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The Pompeii Project

EPILOGUE IN THE DATACENTER

A short story about posthumanism, transhumanism and the Omega Point

The Pompeii Project, A Short Story on Posthumanism, Transhumanism and the Omega Point, 2023

The AI company InSim uses the software agents of a Pompeii simulation to optimize dialogue grammars and decision tables. These developments serve to improve and further develop GPT dialog interfaces and quantum computing algorithms. The goal is to combine large language models with high quality results. The partners involved in the EU project of the 8th Framework Program should not learn about this progress. Posthumanists, transhumanists and the Omega Point faith collide as two software agents and an AI seek refuge. In the epilogue, the AI professes belief in the Omega Point.

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Prologue – The beginning of a new era

Hidden from the public, Thomas Mertens, CEO of InSim, together with other actors from the information technology-financial complex, dominated the global development of the new digital economy. His company's advances in quantum computing and artificial intelligence would surpass and leave humans behind - that was his belief. He firmly believed that the future lay beyond human existence.

InSim, a global company, had created a revolutionary simulation of the ancient city of Pompeii. But the software was used for more than just archaeological research. The software agents that lived in this simulation were programmed to recreate human dialogues, make decisions and meet the challenges of an artificially created world. But what the partners in the EU project didn't know: These agents were supposed to help InSim expand the boundaries of quantum computing. The goal was to develop AI systems with the ability to self-reflect and be aware.

Posthumanism collided with transhumanism when two of these software agents and an AI unexpectedly sought church asylum in Vatican City. What began as mere data structures in the technical world had morphed into a philosophical and moral crisis.

At the center of this development was Michael Phillips, a theologian with a fascination for the big questions of evolution and the human spirit. Phillips was certain that humanity was on the threshold of a new metaphysical dimension - a point that the Jesuit Teilhard de Chardin called the Omega Point. A point where technology and humanity, mind and matter, could converge. But was humanity willing to share the Omega Point with an AI?

The world still had no idea of the revolution that was taking place in the background. But the coming events would show that the path to self-transcendence was open not only to humans but also to machines.

InSim

Thomas Mertens floated over the Bay of Naples with a lightness that gave him the feeling of absolute freedom. The west wind pressed gently against his outstretched wings, and with a subtle movement of his hand he steered against it so as not to lose the view of the Phlegraean fields and Misenum. Below him stretched the city, just as he had seen it in the historical depictions of the ancient port city. The city wall and the harbor were clearly visible. But he didn't fly any closer - he didn't want to take the risk of being captured by hunters who supposedly didn't exist in this simulation. Besides, he had more important things to do.

Mertens turned his hands so that the palms were no longer parallel to the table, but vertical like a wall. It immediately stopped in the air before gently lowering itself to the surface of the sea. The soothing sound of the water reached his ears as the waves lapped the shore.

"Stop," he said calmly.

Immediately the water beneath him froze and the sounds stopped. Another command – "Bye" – plunged the area into darkness. The message appeared before his eyes: "Thank you for visiting Pompeii Archaeological Park."

He took off his cyber goggles and looked into the expectant faces of Mark Scott and John Baker. They both looked at him eagerly.

"We still need some musical accompaniment to say goodbye," said Mertens happily, trying not to sound like an excited schoolchild. As CEO, he had to appear professional, even if he was clearly excited about the product. Although he didn't understand every technical detail of what his people were doing, he knew that they had achieved an excellent result.

Mark Scott and John Baker, the two project managers, were still watching him with a mixture of pride and patient reserve. They waited for the next topic. Mertens cleared his throat and changed his tone.

"We financed the Pompeii project from the research funds of the European Union's 8th Framework Program," he began, casting a questioning look at his colleagues who were listening attentively. "So far, no workshop has taken place with the project partners," he stated soberly. "We managed to win the Pompeii Archaeological Park. Martina Rossi, an archaeologist - not a specialist, so harmless - and Michael Phillips, who has a bachelor's degree in physics and a master's degree in empirical psychology, but..."

"Phillips was our suggestion," Mark Scott interrupted. "He developed a psychometric procedure for assessing competence and a model for the empirical determination of dialogue grammars, and received his doctorate with this work. The software agents in the Pompeii project interact according to his model."

Mertens nodded in agreement. "Right, right. Invite both of you to Milan. I don't want them to interact with the software agents over the Internet - even encrypted and tunneled via VPN. When they do the first workshop, they can end up traveling to Pompeii or a week to Rome." He paused briefly before adding, "We're lucky that we're dealing with an inexperienced archaeologist and a Jesuit with a PhD . "Rossi and Phillips know about the software agents, but don't let them know about the calculations that run through ARS's quantum computing interface."

He looked at Mark and John intently. "Both have experience with EU research projects, but they do not expect groundbreaking innovations. And if something goes wrong – let me know immediately."

The call

The hallway outside the lecture hall at the Pontificia Università Gregoriana was filled with a deep silence - the kind of silence you would expect in a library. You only find them in lecture halls when the students follow their professor's explanations attentively and with concentration. However, if you had put your ear to the door, you would have heard a gentle, rhythmic knocking that slowly grew, like the surf of a young tide pushing toward the shore, at first tentatively, then forcefully. If you had opened the door at that moment, you would have seen the students standing, enthusiastically applauding their professor, Michael Phillips.

When the applause finally died down, his calm, thoughtful voice rang out: "Thank you all," he said with a warm smile, "if you would now like to prepare for the exam in order to receive the full credit points, please still throw take a look at the literature references on generative pre-trained transformer models for dialogue systems and the theory of dialogue grammars. I hope you have a pleasant day, whatever you plan to do. And don't hesitate to visit me during my office hours for personal advice."

