PRESERVED

 We have learned how to capture images using photography, video devices, and motion pictures. We have recorded voices and sound -- first, using the phonograph, and later, digital recording equipment. But what if we could find a way to record and then preserve all of our life's experiences and memories, all of our thoughts and emotions? Such a technology could enhance human civilization by building a permanent databank of the world's finest minds, so that even after death, their entire lifetime of intellectual contributions would survive. Inventors and scientists struggled to make this theoretical concept a reality for decades, but it wasn't until Drake Hendrix stumbled upon the solution one day in early March, 2046, that the dream was finally realized.

 As a boy, Drake always wanted to be an inventor. He exhausted his teachers at school by bombarding them with endless questions about everything. Soon, his parents acknowledged his genius by hiring a series of gifted private tutors at home, so that their son could excel at his own pace. At first, his older brother and his two sisters were jealous of Drake's remarkable abilities, but over time they became quite proud of him and soon defended him against any detractors. Meanwhile, Drake absorbed the biography shelves at his local public library, especially books on the lives of famous technological inventors like Tesla, Edison, Marconi, Morse, Watt, Ford, the Wright Brothers, Bell, Farnsworth, Eastman, Westinghouse, Faraday, and others. Drake eventually went on to graduate from Oxford University as a Rhodes Scholar at the remarkable age of 18, earning a Ph.D. summa cum laude in computer micro-engineering.

 After receiving a substantial ten-year grant from the Bill and Melinda Gates Foundation, Hendrix began working out the specifics of his theory of permanent human memory retrieval and storage, assisted by a full-time team of forty assorted engineers, scientists, physicians, and computer technicians.

 Drake’s first task was to understand exactly how memories were stored in the human brain. He learned that four specific areas of our mysterious gray and white matter were responsible:

 \* The cerebellum (for procedural memory, such as learning to play the piano.)

 \*The hippocampus (for the consolidation of recognition and spatial memories.)

 \*The amygdala (a repository of memories triggered by stress, fear, and/or aggression.)

 \*And the prefrontal cortex (which is divided into two sections – the left frontal lobe being responsible for remembering semantics and language encoding, while the right frontal lobe is in charge of the retrieval of information).

 Hendrix also learned that if any one of the four areas was damaged, such as through an accident or a stroke, the other areas would slowly adapt to help continue the role of the affected brain activity.

 Because the cerebellum is located at the back of the brain, and both the hippocampus and amygdala are near the brain’s center deep near the brain stem, Hendrix needed to focus on the prefrontal cortex, which is at the front of the brain. The right frontal lobe would yield the richest storehouse of acquired lifetime information. Plus, the bonus factor here was that any surgical implantation in the brain could be done directly as a quick, out-patient procedure through a tiny incision in the trans-orbital cavity above the eye socket, much as lobotomies had once been performed.

 Drake next tackled the micro-engineering of a compact, 3x3x1 millimeter transmitting chip which would then relay all of a subject’s memories wirelessly to a digital collection bank outside of the body. Because the human brain and the rest of its nervous system operates on electro-chemical impulses, brain neurotransmitters could be tapped just like electrical wires, with all targeted memories being recordable as millions of electronic data impulses, then reassembled into live images and sounds. In addition, the living brain's own electrical activity powered the transmitting chip. These remarkable and complex experiments took Hendrix and his team just over three years to perfect.

 The next phase of the project was the crucial testing on living creatures with similar brain components, namely, chimpanzees and dogs. Drake and his fellow researchers were fascinated seeing the later playback of the subject animal’s thoughts and reactions as relating to food, smells, sounds, sights, sex, fighting, dreams during sleep, and especially when interacting with humans.

 Carefully screened human volunteers came over the next three years. Over eight thousand people – male, female, young (minimum age 18), old, from all races and cultures -- were given the implants, then their memories were successfully recorded and re-played from the secure digital collection vaults. Even some non-violent inmates were voluntarily recruited from the nation's prisons for testing, with the bonus of having two years removed from their incarceration sentences.

 Dr. Drake Hendrix finally undertook the brain implantation himself, seeing as by now he was absolutely convinced of the safety, ease, and importance of his revolutionary memory retrieval and storage procedure.

 Here is his description of his experience:

 "First, I was given a mild sedative. Then I was administered a short electroconvulsive shock, which rendered me unconscious for the ten minutes it took to set the tiny transmitting microchip into the prefrontal lobe of my brain. When I recovered, I experienced no post-placement pain or discomfort. I felt normal and relaxed, and was able to go back to work immediately. My wife, Sonja, and our two children, Reed and Lyla, were relieved when I came out of the operating theater confident and smiling."

