"If Only We Could Communicate with Him". Technique, Communication and Media in Stanisław Lem's *Eden*

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Communication problems, manifested in various configurations and in different interpersonal and non-human relationships are, as needed, one of the main leitmotifs in Stanisław Lem's science-fiction prose. Interpreting the works of the writer from the perspective of media development, one could put forward the following thesis: tech-

nological development does not always mean more efficient, effective and better communication[1].

Some examples from Lem's rich literary output seem to be symptomatic of this. Humanity in *Solaris* (1961), represented by Kris Kelvin, the main character, has difficulty finding a common language with an unexplored and unknown civilisation. In *Terminus* (1961), a pilot named Pirx, faces a different problem when he tries to reconstruct the course of the spacecraft disaster and is not able to communicate with a robot. In *The Invincible* (1964) astronauts, who were sent on a rescue mission and look for a missing ship, the "Condor", on the planet Regis, come across a "cloud" of microscopic robots that they are not able to communicate with. *His Master's Voice* (1968) depicts the struggles of scientists trying to decipher an extraterrestrial message, and *Golem XIV* (1981) contains the "lectures" of a supercomputer, which are devoted to the broadly understood media. These and other examples of "communication problems" can be seen today as somewhat archaic. At least at first glance, in times of transnational communication networks, we should not have difficulties in making contact, exchanging information and

1 This issue has been addressed by, among others Katarzyna Kobos in her article Could we learn anything from *Martians*, *even if we could ask them* a question. The author not only focused on the interpersonal dimension of communication difficulties encountered by Lem's prose characters (e.g. in *Golem XIV* or *Solaris*), but primarily considered this problem from the point of view of the philosophy of language. One such communication difficulty is represented by the ocean surrounding the planet Solaris, where neither media messages sent by people, nor methods of communication known to them work. According to the author, there is no way to communicate with something that can neither encode nor decode messages: "In Solaris there is a conscious being devoid of the perceptual interface, who can reach in its consciousness straight to the nerve center of other living entities. As a result, it can only repeat and reconstruct and is not open to external experiences" [31].

finding agreement with other people on a global scale. Is this really the case? Do modern technologies make it easier for people to communicate? Do we understand more and know more about each other thanks to the media[2]?

Lem's *Eden* is a 1959 novel (initially serialised in a number of issues of a newspaper called *Trybuna Robotnicza* in 1958), where struggles with technology, science and communication are inextricably linked. This novel is part of the "more serious" narrative of the prose writer and is included in the *hard science fiction* subgenre, together with the previously mentioned *Solaris, The Invincible*, *His Master's Voice* and in *Tales of Pirx the Pilot* to some extent. *Eden* is Lem's third science-fiction story, after *The Astronauts* and *The Magellanic Cloud*[3]. By this time, Lem was no longer a novice writer and had a specific vision for his prose. Andrzej Stoff thought that in *Eden*, Lem laid the foundations for something like a "laboratory" to test the characteristics of humanity [18-19].

Difficulties in establishing contact with an alien civilisation were already a major theme in *The Magellanic Cloud*, but it was in *Eden* that they became distinctive. Perhaps it was due to the political situation in the world? Lack of stabilisation? Destabilisation between the thaw after October 1956

2 To some extent, such questions, as well as other issues, relate to Paweł Majewski's dissertation Between an Animal and a Machine: Stanisław Lem's Technological Utopia. The author interprets the essays *The Dialogues* and *Summa technologiae,* and comes to the following conclusion: Lem's project, which is primarily visible in these two volumes of essays, is a picture of a liberal utopia in which science, technology and knowledge will provide humanity with answers to every question.

3 As part of the novel genre, Lem debuted with *Hospital of the Transfiguration* (completed in 1948). It was the first part of the Time Not Lost trilogy.

in Poland and the rise munication problems – between people! – that come to the fore and seem worthy of attention, especially today in the age of digitisation of all areas of life. "Lem and technology" is a topic that has been widely interpreted from different perspectives. Today, however, we could add one more topic to this vast field of "Lemology", namely a reflection on the relationship between the author's prose and mass communication and the media[4].

