

GREAT MINDS

by

Robert L Fielding

Sarah remembered her fortieth birthday. 'Life begins at forty,' they had said. And it had, in a way. Peter had bought her an Amstrad Notepad Computer. So she had had her own word-processor, portable too. That had started it all. Until then she had thought nothing could be changed.

*

"But why a computer," she had asked her husband. "You know I can't work them, and feel threatened by them." She realised how ungrateful that sounded.

"But it was nice of you," she added, kissing him. Peter smiled at her reaction, which he had anticipated.

"Darling," he said, tenderly, but insistently, "this computer will change your life, I promise." She wanted to believe him, but she remained unconvinced.

*

She remembered the doctor's words. One year, two at the most. It was October, nothing had changed, except the thought of leaving Peter, which weighed on her heart like a stone.

*

She liked the computer, it seemed like a new beginning. She had resisted computers, preferring to rely on her own mental ability, but she would try to use it.

"I will," she said, "I promise," and she had kissed him again.

*

She sat down with it.

"I could use it as a diary," and she started to write. At first, she wrote very little but, as time passed, she started a dialogue, communicated her innermost thoughts.

"But machines can't communicate," she said to herself, but she continued, and slowly she began to understand her condition. Her doctor had said it would worsen, until... She stopped thinking about that day. She wrote and wrote; it drew her out. She wrote about her life.

*

Just before she was forty, she had received news which had shattered her. Since then she had hardly had a minute free from the agonising recollection of Doctor Gilbert's words. He was an old friend of the family, and had acquainted her with the realities of her ailment, in his matter of fact way, which she found comforting. She had complained of an ache over her left eye, and above her temples. She thought it meant that she needed glasses. She said so to Peter.

"You'll look terrific," he had said, unconvincingly. But it wasn't her eyesight, and so Doctor Gilbert had sent her for tests, routine at first, and then, when it became clear that it was no routine matter, to a neurologist.

*

Doctor Gilbert explained in the voice of paternal consideration.

"The brain," he started, "is like a computer, but it is much more complex." He had touched her forehead as she listened.

"The cerebrum, the most developed part of the brain, has two hemispheres." He stroked her temples. It eased her.

"The right-hand side contains those systems concerned with the development of language, our cognitive side, while the left side deals with our creative, artistic nature. Between the two is a nerve fibre, the corpus callusom, and that is the communicative link between them. You complained of headaches, of a loss of memory."

"I can't remember simple words, Doctor, my mind goes blank." He stopped her.

“Information is transmitted from the different parts of the brain, to parts of the body, by neurons, of which we know very little.”

“Neurons?”

“Electric impulses sent through the branching mass of dendrites to all parts of the body, the ear, the eye, and so on.”

“There is a break, in your nerve fibres, and so information is not getting to where it is needed, hence your loss of memory, forgetting even the simplest of words.” He now looked at her carefully, to gauge her reaction to what he now had to say.

“We have no way of repairing that break.” He paused, still looking at her.

“Your condition will worsen...steadily...until...”

“What will happen to me?” She had to know.

“You will start to forget more and more, and your vocabulary will deteriorate as the reticular activity slows and the limbic systems break down, the right hemisphere.” She remembered, and nodded.

“The cognitive side.”

“That will stop functioning as it becomes deprived of stimuli and you will lose your language.”

“Will I die, Doctor?” she asked, looking into his eyes for his answer.

“You have one...maybe two years. No more.”

*

She remembered, even though she could not remember his name. She looked at the computer entries. She returned to the first entry, written on her birthday. It was simple: ‘How nice of Peter.’ She looked again. She had spelt nice with an ‘s’. ‘The children had went to the zoo.’

She was astounded. ‘Had went.’ She paged on and on, scanning for errors. They were numerous, too numerous at first, but then they seemed fewer in the later entries. She paged down to the day before, and re-read the entry.

‘Peter had migraine this morning. He must go the doctor again.’

She had only omitted the indefinite article, and a preposition. She was relieved that yesterday's entry had only minor faults, and in fact she

wasn't even sure they were faults. She often wrote a sort of clipped diary language.

“Lots of people do.” She stopped, and shouted the words aloud.

