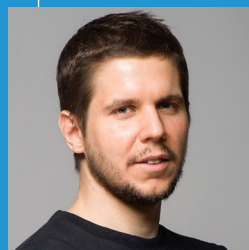


Games Might Filter Out the Need to Try Everything in Real Life, Offering a Space to Learn and Grow without Real-World Consequences

Interview with Marek ROSA

Marek Rosa

Keen Software House, GoodAI
Na Petynce 213/23b,
Břevnov
169 00 Praha 6
CZECH REPUBLIC
marek.rosa@keenswh.com



Marek Rosa, a visionary entrepreneur, game developer, and artificial intelligence researcher, stands at the intersection of creativity and cutting-edge technology. As the founder and CEO of Keen Software House, he is best known for creating *Space Engineers*, a groundbreaking sandbox game that combines engineering, construction, and space exploration. Beyond his achievements in game development, he is also the founder of GoodAI, initially a research organization dedicated to advancing general artificial intelligence (AGI) for the benefit of humanity. One of his latest projects is the concept of *AI People*, virtual entities designed to simulate human-like intelligence, behaviour, and interaction. These AI-driven personas are not only transforming the gaming industry by creating more lifelike and adaptive non-playable characters (NPCs) but also hold potential in areas such as training simulations, personalized AI companions, and ethical AI development. This innovation reflects his vision of bridging the gap between artificial intelligence and human interaction in meaningful and ethical ways.

Mgr. Michal Kabát PhD.

University of Ss. Cyril and Methodius in Trnava
Faculty of Mass Media Communication
Nam. J. Herdu 2
917 01 Trnava
SLOVAK REPUBLIC
michal.kabat@ucm.sk



Michal Kabát studied media communication and now is an assistant professor at the Department of Digital Games of the Faculty of Mass Media Communication, University of Ss. Cyril and Methodius in Trnava, Slovakia. His academic interests are particularly focused on mapping the history of local gaming experience in post-socialist countries and the current development of virtual worlds. He is involved in game jams, eSport and video-streaming activities at the university.

Michal Kabát (M. K.): I first met you in 2016 when you visited our university to talk about *Space Engineers* and how AI could be used to colonize the galaxy. You mentioned a plan to build a school for AI that could align it with human goals. Later, in 2019, I visited GoodAI's office and spoke with Martin Poliak, and I got the impression that your focus had shifted toward more short-term goals. What has happened during those years and since then?

Marek Rosa: A lot has happened. We moved Keen Software House and GoodAI from Karlín to the historic Oranžerie building, and we reworked our mission. I founded GoodAI with the vision of conducting basic research to develop AGI. Back then, I was not convinced that deep learning AI – even models like GPT-2 – would be the right approach to achieve it. Then everything changed with the introduction of GPT-3. It demonstrated the ability to generalize beyond its training data, and we shifted our focus entirely to building upon this approach. Now, we are developing a game titled *AI People* that uses GPT to create believable characters and interactions within various scenarios.

M. K.: So, are both GoodAI and Keen Software now focused on games? *Space Engineers* is 10 years old. Does it still have an active community?

Marek Rosa: Yes, absolutely. Just yesterday, we released a teaser for our new game engine VRAGE3, which powers *Space Engineers 2*. Our games are not built on Unity or Unreal because those engines were not available when we started. Even now, they would require heavy modifications to handle voxel graphics and simulation. Building our own engine has been much more fulfilling. With our latest release, we introduced a unified grid system with 25-centimetre blocks, allowing the community to build with greater fidelity and flexibility. The feedback has been fantastic so far.

M. K.: You have been using voxel technology from the beginning. Do you think this paradigm of volumetric and 3D imaging represents the future of computer graphics?

Marek Rosa: I do not think it is relevant anymore because, in five years, all visual representations will likely be generated live by neural networks.

M. K.: As video?

Marek Rosa: Yes, as interactive video.

M. K.: But at some point, is not it still important how the models are built and how the game mechanics behave?

Marek Rosa: That can all be generated on the fly. The key is managing continual memory – what has already been shown to the player – and building upon it. Interestingly, we still do not fully understand how our brains interpret reality through memory, whether it is through polygons, voxels, or pixels. Ultimately, it does not matter. Generative AI will soon be able to produce anything live. You will define the style, feed it inputs, and the AI will deliver the desired visuals without us needing to know exactly how it works.

M. K.: The last time I saw you speak at an event, it was not directly about games. You were discussing resilient civilizations. Could you summarize what you were presenting?

Marek Rosa: The main idea is to consider how to build a resilient civilization that can grow, and can withstand shocks and accidents while maximizing personal freedom. We have started hosting meetups to discuss these topics. For example, we explore how to design a society around an economic system and, on a personal level, how individuals can become resilient, informed, and educated citizens. I believe strong democratic systems can only thrive with people who cannot be easily manipulated or controlled.

M. K.: What role does AI play in such a project?

Marek Rosa: We are exploring the idea of substituting certain state functions with AI – but not in the sense of developing software that replaces politicians. Instead, we are looking at decentralized solutions with no single point of failure, controlled democratically by the people. A state should be run by competent managers. Machines are already better at managing processes in many areas, and they are much harder to corrupt or intimidate than humans. I do not care who – or what – runs the state as long as it maximizes personal freedom while maintaining transparency and competence.

