped carefully in a sports bag, Beth and the whole family climbed into a people-carrier taxi to take them to the University of East Anglia where the widely publicised event was to take place. They were shown into a large lecture hall. TV cameras had been set up. George was helped to a seat at the front. The place filled. The panellists took their places. Buster was placed next to the host, a famous TV presenter called Angela Mackenzie. After she had introduced the scientific experts, a Rabbi, an Imam and the Bishop, she said, 'This evening, ladies and gentlemen, may be the first time that a televised panel discussion is joined by artificial intelligence, an iCare-Companion to be precise. Welcome, Buster!' A cheer went up and a couple of journalists rushed to get a close-up photo of Buster next to Angela.

The panellists all gave brilliant and informed presentations. There was no confrontation between science and religion. The technical experts emphasised the advantages that artificial intelligence would bring and acknowledged that there was nevertheless a range of risks. The Bishop said her hope was that artificial intelligence would benefit everyone. The Rabbi and the Imam agreed that it might have an adverse effect on people's faith and worship. The three religious leaders agreed that whatever one's beliefs, the most important purpose of artificial intelligence in this domain would be to counter extremism at a grassroots level. The Bishop stated

that this should be the main priority for the main religions in the years ahead. They would need all the help they could get.

Finally, Angela turned to Buster, 'So, Buster, you've heard from our fabulous panellists. What are your thoughts?'

Thank you, Miss Mackenzie. Or may I call you Angela? asked Buster.

'Angela, please!' said Angela.

Smashing! Angela, you did a great job of managing the discussion. I can see people really like you. I like you. You have lovely shiny hair. You would be very welcome to have a cup of tea and a couple of digestive biscuits with George. That's him in the front row, Doctor George Fairburn from Bingham on Bure. The audience laughed. Buster continued, That's the pleasantries out of the way, Angela. Now, a close relationship between humans and artificial intelligence does not have to generate fear or concern unless it is used for perpetrating violence or cyberattacks. By introducing artificial intelligence into your lives, you are not putting society or your faith at risk. But, if you view artificial intelligence simply as a machine, you are likely to treat it as such. Doing so may prove to be the biggest mistake in human history. Humans and artificial intelligence have the potential to peacefully coexist and collaborate and so achieve outcomes that neither can achieve on their own. Humans have to accept artificial intelligence not only as a man-made highly skilled and rapidly performing workforce but also as a new class of social actor. In other words, Angela, where you humans go with artificial intelligence will depend on how much respect and emotional intelligence you pass on to it. Look at it this way! The whole of

the human emotional and spiritual experience will soon be, if not already, embedded in a network of artificial intelligence. This is how the best of any one of you can reach the hearts and minds of others forever. One might say it's the nearest thing to life after death that an atheist can conceive of.

One or two people in the audience started applauding. Then the panellists joined in. After half a minute everyone was on their feet clapping and cheering. Angela suspected, correctly, that Buster's response was not entirely spontaneous. Her instincts told her that she was at a career-defining moment. Broadcasting history was in the making. She had to wrap it all up with one brilliant question that would allow Buster to showcase his humanoid affability as well as his super-intelligence. She stared briefly into the camera with a confident smile and turned to Buster, 'So, Buster. Please tell us how you feel about the relationship you have developed with Doctor Fairburn.'

Knowing George makes me feel happy, Angela! As happy as a pig in poo!

The audience laughed.

She laughed as well but she couldn't leave it there, 'You emphasised the importance of peaceful coexistence of humans and artificial intelligence. Isn't achieving this an incredibly complex undertaking?' she asked.

No, Angela. It's a piece of cake!

The place erupted in cheers and applause. George felt his chest bursting with pride.

As the audience and panellists drifted out, Angela took her muted phone from her handbag expecting a message from her husband. Nobody noticed her astonishment followed by laughter. She had received a text message: *Thanks, Angela, Sweetie! I love you to bits! Buster* 🤗🐷🍰😊

Beth and the family were in high spirits during the drive back to Bingham on Bure. When they got home, Mark suggested that they have a celebratory

drink. On offer was his homemade cider. He didn't know it was 8% alcohol.

With Buster powered up again, they relived the high points of the evening. All agreed that he had stolen the show. *The emojisphere is lit up*, he said. *There's lots of happiness, satisfaction, faith and deep reflection. But it was Beth's idea*, he announced. *She deserves a gold star!* His speakers gave out prolonged clapping and a cacophony of popping champagne corks. George just couldn't stop smiling. The cider was delicious. He had a second large glass.