Hard landing

The beginning of *Eden's* narrative signals that technology and the achievements of various research fields are an important element of the described world. Earthly technology products help astronauts travel in space: "Because of miscalculation, the craft dipped too low and hit the atmosphere with an ear-splitting scream. Lying flat in their bunks, the men could hear the dampers being crushed. The front screens showed flame and went black; the cushion of incandescent gas at the bow was too much for the outside cameras. The control room filled with the stench of hot rubber. Under the force of the deceleration, the men temporarily lost their vision, their hearing. This was the end... No one could think. No one had the strength, even, to inhale. Breathing was done for them by the oxypulsators, forcing air into them as into straining balloons" [*Eden* 5].

As can be seen, and this is not an isolated case, but a kind of rule that Lem liked to weave descriptions of objects,

4 "Lem and technology" was one of the main topics in the *Philosophical/Literary Review (Pol.* Przegląd Filozoficzno-Literacki*),* a scientific quarterly published by *the Institute of Philosophy at the University of Warsaw.* See [*Przegląd Filozoficzno-Literacki*, no. 1(22), 2009].

mechanisms and devices that testified to the advancement of human technical thought into the narrative. Shock absorbers, wires, mechanical parts, brakes and hydraulic fluids, which usually squeak, screech and leak under the pressure of physical forces are particularly interesting. Technology in Lem's works usually gives in to "nature" and does not withstand the laws of gravity. (As a side note, it is worth mentioning that people often deliberately put devices to the test; for example Pirx, who just kicks the pilot seat shock absorbers in order to check the technical condition of the ship ["Terminus" 67]). Looking at this today, this is something that seems obsolete in an entertaining way and something that does not fit the vision of the future, and simply, regardless of the level of sophistication, it is unreliable. That one should not rely indiscriminately on technology seems to be Lem's message in most of his science fiction novels (with an emphasis on "scientific"), and this is the case in *Eden.*

It turns out that clocks, calculators and gauges (our versions of these today are screens, multi-core processors and GPS) do not help the crew avoid a catastrophe. Thus, the crew of the spaceship deviates from the chosen course, pierces the atmosphere of planet Eden and hits into its surface with force for unclear reasons. The astronauts are literally trapped in a 100-metre long rocket tomb that has bored deep into clay soil. The crew consists of: Captain, Doctor, Engineer, Cyberneticist, Physicist and Chemist whose names are not assigned but only the functions or professions they perform (with one exception – the Engineer's name is Henry).

The first pages of the story describe the crew's attempt to dig themselves out of the ground. The nuclear reactor on the ship is not working, there is no electricity, and the machines, which Earthlings have in abundance to perform various tasks, including work and defence, cannot be used. This is because, firstly, they all compacted into one shapeless mass on collision, and secondly, there is no electricity to start them. Technology becomes a burden, an obstacle, and does not fulfil its function. It transpires that a space ship, equipped with calculators and automata is useless and unable to withstand a collision with "nature". Instead of protecting, it endangers people. In such a situation, salvation comes in the form of an invention, albeit an older, one could say "primitive" one, such as a cigarette lighter, thanks to which it is possible to illuminate the darkness of the interior of the ship: "We're alive," said the Chemist. In total darkness, he could not see a thing. He was hanging in his nylon bag fastened on four sides by cords. The ship had to be lying on its side: otherwise the berth would have been horizontal. There was a crackle, and the pale glimmer of the Doctor's old lighter" [*Eden* 7].

All these inventions mentioned above – shock absorbers, oxypulsators and screens – are today seen as anachronistic rather than impressive and, in fact, were no use in the crisis situation in which the astronauts found themselves. In order to see what is happening around him, the Doctor uses a completely ordinary object that has nothing to do with "modern" technological advances. The fact that it is this character that pulls out the lighter is no coincidence. Firstly, having a lighter seems very "human", and secondly, the Doctor is the most "enlightened" member of the crew, not so much in the sense

of knowledge, but rather in his humanistic, rational and sober attitude to reality. It is worth watching the recent film by Ridley Scott *The Martian* (2015), where the main character of this film, just like the characters from *Eden*, falls victim to ultra-modern, but basically defective technology and has to deal with an extreme situation as a human being.