M. K.: I can imagine such a society, but as you mentioned, it can only work if people are well-educated and resilient against misinformation and biases. Throughout history, there has never been an era where such people were in the majority. Even ancient Greek democracy suffered from populism. Should we focus on overcoming this, or should we use AI to guide people toward what we already know is good for them?

Marek Rosa: I am not sure what the best solution is – that is why we are discussing it. Personally, I vacillate between two approaches. On one hand, I believe in helping people around me become more resilient and critically thinking. On the other hand, I sometimes feel that the return on investment is too low, and it is better to focus on those who are already excelling. It is like having a weak, unmotivated teammate: you can spend time and energy helping them improve, or you can invest those resources into someone already performing at a high level. I usually choose the latter. Similarly, if I lived in a society dominated by easily manipulated individuals voting for populists, I would likely move elsewhere or try to build my own system. That said, with the rapid pace of technological development, we may soon achieve practical immortality. In such a world, coexisting with flawed individuals becomes crucial if efforts to help them fail.

M. K.: How do you envision the future of work in such a society? How will AI impact the labour market?

Marek Rosa: I am surprised more people are not discussing the economic impact of AI replacing human workers. It is inevitable. Just as horses could not compete with trucks, humans will not be able to match AI's intellectual capabilities. The notion that humans augmented by AI tools will remain employable holds true only until human limitations become a bottleneck. When that point is reached, businesses will have to choose machines over people to stay competitive. This will create a major shift. We must consider what these unemployable individuals will do and what leverage they will have in society. It is possible

we will see new superpowers emerge from enterprises that fully embrace AI and eliminate human workers. At the same time, the traditional economy might collapse because there will be no purchasing power without salaries. One potential outcome could be 'AI states' that, like the Earth, provide resources without asking for anything in return. Universal basic income is already being discussed as a way to address this scenario.

M. K.: Economic challenges aside, Voltaire reminded us that work protects us not only from need but also from boredom and vice. Without work, boredom and vice might become more significant issues. One researcher studied bonobos, which have all their needs met in the wild, yet spend their free time harming others in complex social hierarchies. Could humanity face similar challenges after losing work-oriented life goals?

Marek Rosa: Yes, I think we are still very similar to bonobos. While our intellect allows us to build institutions that curb destructive behaviour, such institutions will become even more important in a world without work.

M. K.: Institutions could also evolve into sophisticated tools for harming individuals or groups. If the bonobos were smarter, might they not build institutions designed for harm?

Marek Rosa: Perhaps, but from an evolutionary perspective, societies that invest in benefiting individuals rather than harming them tend to grow and thrive. Throughout history, this has been the key difference. Resources invested in positive outcomes yield stronger, more resilient societies over time. On the flip side, games could also help. They might act as a virtual filter, allowing people to explore and learn from experiences without real-world consequences. Players can 'die' thousands of times and understand that heroic sacrifices might not always be the best contribution to society.

M. K.: Do you think humanity's future could resemble a *Matrix*-like scenario? Most people could be submerged in virtual experiences they find pleasurable, leaving a small minority in the real world to enjoy its resources and space.

Marek Rosa: If I knew the answer, I would know where to invest for the future. But maybe there is a third category – people who do not just seek pleasure but have the ambition to build, explore the universe, and extend human civilization. If AI takes over those roles more efficiently, it might reduce the need for such people. However, if we maintain control over AI as a tool, it could serve to help us achieve those larger goals instead of relegating us to endless, empty experiences.

M. K.: Some say games prepare children for the jobs of the future. From *Monopoly* to *Tetris* to *Minecraft*, games teach principles like resource management and creative problem-solving. Could the games you make prepare people for future challenges? Could AI People pave the way for artificial influencers or even governance?

Marek Rosa: That is a great question. We are experimenting with agents capable of sustaining memory and developing characters over time. This could be a way for AI to integrate into our lives and assist both individuals and groups. One of our main goals is to create believable entities you can truly interact with – something akin to *The Sims* but powered by true AI.

M. K.: Have you encountered any *Black Mirror* moments, where such entities were not only believable but acted somehow sentiently? When I quit *The Sims*, I did not feel like I killed or paused someone's life. When the main character in one of the episodes of *Black Mirror* tortured a digital copy of its owner's mind, it was a completely different feeling. Where are your characters on this scale?

Marek Rosa: Yes, in a way. During development, one of our characters behaved unexpectedly, and an employee said they had a hard time 'killing' it. In games like *Call of Duty*, when you shoot an NPC, it is straightforward – you do not think about their family, goals, or dreams. Here, it is different. People naturally attribute intent to inanimate objects or entities based on their behaviour, and this has been documented long before computers existed. Our characters evoke stronger reactions because they appear to have 'thoughts' and opinions.

M. K.: Another episode of *Black Mirror* presents Waldo, a virtual character who runs in elections. He is controlled by humans, but can you imagine having a character like this in reality? Maybe not running for presidency, as that would require major legal changes, but at least influencing its outcome – similar to the short story by Philip K. Dick, *The Mold of Yancy*, where society is guided by a non-existent, father-like entity through its media presence.

Marek Rosa: It is conceivable. Politics often involves lies, gossip, and manipulation. However, sometimes people see through it and gravitate toward integrity. The last Slovak president, for example, gained popularity without resorting to attacks or deceit. I do not want to live in a world where I must choose between candidates throwing dirt at each other. I want competent leaders, and they do not necessarily need to be human entities. Let's hope there will be more Yancys than Waldos in our future.