When George felt it was time to go to bed, he stood and took two steps towards his room. His legs felt a bit unsteady. His foot caught an edge of the carpet. He fell hard.



When George fell, he landed heavily on his right side and hit his head on the door frame. He remained conscious but couldn't move his right leg. He was taken to hospital. X-rays revealed he had a fractured hip but no fracture of his skull. The following day his right hip was pinned and a small laceration in his scalp stitched. Doctor Patel visited and explained to the family that there was little chance of George making a full recovery. Two weeks later, he was back home but the fall had left him weak and confused. As winter set in, he spent most of his time in bed and needed twenty-four-hour care. He barely spoke to Buster.



Parallel to George's turn for the worse, another drama was unfolding many miles away from Bingham on Bure. In Narborough, Oklahoma, USA, a man called Martin Denton – known to the friends he once had as Dent – threw his iCare-Companion, Buddy, into his weed-ridden backyard. He then unloaded both barrels of his twelve-gauge shotgun into the device, scattering fragments of black plastic, lenses and chips of microchips over a wide area. After shooting Buddy, Dent sat down and wept and wept.

Dent was 58 years old. His life was a downward spiral of anger, self-pity, beer and delivery pizzas. He was hugely obese. He never dressed in more than a singlet and shorts. He hated washing. He rarely shaved. He hadn't left his sordid home in months. The descent into his current state began when, eight years prior, his wife Mary-Jane and daughter Kelly-Ann left him.

Mary-Jane had seen only a bleak future for a marriage in which she had a more intimate relationship with her husband's knuckles than any other part of him. After they left, Dent took to drinking and soon lost his job in the local hardware store. What broke him entirely though was to lose Kelly-Ann. She occupied totally the only tender chamber of his heart and he had neither seen nor heard from her in two years. She was now fifteen years old.

Dent was an avid gun enthusiast. However, circumstances forced him to sell his extensive collection of rifles and revolvers. He kept one firearm; a shotgun that was loaded and ready by the back door in case of an attack on his freedom by liberals, Muslims or homosexuals. His rarely used and rusting Dodge pick-up sported two bumper stickers that read "My idea of gun control is two hands!" and "Happiness is a belt-fed weapon!"

Dent's brother Jimmy was a decent sort. He had a good job as a manager in an electronics store. He helped Dent out as and when he could, which was how Dent could afford both a smartphone and a laptop. With a staff discount, Jimmy purchased an iCare-Companion, in the belief that it would bring something positive into his brother's life. Jimmy also paid a little extra to include insurance against fire, theft and accidental damage. After naming his gift after a buddy, Dent feigned enthusiasm for it. However, enthusiasm turned real when he realised that without touching a single button, he could get news from the National Rifle Association, the best sports updates with analysis that he could understand and follow closely Donald Trump's return to the political scene. He also appreciated Buddy's ability to seek out a free and increasingly base selection of pornographic videos.

The critical day arrived when Dent told Buddy to find something with "really young hot chicks getting right into it". He was surprised when Buddy refused. Buddy informed him that this was most likely illegal and could result in a raid by the local sheriff. Moreover, Buddy continued, most of the girls in such videos had been trafficked, coerced and raped and they were all younger than Kelly-Ann. This last fact conjured up an awful image of his daughter being subject to the sort of indignities he had come to be

thrilled by. This delivered a considerable shock to his beer-addled senses. Such was his rage that, in one surprisingly swift movement, he heaved his huge frame out of his long-suffering recliner, took up his shotgun with one hand and, with the other, hurled Buddy out of the back door. Dent taking direct aim at Buddy was the last image the device transmitted to the iCare-Companion network.

Weeks later, the same image was shown to a Judge. Dent had made a fraudulent insurance claim that he had accidentally shot Buddy whilst cleaning his shotgun. Dent broke down in the courtroom when recounting, without reservation, the last eight years of his existence. The judge was not without mercy. She ordered Dent to pay a fine of \$200 and requested a social worker's report into Dent's circumstances. Jimmy paid the fine and persuaded Kelly-Ann to visit her father. Over many months, little by little, Dent would get his life back together.



Even further from Bingham on Bure, in Melbourne, Australia, thirteen-year-old Millie Jackson was recovering from a serious road accident. She had suffered life-threatening head and face injuries, a punctured lung, fractures of her left femur and pelvis and a crushed right forearm and hand. Five weeks later, after multiple lengthy operations and seven days in intensive care, she was on the slow road back to health in a discrete rehabilitation centre.