 Drake was amazed when he viewed the playback of his life, from infancy up to his current age of thirty-eight. Some of his memories he had easily recognized and remembered, but others, he discovered, had been completely forgotten until he saw them again. Powerful emotions were resurrected as the inventor once more saw his life from the vantage point of his baby crib, then from his early school days, his boyhood friendships and family interactions, seeing his adored pets, his observations of nature, his playing sports, his night dreams and fears, his first romantic kiss as a teen-ager, and more. The sophisticated digital retrieval software condensed a person's life into a one-hour data collection cylinder about the size of a small computer flash drive. This, in turn, could be expanded into a seventy-two-hour, more detailed playback by clicking on a scene for further elaboration. For the ultimate viewing experience, up to 3000 hours of one's life playback was possible, theoretically for anyone's mind recorded from infancy to age one-hundred.

 Dr. Hendrix finally called a major news conference for the world's voracious Media networks. He was flanked -- in front of the many spotlights, microphones, and cameras -- by his impressive forty-person team in their professional white lab coats and his proud, beaming family.

 "My team and I are pleased to announce that our memory implantation and retrieval experiments over the last seven years have been successful. We are naming our new discovery -- and recently patented corporation -- "PERMAX." This is short for Preserved Electronic Retrieval of Memory And related eXperimentations. Our goal is to set up twenty-four clinic-data centers around the world which will offer the safe implantation procedure and subsequent secure storage of human memories. These facilities will be opened soon to the general public at the price of 25,000 Globals [the One World currency] per person. PERMAX will remain a non-profit entity for the good of humanity, so this nominal amount will only cover our basic operational costs. We anticipate that corporate sponsorships and other scholarships will become available in the near future for those who are eligible but who have modest means. The generous remaining three-year (of our original ten-year) grant funds from the Bill and Melinda Gates Foundation -- and we deeply regret they did not live to see this day -- will be dedicated to the systematic cataloguing and analysis of the vast memory data that will initially be collected. We will focus primarily on those contributors with scientific, medical, technical, educational, leadership, and entrepreneurial backgrounds. This will naturally expand over time to include those who specialize in literature, music, the arts, history, philosophy, religion, and in all additional avenues of human endeavor, including Olympic and professional athletes. When the Foundation grant funds are exhausted, we at PERMAX will continue to dedicate our resources to moving forward with this important task, and share our findings with the world. Thank you for coming, ladies and gentlemen, and now I will be happy to take any questions you may have."

 Dr. Hendrix stayed for an additional fifty minutes as he was peppered by the Press, answering, for example:

 "Yes, our research shows the procedure is completely safe."

 "The security at our facilities will be first-rate, and all gathered data will be encrypted for privacy."

 "We have no plans at this time to offer the procedure to those under the age of 18."

 "Yes. If upon viewing the playback the subject wishes their data erased, they will have the legal right to do so."

 "Yes. The microprocessor can be easily removed from the brain, should that be requested."

 "No. This project is not related to robotics or to artificial intelligence. The procedure is merely a recording tool, not a means to control in any way an individual's brain."

 PERMAX ran smoothly according to plan for its first eighteen months. But then, serious problems arose.

 First, religious leaders and theologians hotly debated the ethics and morality of recording a person's private, innermost thoughts for posterity. Was this project simply more hubris from mankind, in its relentless, egotistical quest for a kind of Godless immortality? The Vatican itself was especially suspicious and concerned. Moslems scoured the Koran, and Jews analyzed the Torah, each looking for definitive answers.

 Next came the lawyers. Who legally owned one's memories -- PERMAX or the individual? What if private data was stolen or released to the public without one's knowledge or authorization? The greedy soon began anticipating publicized landmark, and lucrative, lawsuits.

 Military leaders then began quietly brainstorming ways that PERMAX could be secretly utilized for intelligence gathering and counterintelligence.

 Politicians baldly wondered how best to tax the project, as it became increasingly accepted and popular. And could memory data be accessed covertly on one's political opponents to embarrass or derail their election possibilities?

 Inevitably, the world's criminal element also came into play. Organized crime -- and outlaw computer hackers -- gradually but silently breeched PERMAX's security walls, and its precious data began to be siphoned off. The wealthy and powerful were blackmailed, corporate secrets were gathered and sold, and bank accounts were looted from numbers that had once been simply memorized. This was all possible because no one's memories could be blocked or altered -- the brain's implanted PERMAX microprocessor simply gathered up everything stored and wirelessly transmitted it to a digital storage cylinder without discrimination.