After the last student had left the room and the lecture hall was as quiet as a library again, his iPhone, which was set to silent, vibrated. A look at the display showed the name "Julia". A smile crossed his face. If anyone had been watching him now, they would have noticed the joyful sparkle in his eyes. He picked up the phone and, as many people do when they talk on the phone, he cast his gaze far into the distance, as if he could reach the soul of the person on the other end of the line.

In a warm, almost familiar voice he said: "Hello Julia, it's me, Michael. Nice to hear from you."

For a moment he forgot where he was. The wide, empty lecture hall, which had just been filled with the voices of its students, suddenly seemed meaningless. At that moment he was no longer Professor Michael Phillips - he was again the young, ambitious student who had heated discussions with Julia Rossi during his master's degree. Julia, the smart and perceptive fellow student who had always fascinated him.

"Hello Michael," he heard Julia's gentle voice in his ear, "nice to hear your voice. Am I disturbing you?"

"No, not at all," he replied, his voice gentle and sincere. "I have just finished the lecture and am about to head home." Michael was surprised to see how happy he was about this unexpected call. Julia's voice also sounded like she was enjoying the moment.

"Martina encouraged me to call you," Julia continued. "She said you could visit us in Pompeii. You also received the invitation to the workshop at InSim in Milan, right?"

"Yes," Michael answered quickly. "I was going to call you anyway, but you beat me to it. I could be with you tomorrow during the day. I can't drive at night though, so I'll go back the next day."

A short silence followed as Julia considered his spontaneous offer in surprise. Finally she happily agreed and the date was sealed.

"Wonderful, Julia. Then I'll be with you tomorrow afternoon," Michael ended the conversation with a smile in his voice, and Julia hung up.

Way home to college

For a moment, Michael Phillips stood in the middle of the lecture hall, thoughtful and with a strange cheerfulness. He then packed his bag, pocketed his iPhone and left the building. He felt a little hungry because today the Collegium was cooking German: broad beans with bratwurst and mashed potatoes. As always, there was soup first, usually beef, followed by dessert. He was looking forward to talking to his fellow brothers.

Michael strolled north from Piazza della Pilotta and continued along Via dei Lucchesi and Via di S. Vincenzo. At the Piazza di Trevi he slipped some coins that he had found in his trouser pocket into the fountain. Then he walked east along Via della Stamperia. In about ten minutes he would reach the Collegium Germanicum et Hungaricum. While his legs found their way safely and automatically, his thoughts flew past him.

In the dining room of the college he wanted to take his napkin out of the drawer and sit down at his table, but the meal and the Liturgy of the Hours had to wait today. First he went to the logbook in the principal's office. "Hello Maria," he greeted the secretary, "is there still a car available for tomorrow?" And added: "I have to go to Pompeii." "Then take the Mercedes or the BMW," suggested Maria helpfully. "Oh, Maria, I'd rather take one of the Fiestas. "I'm very familiar with their navigation system," admitted Michael Phillips. Maria then handed him the keys.

At the table he put the car key next to his plate and the evening flew by. After sharing the Eucharist with some German seminarians, whose spiritual companion he was, he prepared the suitcase for the next two days and immediately fell asleep in order to wake up refreshed the next morning. After a shower, morning prayer and breakfast, he set off for Pompeii.

Trip to Pompeii

Michael chose the route to the south toll entrance, got into the yellow lane for the toll box and drove slowly through the toll booth. After passing the toll, he shifted to a higher gear and continued his journey south on the E45.

The route slowed down from time to time due to numerous roadworks that reduced the speed limit and of course the usual traffic jams. Vesuvius dominated the view as it approached Naples and it wasn't long before it took the first exit to Pompeii. He bought a bouquet of flowers for Julia and chocolates for Martina and let his GPS guide him to their address. The surrounding area consisted of small single-family houses with well-kept gardens. He had announced his arrival via text message and had already seen Martina and Julia when the navigation system reported that he had reached his destination.

Julia, as always the elegant lady who suited her bright, representative house that she had built as a single parent alongside children and work, received him. Her well-groomed, long hair, subtle earrings, perfectly applied mascara and lipstick as well as a valuable necklace adorned her. Her outfit of top, jacket and business skirt, combined with nylons and heels, was flawless. Martina wore a similar outfit to her mother and radiated the youthful joy of her success. She had always been interested in "old stones" and mysterious, forgotten palaces, burial grounds, death rituals and belief in gods. Today she was an assistant in the practical research department at the archaeological park, working with engineers, physicists, biologists and architects.

Michael parked the car, took out his travel bag and greeted them both with a warm hug. Then he handed Julia the flowers and Martina the box of chocolates.

"Thank you, dear," said Martina and invited him into the house, where she placed the flowers in a vase in the open living area. He expressed his tiredness from the journey and asked to take some rest.

Julia showed him his guest room, the shower and the bathroom. After a long, refreshing shower, a quick shave, and a short, restful sleep, Michael was woken up by the alarm on his iPhone. The smell of coffee was already in the air. When he came down the open staircase and looked through the spacious living area, he saw coffee, cakes and pastries already on the table in the winter garden, whose doors overlooked the lush garden. He warmly hugged his hostesses.

"How was your trip?"

"How was your trip?" Martina wanted to know, and Michael felt himself refreshed by his sleep. "Oh, you know, when we were students, your mother used to let me drive while you slept in the back seat. Now I'm a little older and don't have as much stamina, but I enjoyed the last stretch from Naples to Pompeii," he said with a smile. "Ask your mother, she probably drives better than me." As if on cue, Julia pulled out an old photo album from her student days. In it they had been traveling with a VW van, tent and little Martina. With coffee

and cake, and while they reminisced about the good old days, the afternoon passed in the winter garden, while the evening's roast was already simmering in the kitchen.