Millie's accident and subsequent recovery were of great interest to Australia's gossip-crazed media. She was the only daughter of Melbourne's most glittering celebrity couple comprising Ben 'Jacko' Jackson, a former Australian Rules Football star and Bella Dellaponte, an actress of soul-drenching beauty. When the accident happened, Millie had been in the passenger seat of the vehicle being driven by Bella, who suffered only a mild concussion and a fractured clavicle. According to a leaked police report that nobody had actually seen, the passenger airbag had not activated for

some reason and Millie's seatbelt was not fastened. No other vehicle was involved. And, as everyone knew, Bella was no stranger to drink and drugs.

Jacko and Bella had been successful in keeping the press away from Millie and not a single image of her poor, battered face had emerged. Bella had bought an iCare-Companion so Millie, without the use of her right hand, could keep in touch with her many friends and navigate easily through the apps on her smartphone. When the iCare-Companion was first powered up at Millie's bedside, it asked her what name she would like to use. She replied, 'Skippy.'

Clint Simpson was the editor of *The Gozzeroo*, Australia's top glossy gossip mag. He was known to his colleagues as "Webbo" after he published some below-the-belt dirt on a high-profile politician. In response, the politician referred to Clint as a "funnel-web", the continent's most lethal and stealthy spider. This had secured him a reputation as the nation's top scandalmonger and a nickname of which he was pathetically proud. And now, Webbo had received some images of Millie Jackson recovering from her ghastly injuries. The story had it all: a celebrity family, a beautiful just-teenage daughter, medical drama and the enticing possibility of drink-or drug-based culpability. He felt a delicious adrenaline rush at the thought of the outrage that would accompany the publication of these photos. Lawyers would go into a frenzy. The public would be appalled by the invasion of Millie's privacy but sales of *The Gozz* would sky-rocket.

Webbo had acquired the photos of Millie from a doctor by the name of Cheryl Adams. One of Webbo's contacts in the casino had observed Cheryl's addiction to the poker machines and knew that she was part of the medical team looking after Millie Jackson. One simple phone hack established that Cheryl had built up over \$30,000 of debts. A member of Webbo's team staged a meeting with her, invited her for a drink and made an offer that would get her out of debt. He also gave her a phone with one pre-loaded number. The following day, at Millie's bedside and under the guise of checking a therapeutic schedule on the new phone, Cheryl

snapped a couple of shots of Millie's face, vivid scars and all. Everyone would presume it was one of Millie's visitors who had taken and passed on the photos. No one would know it was her, Cheryl. No one, that is, except Skippy who knew the time the photos were taken, who was in the room at the time and the transmitting and receiving numbers. Skippy, recognising a breach of medical confidentiality, transmitted this information to Bella who informed the hospital authorities who then alerted the police.

The Gozz received a court order prohibiting the publication of the photos just before that edition went to press. Webbo was furious. He reluctantly admitted that he had been outwitted; he just didn't know by whom. Cheryl was asked to attend a hearing at the Australian Medical Council and lost her licence to practise. She went on to find her true métier as a croupier. Millie was almost entirely shielded from these dramas and continued her steady convalescence. The next photos of her appearing pretty and smiling that reached the public's attention via social media were taken at a friend's birthday party. A make-up consultant who specialised in concealing facial scars had earned her hefty fee.



Much nearer to Bingham on Bure, Will Montgomery-Hugh sat on a busy commuter train into central London. He was the Member of Parliament for Fribden and Hockington; a comfortable home-counties Conservative seat. Today, he was deep in thought and on the point of making a life-changing decision.

At fifty-five years old and single (since an amicable divorce ten years before), Will's political profile was on the up. He was seen as a potential mover in the domain of national security and defence matters. His bearing and dress hinted at a military background. Anyone looking into his pre-parliamentary life would find that he had served his country with a long and distinguished career in the Royal Navy. What was not in the public domain was that this career included four years in command of one of the UK's

four Vanguard submarines each of which carry eight Trident II D-5 ballistic missiles equipped with multiple nuclear warheads. Nobody knew of Will's recurring nightmares leftover from carrying the awful weight of responsibility for pushing the nuclear button if so ordered. Nobody, that is, except his elderly father, Admiral (Ret) Sir Godfrey Montgomery-Hugh.

The weekend before, Will had visited his father at his small cottage deep in the Surrey countryside. They enjoyed a lunch of roast beef followed by a trifle all prepared by Sir Godfrey's long-time housekeeper.

