

A WINDOW ON THE UNIVERSE

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What does the future hold in store for the human race? Aliens from distant galaxies, telepathic horror, interstellar war, time-warps, the shriek of a rose, collision with an asteroid – the unknown lies around every corner, and the universe is a big place. These nine science-fiction stories offer possibilities that are fantastic, humorous, alarming, but always thought-provoking.

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SHORT STORIES BY

Ray Bradbury

Bill Brown

Philip K. Dick

Jerome Bixby

Isaac Asimov

Brian Aldiss

John Wyndham

Roald Dahl

Arthur C. Clarke

A WINDOW ON THE UNIVERSE



Bill Soames (p56): *It's fine, just fine. A real good day!*

Dad (p64): *Well, it's been a good day.*

Mom (p66): *You talk any way you want to, Amy, and it's just fine.*

Dan Hollis (p70): *It's good that I can't play it here.*

Pat Reilly (p74): *It's swell . . . just swell.*

John Sipich (p75): *It's the best show we've ever seen!*

- 3 Find the places in the text where Anthony does things to people: Aunt Amy, Mrs Kent's husband Sam, the Terrance family and Joe Kinney, little Fred Smith, Dan Hollis. Does the author achieve his effects by direct, or indirect means? Try writing graphic descriptions to add detail to the following, for example:

- 'And that had been the end of Amy Fremont's bright eyes, and the end of Amy Fremont as everyone had known her'
- Mrs Kent's husband Sam 'walking back from the graveyard'
- the 'thing' that Dan Hollis became; 'something like nothing anyone would have believed possible'.

Do you think the horror comes across more powerfully in your descriptions or in the understatement of the original? Why?

ACTIVITIES

- 1 Imagine that some of the carefully protected children of Peaksville are now old enough to be told about Anthony. Write them a letter, full of advice and warnings about what they should and should not do in order to survive. Try to express everything in as positive a way as possible (as though Anthony were listening), but somehow still make the warnings clear.
- 2 The story ends just as bleakly as it begins. Nothing has really changed; just another victim has been added to Peaksville's death toll. Did you find this a satisfying ending? How would you have chosen to end the story – with the villagers trying to get rid of Anthony, perhaps, and either succeeding, or failing, with disastrous results? Write a paragraph or two to add your preferred ending to the story.

THE MACHINE THAT WON THE WAR

THE AUTHOR

Isaac Asimov was born in Russia in 1920, but from 1923 lived in the USA. His academic studies gained him three degrees, and in 1949 he became an associate professor of biochemistry at Boston University, a post he resigned in 1958 in order to write full-time. His output was enormous, both in science fiction and in very successful non-fiction scientific writing. His best-known works are probably the *Foundation* series and the *I, Robot* collection (with its famous 'three laws of robotics'). His story *Nightfall* is often considered the best SF short story ever written. He died in 1992, with more than 400 published works to his name.

THE STORY

We live in the computer age. Year by year, even month by month, computers become ever more sophisticated, sorting, analysing, delivering vast quantities of data in the blink of an eye. 'I'll put a girdle round about the earth in forty minutes!' says Puck in *A Midsummer Night's Dream*. But Shakespeare's winged messenger would be slow today, when information flashes as fast as light around the computer Internet that girdles our world.

Deep in an underground chamber, three men meet and talk, their heavy burden of responsibility now lifted. The war with Deneb is over – a long, ferocious war between worlds, in which whole planets could disappear in an instant, and the accurate collection, processing, analysis of data was crucial to Earth's survival. And all around the three men lies the labyrinth of the giant computer, Multivac, the machine that won the war . . .

THE MACHINE THAT WON THE WAR

The celebration had a long way to go and even in the silent depths of Multivac's underground chambers, it hung in the air.

If nothing else, there was the mere fact of isolation and silence – for the first time in a decade, technicians were not scurrying about the vitals of the giant computer, the soft lights did not wink out their erratic patterns, the flow of information in and out had halted.

It would not be halted long, of course, for the needs of peace would be pressing. Yet now, for a day, perhaps for a week, even Multivac might celebrate the great victory, and rest.

Lamar Swift, Executive Director of the Solar Federation, took off the military cap he was wearing and looked down the long and empty main corridor of the enormous computer. He sat down rather wearily in one of the technicians' swing-stools and his uniform, in which he had never been comfortable, took on a heavy and wrinkled appearance.

He said, 'I'll miss it all, in a grisly fashion. It's hard to remember when we weren't at war with Deneb, and it seems against nature now to be at peace and to look at the stars without anxiety.'

The two men with Swift were both younger than he. Neither was as grey, neither looked quite as tired.

John Henderson, thin-lipped and finding it hard to control the relief he felt in the midst of triumph, said, 'They're destroyed! They're destroyed! It's what I keep saying to myself over and over and I still can't believe it. We all talked so much, over so many years, about the menace hanging over Earth and all its worlds, over every human being, and all the time it was true, every word of it. And now we're alive and it's the Denebians who are shattered and

destroyed. They'll be no menace now, ever again.'