 Drake Hendrix and his company team desperately tried to stay one step ahead of thieves by using specialized data virus patches, elaborate new encryption strategies, and further intense security measures. Each of these worked for a time, but sooner or later, new illegal incursions erupted and then spread like a cancer.

 Meanwhile, the world's global economic system became alarmingly strained. Governments frantically focused on their own dwindling natural resources, and their unemployment forecasts, rising national debt, market shares, and trade imbalances. Especially in the cities, leaders worried about panic and social unrest, and hence focused anew on ways to keep their populations under control. Taking a clue from China -- the largest, most powerful, and most complicated country on earth -- a majority of governments now began severely restricting privacy rights and civil liberties, all under the guise of increased "safety and security." Surveillance cameras were set up on street corners and in public buildings and business offices virtually everywhere. Soon, every person was required by law to have a microchip implanted in their arm so that their movements and purchases could be monitored at all times. Neighbor spied upon neighbor, with social reward credits and special privileges given to those who exposed any dissent against the paranoid authorities. In just one telling instance, freedom of speech, freedom of the Press, freedom of assembly, freedom from unlawful search & seizure, and the right to bear arms were all declared null and void and were finally removed from the American Bill of Rights by the year 2055. Totalitarian brutality had arrived with a vengeance. Protests were violently crushed. Resistance became futile...

 By now, even PERMAX was being forced to conform to government dictates for State power and control. Beginning with the United States where PERMAX was headquartered, governments demanded that all of their current citizens, as well as all newborns, be given the memory transmitting implant. Seeing as this procedure would now be paid for out of public taxpayer money, governments tried to sell their idea to Dr. Hendrix and his PERMAX team from the standpoint of making them some of the wealthiest men and women in the world. But privately, Drake and his associates were horrified. Publicly, they stalled for time while they tried to create a plan to halt such complete government access to everyone's life memories for assuredly nefarious purposes.

 Because all communications were now being tapped between Hendrix and his twenty-four world PERMAX facilities, he decided on a bold idea. He would personally travel on the corporate jet and visit each facility ("on a routine inspection," if pressed), and secretly ask for the data cylinders of the most intelligent and useful memory contributors from each trusted director's storage vault. These he would quietly and securely keep. Then he whispered a single code word ("OBLITERATE") into each director's ear, instructing him or her to destroy all remaining data cylinders, technological protocols, and all other company records and equipment when that code was given. Nothing must be left behind for others to use in their sinister ways! Drake Hendrix vowed.

 After his month-long journey to all of the company's facilities on each continent, the inventor had covertly collected 528 memory data cylinders. These were to be the protected repository of the world's best and brightest thoughts and ideas of this very troubled era of human history. Drake knew their contributions could not and would not be lost.

 Announcing publicly that he was taking his first, brief Earth-orbital vacation on one of the many space tourism companies that had successfully sprung up over the last two decades, Hendrix smuggled his precious cylinders aboard the twelve-passenger tourist spacecraft, the "Excelsior," in his allotted personal duffle bag. Before leaving home, he gave his wife, Sonja, the code word OBLITERATE, and told her the exact day and time she needed to set up a simultaneous video conference call with all twenty-four company directors and deliver this one-word secret message.

 The Excelsior launched smoothly two weeks later without any publicity. Such excursions had become commonplace by now for the fortunate still rich and famous of the world.

 Dr. Hendrix waited until the time he knew that the other passengers would be taking their sleep period -- the time he had previously informed his wife about. Taking his personal duffle with its 528 cylinders in it, he went to an airlock and emergency de-pressurized it, setting off several flashing alarms. Quickly yet carefully, he placed the bag in the airlock and then resealed it, finally releasing the outer hatch of the spacecraft and ejecting the contents of the cavity into space at high speed. Seconds later, the shocked Excelsior's co-pilot came rushing in to the compartment where Drake stood, calmly smiling and satisfied. The memory cylinders would travel safely through space and out of our solar system until such a time when they would hopefully be intercepted, decoded, and understood.

 Sonja Hendrix did exactly as her husband had directed, and all over the world, the PERMAX facilities and everything in them were rendered permanently inoperable within thirty minutes. All data files were erased.

 Dr. Hendrix and his brave associates knew that they and their families would face severe consequences for their radical measures, but each was personally convinced that their actions were done with the best intentions for the future of the human race...

 THE END

 by Jack Karolewski

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