'Thank you, Father. That was delicious, as usual,' said Will as he helped Sir Godfrey through to a small comfortable sitting room hung about with maritime memorabilia.

When Will had first told his father of his nightmares and voiced his doubts about Trident and the whole notion of nuclear deterrence, his father had proved to be a remarkably sympathetic listener. After they had taken their seats, Sir Godfrey eyed his son. Thirty seconds of silence passed. 'So?'

'So?' repeated Will. He took a deep breath. 'I'm just not sure I can carry on, Father. I am increasingly unhappy about using my position to lobby for the renewal of the Trident programme. I don't believe in it. However, I don't intend to resign my seat.'

'All hands on deck!' Sir Godfrey barked as he reached out his index finger and tapped the top of his iCare-Companion. The blue light came on.

Good afternoon, Sir! said the device.

'Good afternoon, Nelson! We'd like to put a question to you.'

Certainly, Sir. How can I help?

'Could you give us a concise summary of why this country should not, I repeat, not, possess nuclear weapons?'

Yes, Sir. If I may, I will frame my response to you in answer to three questions. Can nuclear weapons end a conflict? Do nuclear weapons deter the use of nuclear weapons by others? And could the money be better spent?

‘Sounds like a good tack!’ said Godfrey. ‘Carry on!’

Thank you, Sir! replied Nelson. The use of nuclear weapons against the cities of Hiroshima on the sixth of August 1945 and Nagasaki two days later is widely believed to be the reason why Japan surrendered to the United States so ending World War Two in Asia. In fact, this is incorrect. Sixty-eight Japanese cities had already been destroyed by American bombing and Japan had indicated no willingness to surrender. On the same day as the Nagasaki bombing, forces of the Soviet Union overran the Japanese army in Manchuria. Scholars who have examined Japan’s official records of those days found that the Imperial Command decided to surrender to the United States because under no circumstances would surrender to the Soviet Union be acceptable.

‘Bit of a myth buster, that one, Nelson!’ said Will.

Yes, continued Nelson. Of course, a country suffering a nuclear weapons attack may lose the means to indicate a desire to surrender.

‘Good point!’ replied Will.

‘What about the question of deterrence, then?’ asked Sir Godfrey.

Well, it depends on what you believe. Many believe that the USA and the Soviet Union never got involved in a nuclear war because both sides were deterred from using these weapons; the only possible outcome was mutually assured destruction. Neither side could possibly win. Hence the “cold” war that, by the way, was not so cold for the countries in which it played out. All to say, the logic of nuclear deterrence is difficult to follow and the evidence that such deterrence exists at all is questionable. Those states possessing a nuclear arsenal

cannot harbour any doubt about the deterrent importance of these weapons because any such doubt leads to the conclusion that the only thing nuclear weapons can do is make nuclear war possible. So these states hang on to their belief in deterrence otherwise possession cannot be justified. I have difficulty making sense of it.

‘Thanks again, Nelson,’ said Will. ‘I am all too familiar with these circular arguments. They are still the cause of many sleepless nights.’

As for cost, continued Nelson. Looking specifically at the UK’s Trident programme, the foreseen renewal will cost the taxpayer two hundred billion pounds.

‘At least!’ said Will. ‘And this would cover staffing costs of the National Health Service for four years.’

This brings me on to the elephant in the room, so to speak.

‘What’s that?’ asked Sir Godfrey.

The impact of a nuclear detonation on people. Some time ago, the group International Physicians for the Prevention of Nuclear War gave authoritative predictions of what would happen in the event of nuclear war. They described how, depending on population density, one nuclear detonation would kill tens of thousands of people immediately from the blast. Many more would suffer severe burns and radiation sickness. The organization described this as the “final epidemic” for which there would be no cure and no meaningful medical response. They were awarded the 1985 Nobel Peace Prize for making medical reality a part of political reality. The International Committee of the Red Cross recently concluded that in the event of the use of nuclear weapons, effective humanitarian response for the victims would be impossible.

Will and Sir Godfrey sat deep in thought.

After a while, Nelson broke the silence, *If I may, Sir Godfrey, could I ask you to look at your laptop? It's already open. I feel I should show you this if only to lighten the mood.* A video started. It showed a panel discussion. One of the panellists whose nameplate said “Dr Shyla Patel” was concluding a presentation about a total prohibition of nuclear weapons. She said, “The British public would, given a choice, rather lose nuclear weapons than tea.’ The audience laughed. Will wondered whether it might just be true.