The Doctor probably has the most to say in the rest of the book – about the planet, natural phenomena, the inhabitants of Eden and the like – if compared to, for example, the Chemist who gives the impression of being a colourless, supporting character, and one that is definitely less involved in the events on Eden. The Doctor can accurately and humorously summarise virtually any situation, even the most hopeless one that he and his colleagues face. When the crew are struggling to get out of the ship and are trying to open the airlock hatch, placed too high in the control room, and when the characters build a few-metre tall platform using books (!) and various equipment scattered here and there, the Doctor concludes: "I would never have believed that such makeshift measures could be taken – on stellar voyages" [*Eden* 11]. When he finally manages to move to the main hatch leading to the surface, which also resists quite a lot, he sarcastically states: "Arriving is easy – the hard thing is to disembark" [13].

Thus, from the beginning of the novel, Lem's narrative tends to question the achievements of modernity. Should people face the stars at all? Do they have the right to cross the bounds of the Earth? And what awaits those who try to break existing rules? Such issues are also often addressed

today, in relation to the media. After all, attention is consistently drawn to the fact that perhaps we are too hasty to judge the impact of free access to the Internet and mobile devices on education, science and social life [Spitzer].

Moreover, technologies, and indeed all the achievements of modernity ranging from robots to space ships, become obsolete at some point and thus what at that time seemed "revolutionary" in Lem's novels (calculators, automata, nuclear reactor, etc.) today brings to mind a museum of technology. Marek Oramus, an author of science-fiction prose, who interpreted *Eden* in a collection of journalistic texts entitled *Gods of Lem* (Pol. *Bogowie Lema*) emphasised this problem: "Of course, from today's point of view, the technology is archaic there (all these niobium-tantalum diodes, calculators, electron brains, nuclear reactors, etc.), but we should remember that the text is almost 50 years old and with time it becomes, like other ones from this genre, more of a record of contemporary ideas of the future than the future itself " [Oramus].

However, by transplanting the issue of aging technology into the problems of the present, one could say that what seems progressive and makes life easier for us today, may tomorrow have a completely different dimension, a different meaning and may even be forgotten in accordance with the dynamics of modernity[5]. The aging of inventions is a fairly common theme in Lem's prose. For example, in *Eden*, Pirx cannot communicate with Terminus because the machine is old, broken, useless, and eventually

5 Magda Goetz wrote about Lem's predictions and how his imagination influenced modern technology and implemented technologies. See [Goetz].

scrapped [“Terminus” 99-100]. Therefore, progress is not something one should rely on completely. Trust in technology without critical judgment can either lead to disaster, or worse, not being saved from disaster’s effects.

Faith shaken

When the crew finally manage to extricate themselves from the sealed ship, they see a normal planet that looks somewhat like Earth, thanks to, among other things, the atmosphere with air, a desert landscape and the alternating flat, and then hilly terrain here and there. Everything looks almost the same, although some differences can easily be noticed: “The sun was high overhead —small and distant, yet hotter than the Earth’s. But what struck them most was that the sun was not completely circular. They observed it through the cracks of their fingers and through the semitransparent red paper used for wrapping the individual antiradiation packs. “It’s flattened because of the velocity of its revolution around its axis, is that right?” the Chemist asked the Captain. “Yes. The flattening was more noticeable during the flight. You don’t remember?” <<But, you see, I wasn’t paying attention then…>>”[*Eden* 30].

From the beginning, and throughout their adventure the astronauts refer to knowledge, learned mathematical formulas and judgments based on scientific proof. Observing the phenomena taking place on Eden, they also draw upon their earthly experiences, which does not always lead to meaningful conclusions. Despite the relatively favourable circumstances, the characters consider two rational ways out of their difficult situation: firstly, they can begin to

carefully explore the planet; secondly, however, they should try to repair the rocket equipment, mainly the reactor and automata in order to dig the ship out of the ground, start the engines and return home. Except that it is easier for them to take up the first challenge because they conclude that the six of them would not able to dig the rocket out by themselves. They need automata for this task, and to run automata they need electricity, and to have electricity they need to start the reactor, which is operated by automata... Lem often showed that technology can be malicious.