'Thanks to Multivac,' said Swift, with a quiet glance at the imperturbable Jablonsky, who through all the war had been Chief Interpreter of science's oracle. 'Right, Max?'

Jablonsky shrugged. Automatically, he reached for a cigarette and decided against it. He alone, of all the thousands who had lived in the tunnels within Multivac, had been allowed to smoke, but toward the end he had made definite efforts to avoid making use of the privilege.

He said, 'Well, that's what *they* say.' His broad thumb moved in the direction of his right shoulder, aiming upward.

'Jealous, Max?'

'Because they're shouting for Multivac? Because Multivac is the big hero in this war?' Jablonsky's craggy face took on an air of contempt. 'What's that to me? Let Multivac be the machine that won the war, if it pleases them.'

Henderson looked at the other two out of the corners of his eyes. In this short interlude that the three had instinctively sought out in the one peaceful corner of a metropolis gone mad; in this entr'acte between the dangers of war and the difficulties of peace, when, for one moment, they might all find surcease, he was conscious only of his weight of guilt.

Suddenly, it was as though that weight were too great to be borne longer. It had to be thrown off, along with the war – now!

Henderson said, 'Multivac had nothing to do with victory. It's just a machine.'

'A big one,' said Swift.

'Then just a big machine. No better than the data fed it.' For a moment, he stopped, suddenly unnerved at what he was saying.

Jablonsky looked at him, his thick fingers once again fumbling for a cigarette and once again drawing back. 'You should know. You supplied the data. Or is it just that you're taking the credit?'

'No,' said Henderson angrily. 'There is no credit. What do you know of the data Multivac had to use, predigested from a hundred subsidiary computers here on Earth, on the Moon, on Mars, even on Titan? With Titan always delayed and always that feeling that its figures would introduce an unexpected bias.'

'It would drive anyone mad,' said Swift, with gentle sympathy. Henderson shook his head. 'It wasn't just that. I admit that eight years ago when I replaced Lepont as Chief Programmer, I was nervous. But there was an exhilaration about things in those days. The war was still long range; an adventure without real danger. We hadn't reached the point where manned vessels had had to take over and where interstellar warps could swallow up a planet clean, if aimed correctly. But then, when the real difficulties began . . .'

Angrily – he could finally permit anger – he said, 'You know nothing about it.'

'Well,' said Swift. 'Tell us. The war is over. We've won.'

'Yes.' Henderson nodded his head. He had to remember that. Earth had won, so all had been for the best. 'Well, the data became meaningless.'

'Meaningless? You mean that literally?' said Jablonsky.

'Literally. What would you expect? The trouble with you two was that you weren't out in the thick of it. Max, you never left Multivac, and you, Mr Director, never left the Mansion except on state visits where you saw exactly what they wanted you to see.'

'I was not as unaware of that,' said Swift, 'as you may have thought.'

'Do you know,' said Henderson, 'to what extent data concerning our production capacity, our resource potential, our trained manpower – everything of importance to the war effort, in fact – had become unreliable and untrustworthy during the last half of the war? Group leaders, both civilian and military, were intent on projecting their own improved image, so to speak, so they obscured

the bad and magnified the good. Whatever the machines might do, the men who programmed them and interpreted the results had their own skins to think of and competitors to stab. There was no way of stopping that. I tried, and failed.'

'Of course,' said Swift, in quiet consolation. 'I can see that you would.'

This time Jablonsky decided to light his cigarette. 'Yet I presume you provided Multivac with data in your programming? You said nothing to us about unreliability.'

'How could I tell you? And if I did, how could you afford to believe me?' demanded Henderson. 'Our entire war effort was geared to Multivac. It was the one great weapon on our side, for the Denebians had nothing like it. What else kept up morale in the face of doom but the assurance that Multivac would always predict and circumvent any Denebian move, and would always direct and prevent the circumvention of our moves? Great Space, after our Spq-warp was blasted out of hyperspace we lacked any reliable Denebian data to feed Multivac, and we didn't dare make *that* public.'

'True enough,' said Swift.

'Well, then,' said Henderson, 'if I told you the data were unreliable, what could you have done but replace me and refuse to believe me? I couldn't allow that.'

'What did you do?' said Jablonsky.

'Since the war is won, I'll tell you what I did. I corrected the data.'

'How?' asked Swift.

'Intuition, I presume. I juggled them till they looked right. At first, I hardly dared. I changed a bit here and there to correct what were obvious impossibilities. When the sky didn't collapse about us, I got braver. Toward the end, I scarcely cared. I just wrote out the necessary data as they were needed. I even had Multivac Annex prepare data for me according to a private programming pattern I had devised for the purpose.'