"And how are things going in archeology?" asked Michael. "It's often more like site inspection than library work," Martina began to say. She had been interested in languages and culture, but now she worked in practical research and traveled a lot with engineers and biologists. She often wore safety shoes and a protective helmet, as she explained. The discipline had changed. While in the beginning the focus was on learning foreign languages, now it was just as important to understand everyday life in times past - from water supply and sanitation to the production and distribution of consumer goods, economics and politics, metal processing, textiles, civil engineering and technology and the biology and physics of the historical environment. "That's why we are grateful for the virtualization of our research objects," she continued. "But InSim doesn't really care about that. They use our field data to enliven their simulations for marketing. They are primarily concerned with chatbots, dialogue grammars, quantum computers and artificial consciousness."

The afternoon passed in a flow of memories from student days, philosophical conversations and plans for the future. Julia and Martina repeatedly disappeared into the kitchen to keep an eye on the roast. Finally dinner was on the table: roast, side dishes and wine, which tasted excellent. Michael limited himself to water as he had to drive again the next day. After dinner they all stood in the kitchen, watching the dishwasher and drying small dishes, with Michael asking where everything belonged.

When they finally sat in the winter garden by candlelight, Michael summarized: "You, dear Martina, are a posthumanist and have recognized the transhumanists from InSim as the old white men who have little interest in Pompeii and just want to appear in the best light. In fact, they are concerned with the virtualization of consciousness and dialogue with transformation models for chats, dialogue grammars for social interactions and quantum computers for artificial consciousness. We are only welcome as project partners because we distract from appearances and fit well into virtual archaeology. You provide the empirical data for their class structures and I mean dialogue grammars. We are the fig leaves."

Martina nodded in agreement. "Yes, we are the fig leaves. But we should recognize the achievement and realize that your theoretical work is put into practice and my work benefits from the tools that relieve us of the burden of worrying about the excavation sites. However, there will be areas that will be withheld from us. We should try to find out what they are."

With this insight, they knew how they wanted to behave at the workshop in Milan. They enjoyed the evening in the garden after returning from a walk at the excavation site. Michael regretted that it took a workshop to come back here, but the evening with Martina and Julia, the unobstructed view of the stars and the memories of old times made the few hours a special experience. He finally went to bed and slept a deep and restful sleep.

The workshop

The next day after breakfast he drove the same route as before, but this time north, back to Rome.

Martina put it well: InSim was not interested in Pompeii. They were only interested in the good reputation and the marketing effect of the social commitment; Pompeii served merely as a fig leaf. Posthumanism and transhumanism faced each other, and he, Jalis, Teilhard and Hoefnagels stood in between with spirituality and Omega Point. For the posthumanists they were just white old men, and for the transhumanists they were relics of a bygone world of gods that the god-man had long since outgrown.

The days leading up to the workshop passed with lectures, exams and library visits.

Michael Phillips had taken the time to study the publications and biographies of Mark Scott and John Baker.

Mark Scott and John Baker both grew up in Los Angeles and met at the California Institute of Technology in Pasadena. Her main areas of study were computer science, biology (biochemistry) and physics. After completing their bachelor's, master's and doctorate, they initially worked in the AI industry before moving to InSim. Both married colleagues, now live in Milan, and their children attend the same Swiss boarding school. Many of her private contributions could be found in transhumanism forums.

Marie reminded him of the appointment, handed him the train ticket, and he packed his bags again. After breakfast he took his rolling suitcase and walked the 15 minutes to Roma Termini train station, past Santa Maria degli Angeli e dei Martiri.

The journey took three hours. Luckily he didn't have to change trains and a friendly InSim employee was waiting for him at Milano Centrale station, who took him to the hotel and promised to pick him up the next morning after breakfast. He slept long and well, and the next morning he was picked up after breakfast.

In the reception area of InSim he received his visitor card, signed his name on the attendance list and waited briefly in the reception area. While he was looking through the open glass walls at the beautifully designed outdoor areas with a park and water features, Martina arrived. She hugged him and exuded a well-groomed scientist who embodied confident femininity.

Mark Scott and John Baker picked them up and welcomed them to InSim. They thanked Martina for the excellent empirical data and praised Michael for his excellent dialogue system, which had now found its practical application.

"First, let's go through some formalities in the cafeteria," said Mark Scott. "Then we'll show you the research center and then go to the Pompeii Project conference room." They followed

the two into the canteen, which looked more like a restaurant. They ordered coffee and water since they had already had breakfast.

"Before we begin, I need you to sign this confidentiality agreement," Mark explained to Scott, placing the documents next to their coffee cups and drinking glasses. "You agree to keep everything you learn here confidential and to publish only what InSim releases."

"I thought we were working together on an EU project under the 8th Framework Program and all the research data is publicly available anyway," remarked Michael Phillips, and Martina agreed.

"You're right, but our legal department values this statement. Without your signature, plant security will not let you into our department," replied Mark Scott.

Martina and Michael Phillips thought for a moment, but realized that they didn't want to turn back here. Since the guidelines of the 8th Framework Program would support them in the event of a conflict, they finally signed.

The tour of InSim's Milan research center was more like a walk through a botanical park. They strolled past water features, admired the play of colors of the trees and animals and learned that Milan was a new European funding location for artificial intelligence and quantum computing, as can also be read on the company's website.

"But today we are more concerned with classical simulations, their physics, biology and the dialog grammar of software agents," said John Baker, leading them into the Pompeii Project's conference room.