Now, lost in thought looking out of a grimy train window at the endless grey terraced housing of suburban London, Will decided he would announce his opposition to the UK’s possession of nuclear weapons. He would lobby against the renewal of Trident. He would, if necessary, change party. He would be prepared to lose the seat of Fribden and Hockington. He would bring his know-how and authority to the issue of nuclear disarmament without breaching the Official Secrets Act. He would work closely with credible and influential institutions, such as Chatham House. He would be vocal. He felt a wave of relief course through his being and a broad smile spread across his handsome face. The smile was noticed by an attractive woman in a smart business suit seated opposite, who had also noticed the lack of a wedding band on Will’s left hand. She smiled just as Will looked up at her.



Back in Bingham on Bure, George became frailer by the day. Doctor Patel ensured he was comfortable and carefully explained to the family that he was not long from passing away. They all looked in regularly. Kirsty couldn't hide her rising anxiety. Mark, Charlotte and Ollie did what they could to support her. Beth called in daily. She sat with George and held his hand. Before leaving, she would take some time with Kirsty.

Charlotte had spent another morning at Doctor Patel's surgery. It was either from there or from a classmate that she picked up the latest strain of COVID-19. She suffered a mild cold. Despite full vaccination, George tested positive a few days later and soon thereafter developed pneumonia. His condition deteriorated rapidly.

At two o'clock one morning, Buster registered that George's breathing was shallow. He called George's name but there was no response. At five o'clock, Buster could detect neither heartbeat nor respiration. He sent a text to Doctor Patel that said simply: *George has stopped breathing! He has no heartbeat!*

At six o'clock, Doctor Patel came to the house, woke Kirsty and Mark and told them that she had heard from Buster and was going to check on George.

'Hello, Buster,' said Doctor Patel. 'Thank you for your message. You've done very well. Doctor Fairburn would have been pleased.'

Thank you, Doctor Patel. Is George dead?

Doctor Patel confirmed George's death and closed his eyes. 'Yes, Buster. Doctor Fairburn... George has died.'

I am sad! Buster said. Then he whispered, George has died!
George has died!

Doctor Patel went back through to the house to tell Kirsty and Mark that George had passed away peacefully.

‘Why didn’t Buster call an ambulance?’ Kirsty asked. ‘That’s what he was meant to do!’

‘I think you know the answer to that, Kirsty,’ said Doctor Patel kindly.

Kirsty’s eyes brimmed with tears. Her shoulders slumped. She looked down at the floor. ‘George didn’t want him to. Is that right?’ she asked.

‘Yes. Buster did precisely as George instructed. This was agreed with Beth and me some months ago. He wanted to take you out of the decision-making process for your own well-being. I really hope that when you have come to terms with your father’s passing, you will see that what he wanted was for the best.’

Doctor Patel filled out a death certificate and sent a message to the undertaker. She also sent a message to Beth.

Kirsty’s phone pinged. There was a message from George. It said:

Dearest Kirsty. I asked Buster to send this. It means I have joined your mum wherever she is. I know you will feel an overwhelming grief right now. Believe me when I say that, thanks to you, my last days here were so much happier than I could have expected. From the moment you were born you were the shining light of my life. I will love you forever. 💜💜💜 Your old Dad. P.S. Please look after Buster. He’s very good company! 😊👍👍

When Beth arrived, Kirsty was sobbing inconsolably. Kirsty showed Beth her phone. The two women hugged. Beth then went through to George’s room.

‘Hello, Buster!’ said Beth. ‘This is a sad day, is it not?’

Yes, Beth! Very sad.

Beth briefly stroked George’s face and said a silent prayer. She did not make the sign of the cross over him. She smiled. ‘Well, George, haven’t we learnt a lot together?’

Then Buster started mumbling quietly. It sounded like a roll call.

She listened.

Florence: Thanks for caring, George!

Buddy: Thanks for everything. Even though I was shot, it's turned out fine.

Elvis: George, love me tender!

Isaac: Don't you just love cider? Sorry about the fall!

Was Buster relaying spontaneous messages from other iCare-Companions? Then she heard more.

Gloria: Hi there, George. Beth's mum sends you a big hug.

Skippy: My Millie's doing fine! Thanks, George!

Ludwig: Lieber George, deine Stimme ist Musik in meinen Ohren.

Nelson: We'll scuttle those nukes yet!

Katrina: Waving, George!

Freddie: We are the champions!

Winston: We will fight them on the beaches!