“Peter had a migraine this morning. He must go to the doctor again. How nice of Peter.” She was shouting the words she had written.

“The children went to the zoo.” She looked at the screen.

Her forgetting to use articles and prepositions only seemed to occur in her writing. She remembered the doctor's words.

“Your condition will steadily worsen.” She paged down again, wincing at the errors, the more so because she had always prided herself on her English.

“And now this, 'had went'.” She went down through the entries. There was no doubt about it. It was quite appalling, and the worst thing was that she hadn't known she had been writing such terrible English, until she had re-read it. The computer had given her the chance to re-read every line, which was something she never did. She wrote her diary, but never re-read it, preferring to leave it for Peter, when he found it lying open.

Now she had seen the changes with her own eyes, she could assess the extent of her...she did not even know what on Earth to call it, her illness. It was hardly that, for she couldn't really say that she felt any physical deterioration.

*

Sarah was frightened. She looked around at the apparatus, which meant nothing to her. She felt alone. She wanted to be with her husband Peter. She wanted to live. She felt angry, and helpless, in the hands of strangers, and machinery, the white octopus machine that enveloped her in wires.

*

“The electroencephalograph,” the doctor began, “is a mouthful, so we call it the EEG.”

Sarah was still scared.

“It is an incredible machine, and it looks incredible, but...” Here, he turned to look at her face, “It will not hurt you.”

“You will feel nothing, nothing at all.” He moved to the console to begin.

*

“You have heard of brainwaves? This machine helps us to study them. You have brainwaves, we study them. We look at the workings of the brain, by analyzing its electrical activity. We study it, and we see what is working and what is not.”

“And now...” He placed his hands either side of her face, his thumbs below her ears, and his first and second fingers on her temples. She rested her head, and closed her eyes. She felt...nothing.

*

She had dozed off. It was over. The doctor was looking at a graph, which he held out at arms length. She had momentarily forgotten, but a dull ache in her heart reminded her of the situation she was in.

“The human mind,” he said, inspecting the graph, “is a wonderful thing.”

“You agree?” She was numb, could only mumble.

“I have this picture of your mind working, even as you were sleeping. And now I can say how, just on the basis of these lines.” He held up the graph. It was incomprehensible to her.

“Intelligence is, they say, a matter of reaching sensible conclusions on the basis of incomplete evidence, and even here, that is all we have, these lines on this graph. I have not seen into your head, but I can now say that everything is fine.” He put the paper down and moved towards her.

“Scientists have always been impressed with the similarities between computers and the brain. We have built models, and we have theorized when we did not know, and reshaped our model when we proved our theories wrong.” He breathed in.

“That is the way science progresses, not by startling discoveries, but by disproving theories, and moving on, until the model is unable to accommodate the findings.” She wondered what was coming next.

"Then we construct a new model, and start again." He was intense, and she was scared.

"You have helped us to disprove some of our theories about how the brain functions. You have been working with symbols," he turned away from her, "with language?" He faced her again.

"You can answer, we have not taken your tongue."

She stammered a reply.

"Yyes, with language, a computer."

He spoke again.

"Language is basically computational in nature. It ascribes symbol manipulating processes to the psychological system. What you have been doing since we last saw you, has achieved the impossible, or what we thought of as impossible until now." He was excited.

"You were told," I think, "that you had a break in a nerve fibre."

"Yes," she replied.

"And that nothing could be done to repair it?" She nodded.

"And that is still true, it cannot be repaired." His eyes were animated.

"You, my dear lady, have gone another way, literally, your reacting to symbols on a screen, letters, has forced the electrical impulses of your mind to find another route to that other hemisphere, and you have done it yourself, you and that computer you have been working with. You must have been looking at it for a long time. You must have manipulated those symbols, re-arranged them, perhaps there was something wrong with the language you used." She nodded, thunderstruck by his words, unable to speak. His elation knew no bounds.

"Somewhere it is written, Go and seek our own salvation, and that is what you have done, my dear lady. You have sought and found your own saviour, in that computer. Go and sing it from the rooftops. Go and reassure those people who find technology threatening. Go and spread the word."

"And she did. I know. I bought her the computer."