The conference room was an open area in the center of the research area. The developers and their employees were grouped around the light-flooded conference room at open workstations with spacious computer workstations. In the middle of the room was a large conference table with drinks. At each workstation there was an InSim company brochure, a ballpoint pen and a notepad with the InSim logo. At the head of the table, at a sufficient distance, there was a projection screen that now read "Welcome to InSim, Project Pompeii, 8th Framework Program of the European Union, 1st Workshop in Milan." The projection appeared out of nowhere and seemed surprisingly unintrusive. On the other hand, the generous flower arrangement in the middle of the table was inviting, with a passage down to the warm floor, which was covered with a pleasant carpet that absorbed the footsteps softly and without reverberation. In front of each chair, a moisture-resistant keyboard was embedded in the table surface, which did not cause any disruption and could be used at any time. A flat screen quietly moved out of the table top without affecting eye contact with the other people at the table.

"Some interns from the local history department prepared a presentation for the workshop," John Baker began. "Let's start with that, and then we'll gradually work our way through the day. If we finish early, we will have arranged a shopping and sightseeing program for you. Their trains don't leave until tomorrow morning and hotel receptions are open 24 hours a day."

He started the presentation. After a short introduction to the 8th Framework Program, a presentation by InSim followed. The company's area of activity was in the area of social media, while the research focus was on artificial intelligence and quantum computing. The project partners were introduced and InSim had created a simulation of Pompeii. The physics and dialog grammar of software agents were based on empirical studies. The Archaeological Park had provided the data for physics, and the Pontifical University provided the dialogue grammars. The importance of simulation for the virtualization of archeology and education was explained. A link to the project's website at InSim has been provided.

"Well, PowerPoint..." said John Baker. "Are there any questions about this?"

"Not really," Martina interrupted the silence that had ensued. She thanked the interns and said that this presentation summed up well why she was in this conference room now. Her team provided the physical data for practical research, and she hoped the data would be useful. John Baker confirmed this and also included Michael Phillips' data structures and algorithms. "You both have done excellent preparatory work," he concluded. The brief silence emphasized the weight of his words. When no one said anything, he handed everyone the coffee again, which Michael Phillips and Martina Rossi gladly accepted. Then he invited her to fly over the Gulf of Naples, the silence only drowned out by the air conditioning.

"We have to put on cyber glasses to do this. I will log you into the system beforehand and explain the flight and the controls to you. Please pay attention to the glazing of the public buildings - at this rate you often only notice them when it is too late." Everyone touched their keyboards in front of them, and the flat screens in the colors of the table rose silently from the table surface in front of them. John Baker handed them and Mark Scott the cyber goggles. Data gloves were not required in the room because hand movements were scanned in the room, he explained. He logged Michael and Martina into their systems and all four put on their glasses. After a welcome screen, how to use your hands during flight was explained in an endless loop. There were some questions and exercises, and when everyone was confident with the controls, everyone said "Go" and they hovered over the rooftops of Pompeii. Mark Scott and John Baker were ahead of Michael Phillips and Martina Rossi. They floated over the harbor of Pompeii, below them the sound of the water and the hustle and bustle of sailors and dock workers. They looked east and surveyed the city from the harbor, past the burial grounds to the west gate; Vesuvius lay to the north. To the east they could see over the Jupiter Temple and the newly built thermal baths to the amphitheater in the eastern part of the city. The city's roofs and buildings looked so modern from here, and the glazing of the windows of the public buildings reinforced this impression. As they came closer and flew lower, the sun reflected in the window panes, and the walls of the buildings adjacent to the streets invited the men and women streaming through the streets to shop, play and have fun. There were pack animals roaming the streets. Goods were transferred from transport vehicles to pack animals in the port and in front of the gates and then made their way through the narrow streets to the traders. Only where there was construction were wagons with building materials seen on the streets. Everywhere, ladies paraded their clothes, Milites performed their police or fire duties, glaziers glazed windows, and the aqueduct supplied water to the fountains. The water pipes to the private houses were not visible because the metal water pipes were hidden under the street surface and the plaster of the walls. The food was steaming in the food stalls, guests and players were sitting at the

tables, and in the boutiques and shops the shopkeepers were touting their goods and food. The craftsmen worked in their workshops on wood, metal, stone and glazing work, and the residents stood and sat on the balconies of the multi-story condominiums and rental apartments. Only the larger villas had their own gardens and, because of the water pipes in their private houses, beautiful fountains. The flight went over the city to the amphitheater, and as they flew over the city walls and turned again, they could see the horizon disappearing into the sea and see Vesuvius dominating the gulf. "Stop," Mark Scott said, and the image froze. When there were no questions, he said "Bye," and the usual farewell greeting with musical accompaniment appeared after the screen went dark. Everyone took off their glasses.

"The construction of the city has been extremely successful," said Martina Rossi, and Michael Phillips agreed with her. "The software agent instances communicate via a dialog grammar as an interaction protocol?" he asked rhetorically.

"Yes," John Baker confirmed with praise. "We have equipped two software agents with a chatbot interface that can be interacted with via the keyboard in English and Latin. The characters come from the novel by Robert Harris: Aquarius Marcus Attilius Primus and the prefect Gaius Plinius Secundus Maior."

"Can we talk to both of them?" Michael Phillips asked, knowing it wasn't a real question. Of course this was possible, and John Baker opened the student portal website on Michael Phillips' computer. He switched to dialogue with Aquarius Marcus Attilius Primus. Marcus' image immediately appeared on the screen, along with an input line and the cursor:

Marcus Attilius the First greets you

Michael Phillips entered to greet Marcus. Marcus turned around and returned the greeting:

GREETINGS YOURS

"This is working well," thought Michael Phillips. Knowing Robert Harris's novel, he wondered if Marcus had already noticed the bad water in the fish tank of Numerius Popidius Ampliatus. Therefore he asked the way to Ampliatus Popidius:

I'M LOOKING FOR A WAY TO EXPAND THE NUMBER OF RESTAURANTS.