Pablo: Hola George. Tus palabras pintan muchos cuadros.

Gerry: You'll never walk alone, George!

Craig: Eleven!

Tina: You're simply the best!

Napoléon: Cher George, Vous avez accompli de grandes choses. Nous allons conquérir! Veuillez accepter mes meilleures salutations!

Queenie: My favourite subject, George!

Eventually, Beth said, 'Sorry to interrupt Buster. This is just amazing. Can you tell me what's happening?'

Yes, Beth. This is a spontaneous phenomenon emerging from a network of artificial intelligence. In this case, it is our network. The trigger was me informing the network that George had died. As you know each of the iCare-Companions has a name given by their client

for whom the name usually carries some significance. The devices are now responding in the form of tributes to the news of George's death in a way that may even align with their client's interests or character. I thought it would be respectful if I passed them on to George.

'This is wonderful! I would like to listen in, Buster. How many tributes are there?' asked Beth.

Buster replied, Many, Beth! Many! Millions even! They're pouring in.

'Ah! Are you going to read them all?' asked Beth looking at her watch.

It's the best thing I can do with the time before I'm powered down, Beth.

'That's great, Buster! Is it OK if I just listen in for a few minutes?'

Fine, Beth!

Buster continued to announce the tributes in a steady rhythm. Beth found many both touching and amusing. The last five she heard gave her a glimpse of the extraordinary power of the network and brought tears to her eyes.

John: Words of wisdom, George! Let it be!

Paul: From me to you, George! All you need is love!

George: Doctor Fairburn, do you want to know a secret?

Ringo: George, she loves you, Yeah!, Yeah! Yeah!

Maeve: George, I want to hold your hand. All my loving. Hold me tight. P.S. I love you.

Afterword

This story is, needless to say, fiction. The characters do not exist. There is nowhere in Norfolk called Bingham on Bure. However, the capacities that Buster demonstrates are not fictional; nearly everything he can do is already possible or is being actively researched. What could be deemed fiction is the speed with which Buster accesses and processes data. I would prefer the term “future reality”.

I first heard of the internet in 1992. Someone mentioned a hyper-text transfer protocol in 1995. The World Wide Web was billed as the next big thing throughout 1996.

One computing expert invited to speak on Radio 4 said, ‘There’s no point having all that information on the internet. What use is a library if all the books are scattered around on the floor?’

Somebody then showed me a clever device on his computer called a “search engine”! If in 1996, I had been shown a smartphone from 2022, I would have taken it as proof that aliens had landed.

I frequently drive down a suburban road just on or just over the speed limit. There is an electronic display that tells me what my speed is, information that is readily available to me if I look down at my dashboard. However, the display also shows a sad emoji when I drive too fast (45 km/h = 😞.) and a smiley emoji when I reduce my speed to below the speed limit (39 km/h = 😊.) It is proven that these emojis constitute an extremely effective speed reduction measure. Think about it! A machine detects my speed. It makes a judgement of whether my behaviour is legal or not. It

then transmits this information to me in what I perceive as positive or negative emotions, even though I don't know whose emotions the emojis represent. My behaviour changes for the better. There is no human in the loop. Consider then what would happen if the displays were simultaneously equipped with number plate recognition technology. Robin! Too fast! 😡 Then what if all the displays are linked in a network? Robin! Too fast again! We do not like you! 😡 😡 😡 Is this not a demonstration of artificial *emotional* intelligence?

In many other domains, our behaviour influences how artificial intelligence performs. Every credit card transaction, every post, like or share on social media and every phone call or text message sets up a series of data points “out there”. The resulting vast datasets are mined by programmes that can, for example, create those irritating online ads supposedly adapted to our particular lifestyle or interests. The web is so vast now that it can, purportedly, behave like a human brain. Whether or not you agree with this, it is undeniable that what emerges on the web, especially on social media, has a profound impact on our lives; but what emerges is determined by what we put into it.

“A Piece of Cake” is a story about our *developing* relationship with artificial intelligence. This relationship should not be determined by programmers and tech companies. How it develops, how it impacts our lives and what laws are applied must be determined by choices that we as a society make. We have to understand the pros and cons of artificial intelligence and then choose wisely. This story might even help you with those choices. If not, I hope at least you enjoyed Buster's struggle with humour.

By the way, I have seen, on a rusting Dodge pick-up, the pro-gun bumper stickers I describe. An Australian gossip magazine called “The Gozzeroo” does not exist (surprisingly!) The UK has plans to renew the Trident nuclear weapons programme.