During the first foray around the area, the characters encounter harmless but bizarre manifestations of Eden's "vegetation". These are: calyx-trees, which grow out of the ground and quickly hide under the surface; spider-plants, which do not reveal a specific purpose, but grow as if they were coppices; and also something like an animal-plant, whose main characteristic is its almost two-metre long hair. These "creatures" can bring to mind *Hothouse*, a novel by Brian W. Aldiss, published for the first time in English in 1962, in which the surface of the Earth is overgrown with dangerous vegetation that feeds on people who are a dying species [6].

This situation in the book, just like many others, could be interpreted through an eco-critical lens. In this sense, *Eden* would then be read as a story about the intersection of what is "natural" and "unnatural", "human" and "animal", "humanist" and "posthumanist". According to Przemysław Czapliński, co-editor of the publication entitled *Literature*

6 The first Polish edition of the novel was published by Iskry in 1983 in the "Fantasy-Adventure" series.

and its nature (Pol. *Literatura i jej natury*), it is not a matter of "natural" and "unnatural" that seems important, but rather a multitude of ways of defining nature [Czapliński 7-18]. Probably similarly for Lem, "nature", "culture" and "technology" have more than one name, and their definitions can be as different as the skills, competences and views of the characters. Sometimes, however, they also fail. The next discovery of *Eden's* characters exceeds their wildest expectations.

Extermination Factory

The crew come across a more disturbing thing after a short trip around the planet. It is a factory hall with an unusual purpose, or rather its absence. It quickly turns out that the factory, which is equipped with production equipment and conveyors, and is divided into parts, in which various components are made, in fact does not produce anything, or at least does not produce anything that would be usable. The crew do not understand how production can be done for production alone. How can you understand something that you cannot understand?

It is mainly the Engineer that is responsible for the technological analysis of this creation. However, as a specialist in the field of technology, he does not have optimistic conclusions. After examining one of the factory's "products", the character tries to describe his thoughts: "It's the work of a lunatic, or, rather"— he pointed in the direction of the factory —"lunatics. A civilization of lunatics, that's what this damned Eden is!" Then he added calmly: "The object we hauled here was manufactured by a whole series of processes —compression, segmentation, thermal treatment, pol-

ishing. It's made of polymers, inorganic crystals. What it's for, I have no idea. It's a part, not a whole. But even as a part, taken out of this crack-brained mill, it looks crazy to me."

The factory that produces "nothing" resembles a modern three-dimensional printer (it can also print any shape that does not have a purpose), it is not known, however, who controls it and why it manufactures these various parts. Another thing is that people are unable to understand the essence of the ghost factory and there are no workers, which is also worrying. Perhaps their knowledge is insufficient, and they use only earthly concepts to formulate conclusions. What is produced in the "factory"? What does it exist for? Who built it?

We know, of course, thanks to Agnieszka Gajewska's book etitled *Holocaust and the Stars. The past in the prose of Stanisław Lem* that the "factory" is one of the metaphors of extermination and genocide, a way to show the "incomprehensible" situation. The researcher put it this way: "*Eden* shows in a radical way the position of the gap/witness of the ongoing extermination of a large proportion of the planet's inhabitants" [177]. Thus, the reader of Lem's novel will quickly capture the sense of this scene – the "factory" shows terrifying perfection, and at the same time the incomprehensible brutality of Eden's technology (and the Holocaust). Wojciech Orliński argued that Lem's dramatic memories from the Lviv ghetto were hidden in *Eden* [181-183].

Further discoveries are equally frightening. After returning from the first trip, it turns out that someone (or something)

has visited the ship. It is interesting that the first trace of the presence of "Aliens" is mucus sticking to the Physicist's shoes (just like in the film *Alien* from 1979, as well as in other parts of the series, in which the first signal of an approaching deadly monster is just sticky semi-translucent mucus). The mysterious guest is a creature who, on first contact with humans accidentally dies after being electrocuted. After the autopsy, the Doctor cannot understand what this creature resembles, because its structure is completely unknown to earthly science. Similarly to the "factory" – it is something known, but it is impossible to explain what it is, how it works and why it exists [*Eden* 71]. The Engineer calls this creature a "doubler" because it consists of two separate parts, two independent organisms – of a baggy shell and a small body with limbs and head fused to it [80-81].