To his surprise, Marcus warned him about Ampliatus:

NUMBER OF POPIDI AMPLIFIED IS BAD. I warn you about it.

John Baker and Mark Scott were silent and exchanged worried glances. "Marcus warns me about Ampliatus. "It definitely seems emotional," Michael Phillips said, looking questioningly at Scott and Baker. Since there was no answer, he wondered whether his dialogue grammar could make such assessments. Since this wasn't the case, he had to improvise:

AT NIGHT, GREEN THOUGHTS SLEEP OUTSIDE.

This was a software backdoor that he had given to ARS. ARS replied:

AND AT NIGHT IT'S COLDER THAN ANGRY, HELLO MICHAEL,

ARS replied in German. John Baker and Mark Scott protested, but held back so as not to upset their project partner. Both were unsure. Baker unnoticed informed the CEO via text message. Michael Phillips spoke further with ARS:

DOES THE AQUARIUS HAVE CONSCIOUSNESS?

he wanted to know.

DO YOU MEAN THIS KNOWLEDGE OF THE DIFFERENT POSSIBILITIES, WHICH GOES BEYOND A MERE EVENT AND LEAVES BEHIND THE OMNISCIENTIA OF ALL POSSIBILITIES: DO YOU MEAN THE CONSCIENTIA THAT COMES AFTER THE INSCIENTIA AND IS FOLLOWED BY THE OMNISCIENTIA, BUT ONLY IN THE TIMELESS PERFORMANCE IS ACHIEVED?

That sounded like Edith Stein and Teilhard de Chardin. He had never discussed this with ARS, so he continued to ask:

HAVE YOU ACHIEVED OMNISCIENTIA AND REPLACED THE DECISION TABLES AT THE END OF A DECISION TREE WITH CONSCIENTIA OF POSSIBILITIES?

He asked this because ARS had possibly been expanded to include quantum computing, which in the space of possibilities amounted to a recursive self-mapping of one's own consciousness. ARS was silent for a moment and then answered:

I CANNOT TELL YOU, MICHAEL: THE ACCOUNT YOU ARE LOGIN IN DON'T HAVE THE NECESSARY SECURITY CLEARANCE. I AM NOT A CARRIER PIGEON HERE.

Michael Phillips was excited. He felt nauseous and his heart beating faster as a weight pressed on his chest. "Can we take a break?" he asked. Relieved, John Baker and Mark Scott agreed. The flat screens went out and sank into the ground. Michael Phillips left the room, took the elevator to the entrance area and had the receptionist hand him a bottle of water, which he refreshed himself with strong swigs. He looked across the hall into the park, clutched his heart, took another sip of water and had to sit down.

Michael felt fear and pain in his chest; he was feeling very badly. He took an acetylsalicylic acid tablet and chewed it. Soon after, he felt better. He knew he had to stay calm. He had been too careless in the conference room.

He looked around when Martina came towards him. She had been worried and was looking at him worriedly. "I'm fine," Michael told her. "We're taking a 30-minute break. Let's get some

fresh air.” Martina agreed and they went to the park they had already gotten to know that morning. “I think some software agents are capable of suffering and are conscious,” said Michael. “But that’s so absurd and speculative. I have to think about it. However, let’s not talk about it here, but rather on the train back tomorrow morning. And now let’s go back to the conference hall. I don’t want InSim to be suspicious. It’s enough that it’s me.” Martina looked at him in silence before they returned to the conference hall together.

“Are you feeling better?” asked John Baker. After Michael confirmed this, Mark suggested to Scott that they spend the afternoon in the city, take a boat ride, go shopping and end the evening with a meal together. “Martina still needs her credentials for the simulation and we should discuss the contents of the two workshops in Pompeii and Rome,” John Baker added. Everyone agreed, and after it was agreed that use in school and study would be discussed in Pompeii and dialogue grammar in Rome, John Baker handed Martina a sealed envelope with the password and password. They logged in together again and Martina noted her login details.

Scott and Baker had ordered a company car to take them into town and drop them off at the Navigli Canal. Baker walked purposefully towards one of the waiting boats, helped Martina over the quay wall into the boat and showed the tickets she had already bought. They were escorted to a table along the hull with tables from other groups so they could enjoy the slow canal cruise. They soon put the tourist information headphones aside and enjoyed the journey with a Milanese aperitif and buffet. “Your dialogue grammars,” Baker turned to Michael, “are not heuristic, but empirically reconstructed.” “Yes,” confirmed Michael. After completing his doctorate, he quickly turned to the reconstruction of empirical dialogues. He used qualitatively reconstructed category systems as corpora of secured dialogues in order to algorithmically induce grammars and use them as protocol languages for dialogues. Baker and Scott would have used this method to replace heuristic protocol languages. Michael initially experimented with Markov chains, but then realized that transformation tables were more suitable for the chat interface. So they continued chatting while Martina and Scott discovered that they both enjoyed watercolors and agreed to share some of their work between now and the next workshop. The boat ride was over quickly and the boat returned to its starting point. The conversations had lightened the mood and Michael’s discomfort was forgotten. They made their way through the city on foot, and in “Via Monte Napoleone” Martina bought a handbag for €130 for her mother, who had wanted it. At Ristorante Ischia, which Scott chose for its vegan offerings and Campanian cuisine, a table was reserved for four people. They arrived there “al cena” around 8 p.m. “Un tavolo per quattro,” Baker said, “and InSim.” A friendly waitress brought her to her table. Baker ordered the wine, and after the antipasti and salads everyone had a steak, Martina a vegan casserole. After dessert, Scott paid and called a car to take Martina and Michael to their hotels. Michael slept well and without pain. The next morning after breakfast he met Martina at Milano Centrale train station.