'Random figures?' said Jablonsky.

'Not at all. I introduced a number of necessary biases.'

Jablonsky smiled, quite unexpectedly, his dark eyes sparkling behind the crinkling of the lower lids. 'Three times a report was brought to me about unauthorized uses of the Annex, and I let it go each time. If it had mattered, I would have followed it up and spotted you, John, and found out what you were doing. But, of course, nothing about Multivac mattered in those days, so you got away with it.'

'What do you mean, nothing mattered?' asked Henderson, suspiciously.

'Nothing did. I suppose if I had told you this at the time, it would have spared you your agony, but then if you had told me what you were doing, it would have spared me mine. What made you think Multivac was in working order, whatever the data you supplied it?'

'Not in working order?' said Swift.

'Not really. Not reliably. After all, where were my technicians in the last years of the war? I'll tell you – they were out feeding computers on a thousand different space devices. They were gone! I had to make do with kids I couldn't trust and veterans who were out of date. Besides, do you think I could trust the solid-state* components coming out of Cyogenics in the last years? Cyogenics wasn't any better placed as far as personnel was concerned than I was. To me, it didn't matter whether the data being supplied Multivac were reliable or not. The *results* weren't reliable. That much I knew.'

'What did you do?' asked Henderson.

'I did what you did, John, I introduced the bugger factor*. I adjusted matters in accordance with intuition – and that's how the machine won the war.'

Swift leaned back in the chair and stretched his legs out before him. 'Such revelations. It turns out then that the material handed me to guide me in my decision-making capacity was a man-made

interpretation of man-made data. Isn't that right?'

'It looks so,' said Jablonsky.

'Then I perceive I was correct in not placing too much reliance upon it,' said Swift.

'You didn't?' Jablonsky, despite what he had just said, managed to look professionally insulted.

'I'm afraid I didn't. Multivac might seem to say: Strike here, not there; Do this, not that; Wait, don't act. But I could never be certain that what Multivac seemed to say, it really did say; or what it really said, it really meant. I could never be certain.'

'But the final report was always plain enough, sir,' said Jablonsky.

'To those who did not have to make the decision, perhaps. Not to me. The horror of the responsibility of such decisions was unbearable and even Multivac was not sufficient to remove the weight . . . But the important point is I was justified in doubting, and there is tremendous relief in that.'

Caught up in the conspiracy of mutual confession, Jablonsky put titles aside. 'What was it you did then, Lamar? After all, you did make decisions. How?'

'Well, it's time to be getting back, perhaps, but – I'll tell you first. Why not? I did make use of a computer, Max, but an older one than Multivac, much older.'

He groped in his pocket and brought out a scattering of small change – old-fashioned coins dating to the first years before the metal shortage had produced a credit system tied to a computer-complex.

Swift smiled rather sheepishly. 'I still need these to make money seem substantial to me. An old man finds it hard to abandon the habits of youth.' He dropped the coins back into his pocket.

He held the last coin between his fingers, staring at it absently. 'Multivac is not the first computer, friends, nor the best-known, nor the one that can most efficiently lift the load of decision from

the shoulders of the executive. A machine *did* win the war, John; at least, a very simple computing device did, one that I used every time I had a particularly hard decision to make.'

With a faint smile of reminiscence, he flipped the coin he held. It glinted in the air as it spun and came down in Swift's outstretched palm. His hand closed over it and brought it down on the back of his left hand. His right hand remained in place, hiding the coin.

'Heads or tails, gentlemen?'

NOTES

solid-state components (p84)

electronic components made of solid materials

the bugger factor (p84)

(*taboo*) probably derived from *to bugger something about*, meaning to mess something about, to interfere with it or spoil it in some way

DISCUSSION

- 1 Did you enjoy the ending of this story? Why, or why not? Do you ever toss a coin, or use a similar device, to make a decision? What are the advantages and disadvantages of making decisions in this way? Do you think there are some kinds of decision which should never be made like that? If so, what are they?
- 2 In a speech made in 1963 John F. Kennedy said that 'Man is still the most extraordinary computer of all'. Do you think this story supports that viewpoint? In what way? Will computers ever, in your opinion, be equivalent to the human brain?

LANGUAGE FOCUS

- 1 What do these expressions mean, in the context of the story? Rephrase them in your own words.

you weren't out in the thick of it (p82)

the men [...] had their own skins to think of (p83)

When the sky didn't collapse about us (p83)

I would have followed it up and spotted you (p84)

so you got away with it (p84)

I had to make do with kids [...] and veterans (p84)

ACTIVITIES

- 1 Henderson is the first of the three to make his confession, feeling the weight of his guilt even though the war has now been won. How do you think he felt at the time? Write his diary entry for the day in the war when he realized that the incoming data were unreliable and decided to use his intuition to juggle them until they looked right.
- 2 Do you think the title of this story, *The Machine That Won the War*, is