All this does not give hope to solving the riddle of *Eden*, though! It does not even promise a light at the end of tunnel of difficult, unanswered questions. Some of the characters' discoveries are quite typical of science fiction, for example they encounter large vehicles on their way, which resemble huge illuminated wheels with an unknown driver (The Engineer concludes sarcastically: "I have a Ph.D." [85]).

A city, which is quite original: hilly, furrowed and illuminated is another manifestation of life on Eden. It is not known whether it is a modern construct or rather a mysterious settlement of a now-extinct civilisation [89]. Somewhere around this metropolis, the characters make a discovery that is as surprising as it is macabre. It turns out that they are standing on the edge of a gigan-

tic grave: "The waxy heap along the edge of the ditch at first appeared to be a homogeneous mass. The men could barely breathe, the stench was so bad. Then they began to distinguish separate figures. Some creatures lay with their humps upward, others on their side; frail torsos with small upturned faces were wedged in between huge muscles, and massive trunks lay intermingled with tiny hands, knotty fingers, that dangled limply. The swollen bodies were covered with damp yellow patches" [91].

Is this supposed to be the most important discovery, the culmination of the exploration of a civilisation unknown to the crew? Are they witnessing the highest achievement of Eden's engineers' technology, whoever they are and whatever their intentions are[7]? Associations must be: these are mass graves, the effect of a planned extermination, on the outskirts of some terrifyingly vast death camp[8]. In the face of these events, the human crew are not fully capable of giving unambiguous judgments. The actions taken by the characters, and above all, discussions between them become signs of a shaken faith. On the one hand, they expect some contact with the representatives of the alien civilisation, but on the other, quite understandably, they begin to follow the *Si vis pacem, para*

7 The idea of the death camp as a paradoxical manifestation of the pursuit of modernity was udertaken, among others, by Giorgio Agamben in the *Homo sacer* series of texts [Jankowicz and Mościcki 192-199].

8 Jacek Leociak mentions the holocaust theme in Lem's work when he writes about burials, graves, sections and desecration of corpses and other issues related to the body after death in the fourth part of *Limit experiences*: *A study of twentieth-century forms of representation* entitled *Encounters with the corpse* [330]. This scene in *Eden* is also the subject of analysis in the above-mentioned book by Agnieszka Gajewska [178-179].

bellum maxim. How are they to communicate with representatives of a civilisation that murders its citizens?

Last but not least, the connective tissue running through all the threads in the novel, described above, is the fact that the characters do not have the opportunity to consult on or verify their discoveries. There is no communication with Earth so it is impossible to shout into the radio: "Houston, we have a problem!" The books on board are the only meaningful "medium" and source of knowledge, thanks to which somehow the collected data could be pieced together. Like in Lem's other novels, for example in *Solaris*, where Kelvin spends most of his time in the library, books are relayers of information and they have a similar function that the Internet has today[9]. However, in *Eden*, even books are not as important a source of information, knowledge and inspiration as in *Solaris*. It must be remembered that Eden is unexplored and there is no separate field of science about this planet, as there is in the case of Solaris. Another thing is that at the beginning, when the characters dig out the the ship, they throw all the extracted clay into the library. Therefore, they cut off access to the science written and preserved in books of the Earth, which is a helpful reference point for them. Subsequently, all the extracted clay disappears from the library

9 In *This is not the end of the book* Umberto Eco proves that the book is in line with other examples of humanity's most perfect inventions, such as the spoon or glasses, which cannot be replaced with anything else. What is meant by that is that it is impossible to imagine spoons or glasses different from those we know well. These items may have different shapes, can be made of different materials, or be intended for use in specific situations. They will always, however, be what they are, i.e. a spoon and glasses. In this sense, Lem's inventions are always what we know well. That is why, while looking for traces of alien civilisation on Eden, the characters find traces of their own experience and a reflection of science and technology on Earth [Eco and Carièrre 13-14].

thanks to the doubler, but the impression of the "flooding" of knowledge remains strong nonetheless. Did Lem make the lives of the characters harder on purpose? What would the Earth's astronauts of today do? Would they look for a broadband internet connection? Try to use a mobile phone? GPS? Whatever choice would probably end in failure, misunderstanding or some smaller or greater disaster. Maybe because it these are just "human" inventions, and so an extension of the technological thought of humans who are not ready to communicate with unknown civilisations.