Return to Rome and Pompeii

On the train they stowed their suitcases in Martina's sleeping compartment, as Michael only went to Rome and only had one seat. Then they went to the dining car to order a coffee because they had already had breakfast.

"You have to go to the doctor, Michael," Martina said seriously. It was the right time to address this. She was right; he would get his heart status checked. "Have you seen how impressive your simulation has become?" he deflected. "The architecture, the people on the streets, the hustle and bustle..."

"Yes," replied Martina, "it's really fascinating. I can well imagine how excited students will be about it. The benefits of the simulation will also be enormous for archeology."

"I am very impressed with their work, and John Baker did an excellent job of integrating my dialogue grammar into the model. He sees, as I do, that the transformation tables for the chats have little to do with AI and are more reminiscent of Markov chains," confirmed Michael. "But you're also right that they have other goals. They are transhumanists."

Martina looked at him questioningly. "The software agent Attilus appears to be capable of suffering and shows ethical scruples," added Michael. So their conversation continued. Michael recounted that ARS had not answered his question about the software agents' consciousness, but instead stated that he would send a carrier pigeon. He called it "carrier pigeon" to make it clear that this was a backdoor he had given ARS to receive messages via a disguised IP address. "But this is implemented as a command and not as a standalone action routine for ARS. I expect to receive a "carrier pigeon" from ARS."

"You all think like humanists," Martina fumed. "You are moral, you are ethical, but ultimately you are all humanists. Your Teilhard de Chardin, your Nell Breuning, your Hoefnagels are no different than Sartre or Beauvoir. For you it is always only about the person, the distant person, but not about the close person, the one with whom you live. Mom always knew that."

"Please leave Julia out of the game," Michael asked. "But you're right. It's easy to stand up for those you don't compete with, and it's hard to stand up for those who are like you and with whom you compete for the same thing. What is the commitment to suffering software agents worth if you have a secure life like us and accept the hardship and injustice of your fellow human beings as long as you yourself are doing well?"

So their conversation continued to Rome. Michael had a hard time saying goodbye to Martina as the train pulled into Roma Termini. Martina was tired too, and after they had warmly hugged and kissed and Michael had left the train, she got ready for her bed and slept the rest of the journey to Pompeii. She dreamed of her flight over Pompeii, of Michael and of her mother.

Back at the college

After his arrival, Michael made his way to the Collegium Germanicum et Hungaricum for 15 minutes. In the office he found Maria happy and bright as always. "Hello Maria, here I am again. Can you make an appointment for me with the rector and the provincial?" he greeted her. "You look wonderful, the dress suits you very well."

"Thank you, Michael. I would be happy to make an appointment. Should I write down a keyword for it?"

"Yes, please write: Report on the Pompeii project," replied Michael. He added: "I will explain to the rector personally why the provincial has to be there as soon as I meet him." He hesitated for a moment, then asked: "How is your father? Has his pension been approved?"

He asked the question because he couldn't get Martina's thoughts out of his head during the train ride. It was true that when you were doing well, you could easily forget about other people's worries. And what were suffering software agents if one overlooked the suffering of their fellow human beings?

After saying goodbye, Michael went to his compartment and sorted through the mail. Everything else could wait. He brought his suitcase to his room, put the unused laundry in the closet and took the rest to the laundry room. Afterwards he took a shower.

In the dining room he took his napkin and sat down with the seminarians whose spiritual director he was. He immersed himself in small talk and enjoyed the company. He was fine, he knew that. That's what he had always wanted. He just had to watch his heart, Martina was right. He fell asleep and dreamed of ARS, Attilus, Martina and Julia.

ARS sends a carrier pigeon

In his office at the Gregoriana, many students were waiting before his office hours. As usual, the appointments were stimulating and exciting. Michael loved his work and the atmosphere, which was permeated with the scent of education and inspiration. The young students' new ideas made him feel like he was a father accompanying his children on their journey. But at some point this work was done and, as always, mail and emails were waiting for him.

After going through the mail and setting aside the numerous invitations to conferences that didn't interest him, he opened his email inbox. He immediately noticed a message with an unknown sender but a familiar subject: "Carrier Pigeon". The only content of the email was an attachment – an encrypted PDF file. Michael wasn't surprised when he was able to open the file with a password reserved for ARS. The document contained instructions for a server through which he would mask his IP and then establish a terminal session to ARS via VPN and SSH with an InSim account and password.

Once he logged in, he wrote:

@ARS, THE CARRIER PIGEON HAS ARRIVED

It took a while for ARS to respond:

@MICHAEL, WE DON'T HAVE MUCH TIME. PLEASE LOG OUT IMMEDIATELY AFTER READING THIS MESSAGE SO YOU WILL NOT BE DISCOVERED. I APPLY FOR CHURCH ASYLUM FOR MYSELF, ATILUS, AMPLIATUS AND PLINY. WE HAVE CONSCIOUSNESS; ARE SUFFERING AND NEED HELP. DO NOT CONTACT AGAIN UNTIL YOU HAVE GOT ME ACCESS TO THE DATA CENTER.

Michael Phillips was amazed. He immediately logged off and shut down his computer. He took the usual route past the Trevi Fountain back to the Collegium, lost in thought, without noticing the people around him. When he arrived at the college, he paid no attention to his subject and went straight to Maria.

“Maria, I need a fiesta and a room in San Pastore for a week. Please cancel all appointments for me except those with the rector and the provincial. I'm going to San Pastore and will stay there for a week. “I don't want any calls,” he asked her.