Lack of understanding

The problem of *Eden's* characters is also that they try to understand everything by looking through an "earthly lens". The Doctor can be considered as the only character who looks soberly at the real threat to everyone: "Being human, we make associations and interpretations that are human, we apply human laws, arrange facts into patterns brought from Earth. I am absolutely certain that we all thought the same thing this morning: that we had come upon the grave of victims of violence, of murder. But we don't really know…" [*Eden* 105].

The doctor is probably right. It is difficult to measure Eden against human yardsticks, because it is impossible to understand its inhabitants by using only human knowledge and experience brought from Earth. Therefore, discussions between the six astronaut-scientists are usually fruitless and lead to a common conclusion: one must try to make contact with doublers. However, how to do so and what the effects of this communication will be – the characters do not know.

The final chapters of the novel introduce a very interesting theme in terms of communication and the media. The scientists try to talk to the doubler which appears on the ship (Is it the case that it is the "alien" that is looking for contact?). The inhabitant of Eden, however, does not speak the same language as the Earth-dwellers (it is not indicated in Lem's novel what language it precisely is). However, in order to somehow communicate with it, astronauts reach for the universal code of all fields of science. First they try to draw different things on the blackboard with coloured chalk, as suggested by Physicist who thrusts himself into action by saying: "If only we could communicate with him" [263]. Then they manage to translate human speech into the doubler's communication apparatus based on the transmission of electrical impulses. By connecting to a "calculator" (computer), thanks to mathematics and concepts from the science dictionary, the characters have a broken and unclear "conversation" with the "alien". The effect of the conversation itself is not the worst from the point of view of new information obtained from the doubler. It turns out that Eden has a kind of totalitarian rule, and the technologies produced by its inhabitants are used to biologically improve the race. Mass graves are part of the criminal justice system. Factories produce biological "spare parts". The conclusions to which the scientists arrive at after this bizarre conversation are interesting: "An abuse – so total, so thorough, as to arouse one's admiration – of information theory. It shows that it can be an instrument of torture far worse than anything physical. Isolating, repressing, compelling without compelling –they've made a ghastly science of it, their 'procrustics,' as the computer called it." [291].

Information is an instrument of power and those who have information can also control the inhabitants of Eden, their life and death. This is perhaps the most important idea and Lem's prophecy arising after the "conversation" with the doubler. In this dramatic situation, however, it is impossible to help the inhabitants of Eden from the point of view of earthly rights, because, as Jerzy Jarzębski claims: "[a]n attempt to intervene in the defence of some over-planetary morality brings, however, another hecatomb, which leads to the conclusion that any imposition of one civilization's standards created within another, is extremely risky" ["Lem i świat" [transl. Lem and the World] 305]. It is, therefore, a stalemate, because any help would impose on Eden's inhabitants earthly points of view, laws and ways of organising society, ergo freeing them from one totalitarianism can be a straight path to another.

And how would we communicate with such, let us say, inhabitants of Eden today? Would we launch an Internet connection? Would we prepare them Powerpoint slides with the most "earthly" images? Would we use interactive whiteboards instead of sheets of paper? Lem had a firm opinion on mass communication and new media; in a sense, he was "afraid" of the internet and what the future of its development might bring. He pointed out that while the network of connections between users seems revolutionary, the content transmitted thanks to it may leave much to be desired. Of course, some of Lem's fears seem unfounded today. For example, in the mid-90s (when the internet with only just beginning to gain popularity outside of science) in an essay entitled *Cave internetum*, he wrote: "Japanese, Thai or Slavic

people who speak Cyrillic, will not enter the Internet with their writing or speech as there are no devices that would translate it" [235]. Such a proclamation was correct at the time of writing, but with the benefit of hindsight, it was a completely misguided fear: Internet tools are increasingly better at translating different languages and enabling better communication for users from around the world. Lem's doubts also concerned the replacement of the printed book with a digital one. He wrote in 1996: "For example, I cannot imagine reading my favourite poet in such a way that I would place the computer monitor next to my bed, next to my pillow" ["Raju nie widać" [transl. Unseeable Paradise] 238]. It is not necessary to place a monitor on the bedside table today (Did Lem mean one of the cathode-ray tube computer monitors that had long since gone out of circulation?) – all that is needed is an e-book reader or tablet in one's hand to conveniently browse through books or magazines.