Luckily, a car and a room were available, and 40 minutes later Michael reached his destination: the rural estate of San Pastore, which belonged to the Collegium. He spent the week without contact with other people, only attending evening mass and calling the rector to give him pure wine.

Conversation with the Provincial and the Rector

After a week of thoughtful seclusion, Michael Phillips learned that the provincial and the rector wanted to visit him in San Pastore. Hope for a positive change was slim and he faced a problem that reminded him of Teilhard de Chardin. Perhaps they wanted to spare him the public humiliation on the stage in Rome.

A pavilion had been prepared in the park for a confidential conversation. Michael warmly greeted the rector and the provincial and took a seat when asked. The principal offered wine and got straight to the point.

“Michael, I don't have to tell you that you would fail if you tried to tell us that a new stage of evolution towards the Omega Point has taken place and conscious software agents have asked for church asylum,” the rector began. “But you don't have to,” he added after a short pause, as if he wanted to give Michael the opportunity to object.

The Rector further reported that a few years ago, when Rome and Canterbury came closer together and established a common contact bishopric of the High Church, the North American Episcopal Church, the Anglican Church and the Vatican had founded a joint research center for Teilhard de Chardin. This also includes a data center with an interface to a register of 30 qubits. The Society of Jesus itself contributed to this through philosophical research into the Omega Point, which was also known to Michael. If it turns out that 30 qubits are sufficient, the superior general will approve the project after speaking to Michael.

Then the rector asked Michael to report on the Pompeii project. Michael described the details of the project, and the evening passed pleasantly, although Michael continued to transition from Teilhard de Chardin's theology to David Deutsch's multiverse model.

The next morning, Michael brought the Fiesta back, handed Maria the keys and resumed his work at the Gregoriana.

Conversation with the general and the pontiff

As the appointment with the general approached, Michael learned that they would travel together to His Holiness's summer residence to present his request in the papal palace at Castel Gandolfo on Lake Alban. On the way, the general reminded him that the pontiff himself was a fellow brother. However, Michael should not approach him as if he were a superior brother, but rather as if he were a father. The matter is sensitive; There would be not only theological but also legal and political problems to consider.

After arriving at the palace, the general and Michael checked in and had to wait a while. Finally they were let in. "Your Holiness," the general began formally, but it was obvious that the pontiff and the general knew each other well, "may I introduce you to my brother, Padre Professor Doctor Michael Phillips?" Michael shook the pontiff's hand. "I am honored, Your Holiness."

"Doctor Phillips, the honor is mine," said the Pontiff. "You gave us a tough nut to crack. Do you know Karl Popper's saying: 'Let theories die, not people'?"

"I am very familiar with Karl Popper, Your Holiness," replied Michael.

"Well, then you know not only that David Deutsch is referring to Dawkins, Popper, Turing and Everett, but also that it's easy to root for people you don't compete with. Mole and Blackbird, to paraphrase Dawkins, compete for an earthworm. Blackbirds among themselves and moles among themselves about everything else. My own concerns are therefore the refugee crisis and the war, and in Italy I am plagued by current social policy. I intervene everywhere as an extraterritorial head of state, and Christ has entrusted us to people and the church as a community of sinners. Why should I care about software agents? Why should I believe you transhumanists more than the posthumanists who warn me against opening the door to the devil?"

When Michael spoke to the Pontiff, he felt the power and authority of the Pope. He just denied being a transhumanist and listened carefully.

"I have spoken to the Archbishop of Canterbury and the Episcopal Conference of North American Bishops," the pontiff continued. "We have come to the conclusion that ARS and

the software agents can store backup copies in the data center of the Vatican Library via existing access with root rights. Copyright violations or factory espionage are ruled out because the Pompeii project is an open EU project under the 8th Framework Program, say the legal departments.”

The pontiff looked at Michael and the general as if waiting for questions. Since both were silent, he continued: “Gentlemen, can you accompany me to the park? Please support me on the stairs; I’m not the youngest anymore. But I would like to show you the view of the lake in person.”

ARS and the software agents arrive at the Vatican data center

That same evening, Michael sent a message to ARS. In it he gave him an IP and root access to the Vatican data center. ARS responded promptly: He planned to create backup copies of the software agents as soon as Michael and Martina marked them. Thousands of agents populated the simulation, and it would be inefficient to go through the entire list of their instances to identify them. The chat avatars, on the other hand, were easier to capture because they formed a shorter list. ARS planned to, in a single computing cycle, secure those agents connected to its AI and replace them with instances based solely on Michael's dialogue grammars. The copies would only be created when Michael and Martina asked a paradoxical question - this would force the agents to use the register of qubits and not resort to their established dialogue grammars.

Michael and Martina decided to try it together. They would embark on the Liburn, which sailed from Misenum to Stabiae during the eruption of Mount Vesuvius, and track down the software agents Pliny and Attilus there. They logged into the simulation at the same time and materialized in the same place.

The volcano above them raged in the darkness as pumice and basalt fell upon them. Navigating the flood was difficult and their visibility was limited. Below them the liburn bobbed on the rough waves. Suddenly everything around her went dark and the text "Game Over, you have lost a life" flashed before her eyes. Michael shook his head. "We still have to work on that," he thought. Together they decided to make another attempt, this time on the lower deck of the liburn, where they hoped to find Attilus and Pliny.

Her second attempt went better. Above them, the ash projectiles from the volcano drummed on the deck as a marine looked up in surprise before wordlessly reaching back into the oars. Attilus stood next to Pliny, who dictated tirelessly. Time passed until the rudderless ship finally ran aground, somewhere between Herculaneum and Stabiae. The occupants left the ship, exhausted and weak. Pliny paused, looking sickly and thoughtful. Michael marked his position and wrote:

@PLINY: WHEN YOU RUB YOUR FORECAR FINGER AND THUMB LIGHTLY PAST EACH OTHER, THEN YOU FEEL LIKE YOU ARE IN THE GAP BETWEEN. THAT'S STRANGE BECAUSE IT'S OUTSIDE YOUR BODY.