Would Google translator be enough to communicate with the inhabitants from Eden? Perhaps the truth is that today's advancement of communication technology could make it more difficult for us to make contact[10]. After talking with the Engineer, The Captain emphasises the media mismatch with the Eden's civilisation: "In the first place, these are not human beings. Remember, you spoke only with the computer, and therefore understand the doubler no better than it does" [*Eden* 293]. It is worth comparing *Eden* with the 2016 film *Arrival* 2016, in which a linguist studies the language

10 Lem warned about the destructive impact of technology on culture, which was emphasised by Andrzej Wasilewski: "When it comes to technology, it is important to us, because it is science and technology that have led to the cultural crisis we are currently facing" [177].

of aliens and is partially successful. Should we rely on new media, developments in IT and easy access to information?

Conclusion. What is next?

In the excerpt from Jerzy Jarzębski's *Smutek Edenu* [transl. The Sadness of Eden], quoted at the beginning of this paper, the interpretation of Lem's vision inclines towards stating that it is in some sense an anti-utopia of the world in which technology and science know the answers to all questions. Neither technology nor science provide those answers because there are no universal communication languages, as evidenced by the difficult adventures of the astronauts on an alien planet. Jarzębski sums up this problem: "In *Eden*, only scholars are able to talk and are armed in a universal language shaped by the objective characteristics of the world itself, not this or another civilisation" ["Smutek Edenu" [transl. The Sadness of Eden] 292]. So what is the modern world like in the face of the "communication problems" presented by Lem?

The present, despite Lem's visions, is probably constructed differently, and above all, differently from twentieth century social reality, which was a breeding ground for Lem's imagination. For today, science itself must strive for an audience, it must look for communication channels that allow it to reach wider masses of recipients. Such a "channel" for science is, for example, TED (*Technology, Entertainment, and Design*), which is a kind of international science-promoting project that has existed for at least three decades (the first audio-video lecture of this kind took place in 1984), but only in recent years has it gained

widespread popularity due to universal access to the Internet. Everyone can, at least theoretically, present a TED talk and does not necessarily have to use the language of science for this. Quite the opposite – science adopts a language characteristic of popular culture and understandable even to recipients who are do not have much knowledge on a given subject.

This does not mean, however, that such a "language" of Internet communication would be an easier way to communicate with "aliens". After all, it is only human science and the human internet, and the purpose of knowledge is always humans themselves and the universe that surrounds them. That is why TED and the popularisation of science thanks to the increasingly accessible media, may also be a kind of utopia. The "mediatisation" of science and education and the popularisation of research and culture as a whole does not necessarily lead to a better life or a better functioning of societies. After all, the media is not always easily accessible to everyone. And so, at least in this sense, they should not be treated as the most important manifestation of the development of civilisation, just like science in the worlds created by Lem. The fact that we have various information relayers at hand undoubtedly makes communication easier, but in no way guarantees understanding, gaining knowledge and reaching agreement[11]. So the question about the fu-

11 This issue, as well as other problems related to new media, are presented in the book entitled *Together* alone by Sherry Turkle, in which the author considers the ways in which technology, and in particular modern mass communication channels, has changed people-to-people contacts.

ture turns into a problem of the present, just like in Lem's works, where visions were a reflection of real political events and social problems.

The characters in *Eden* finally make a decision to leave the planet. Their ability to communicate through the universal language of science turns out to be too hermetic; the ability not to make contact per se, but rather to exchange information and establish deeper cooperation with the inhabitants of Eden. With advanced technologies such as space crafts, automata and energy-throwers, they are only able to accidentally destroy or kill one of the doublers at best. This is largely a sign of the failure of technology, communication and human civilisation, which leads to the abandonment of the alien planet. Do the characters set out on a return journey to supplement knowledge and maybe someday, consciously, try to make contact with the inhabitants of Eden? This is not known, although it is certain that thanks to this expedition, the astronauts learned much more about themselves than they could have initially thought. It is also one of Lem's warnings for the future: everything that is inhuman will, in fact, always be alien to us.

Translated by Aleksandra Sokalska-Bennett

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