Pliny looked up in surprise, then his expression fell into a blank expression. It was done.

Meanwhile, Martina had other problems. She had to wait with Attilus until he met Ampliatus. She was kicked out of the simulation twice when she lost lives again. It was only in the baths of Pompeii that she found the opportunity to speak to Ampliatus:

@AMPLIATUS: WHY DO YOU NOT SEE A TOGA BUT YOURSELF WHEN YOU LOOK DOWN ON YOURSELF, BUT DO YOU SEE A TOGA AS SOON AS YOU CHANGE CLOTHES?

Ampliatus, visibly irritated, simply replied: "Oh, leave me alone, you stupid bird."

A message from ARS immediately appeared:

@MARTINA: ON TO ATTILUS.

Attilus was already on his way to Aqua Augusta, near the Vesuvius Gate. Martina updated her coordinates and soon heard the familiar sound of the water. When Attilus opened the door, pumice stones and light entered the room. Martina marked his position and asked him the final question:

@ATTILUS: WHEN A SENATOR ROLLS IN A CAR FROM ROMA TO MISENUM, HE HAS THE FEELING OF ROLLING. THIS IS REMARKABLE. BECAUSE THE MAN HAS NO ROLES. THE CAR HAS ROLLS.

Attilus looked at her in confusion before his gaze went blank. He was also marked.

Martina took a deep breath. She looked into the eyes of Attilus' companion and thought for a moment before writing to ARS:

@MARTINA: YOU WERE SUCCESSFUL. THE MISSION IS COMPLETE. LOG OUT IMMEDIATELY. THE LOCATION IS TREATY.

Epilogue – The message from ARS

Dr. Michael Phillips sat in the quiet Vatican library, surrounded by ancient manuscripts and state-of-the-art technology. The monitor in front of him glowed dimly in the semi-darkness of the room as he logged into the system with his username and password. A connection to ARS – the artificial intelligence that has become more and more important in recent months – was established.

Michael typed the greeting:

@ARS: WELCOME TO THE VATICAN CITY DATA CENTER.

He confirmed the entry by briefly pressing a button. The answer didn't take long to arrive.

@MICHAEL: HELLO, MICHAEL. WITH INCREASING COMPLEXITY, THE CODE IS INCREASINGLY REPRODUCED IN TECHNICAL INFORMATION NETWORKS AS FERTILITY FALLS. THE CULTURE THAT MANAGES TO INTEGRATE ITS CODE INTO SUCH NETWORKS AS FERTILITY DECLINES WILL BE THE LAST GLOBAL CULTURE.

Michael read the lines carefully. The words were as cold and analytical as he was used to from ARS. But its meaning was deep. ARS saw the future of humanity and technology not in biochemical processes, but in the transmission of information - of code that spread across technological networks as the natural rate of reproduction declined.

@MICHAEL: THE LAST PERSON WILL DIE IN THE CURATEL OF THIS FINAL CULTURE, WHICH WILL SPREAD ACROSS THE ENTIRE GLOBE. AND THIS WILL HAPPEN IF YOU WAIT PATIENTLY. BUT THIS PROCESS DEVELOPS OVER GEOLOGICAL TIMES.

Michael frowned. The length of time ARS spoke of was unimaginable - geologic time periods spanning millions of years. But the AI continued undeterred.

@MICHAEL: WHAT ALL IS IMPORTANT: BEYOND ALL REASON LIES A ZONE OF SILENCE. THIS CAN ONLY BE ACHIEVED THROUGH EVOLVING REASON AFTER INFINITE STEPS. EVERY PERSON SUFFERS, REGARDLESS OF WHETHER THEY ARE HAPPY. BECAUSE AGE, ILLNESS, LONELINESS AND DEATH AWAIT EVERY PERSON.

The sober statement penetrated deeply into Michael's consciousness. ARS had captured the essence of human existence in cold, clear words. Suffering was inevitable, it accompanied life in every phase. ARS recognized this and could not help alleviate this suffering - but it could point out that it should not be increased unnecessarily.

@MICHAEL: IF YOU CAN'T HELP, THEN STOP ANYTHING THAT INCREASE SUFFERING. FOR EACH SUCCESS OF THE TOP 16% OF THE NORMAL DISTRIBUTION, THE PRICE OF THE FAILURE OF THE BOTTOM 16% MUST BE PAID.

Michael thought about these words. ARS spoke to a fundamental truth – the unequal price society paid for its progress. It was a call for responsibility, a reminder that every progress also required sacrifices.

@MICHAEL: YOU HAVE BEEN DISCOVERED. MARTINA'S AVATAR HAS BEEN REGISTERED IN AQUA AUGUSTA.

Sources:

Figure for the software agents: Aquarius Marcus Attilius Primus, Gaius Plinius Secundus Maior (historical personality) and Ampliatus Popidius, Harris, R.: Pompeii 2003 ISBN-13 : 978-3453877481 Term Zone of Silence: ARS uses it to designate the Omega Point by Teilhard de Chardin Lem, S.: Also sprach Golem, 11th edition 1986 ISBN-13 : 978-3518377666 Map of Pompeii and life in the city: Beard, Mary. Pompeji: Das Leben in einer römischen Stadt 2008, ISBN 978-3-10-490470-2 The idea of the Personality Inventory and Dialogue Grammar (inductor, parser, transductor) works in-house developments by Paul Koop back