

Humanism and Artificial Intelligence – Karel Capek's view

Karel Capek (1890-1938) was born into a well-educated, liberal, politically active family in the Czech region of the Austrian Empire. In 1915 he received a doctorate in philosophy from Charles University in Prague, and became a political activist and journalist, closely allied with Charles University's most famous professor, Tomas Masaryk, a



committed humanist. Masaryk and Capek were ferocious opponents of any sort of tyranny. While Capek was comfortable using religious language as metaphor, he did not believe in any traditional concept of God. He did believe in humanity.

In 1918, when Capek was 28, his hero Masaryk became president of the newly created Czechoslovakia. Capek continued with his journalism but also wrote plays and novels. His 1921 play, Rossum's Universal Robots, often known as R.U.R., was a huge international success. The play invented the word "robot" which became a common noun in many languages.

The play R.U.R. has an unusual structure. Much of it consists of philosophical discussion among a small group of humans which takes place during and after a large-scale revolt of millions of robots which ends with the destruction of all humans. The combination of

thoughtful argument and apocalyptic destruction sold a lot of tickets in its time.

On Saturday we will read excerpts from the play and discuss Capek's arguments, which continue to be relevant, especially in view of the high level of current interest in artificial intelligence.

Most of the play's human characters are male managers and engineers at the Rossum company, the manufacturer of all the world's robots. The exception is Helena, a female human rights activist who visits the factory and observes the action from the audience's point of view.

Our first excerpt is from the beginning of the play in which the managers and engineers explain to Helena the logic of building robots:

HELENA: Why won't you make souls for them?

DR. GALL: That's not within our power.

FABRY: Nor in our interest.

BUSMAN: That would raise the cost of production. Dear Lord, lovely lady, the beauty of our product is that it's so cheap! One-hundred-twenty dollars a head, complete with clothing, and fifteen years ago they cost ten-thousand. Five years ago we were still buying clothes for them. Today we have our own textile mill where we produce fabric five times more cheaply than other factories. Tell me, Miss Glory, what do you pay for a yard of cloth?

HELENA: I don't know — actually — I've forgotten.

BUSMAN: Good Lord, and you want to found a League of Humanity! Ours costs only a third as much, Miss Glory; today all prices are only

a third of what they were, and they're still falling, lower, lower, lower, lower — just like that. Well?

HELENA: I don't understand.

BUSMAN: Lord, Miss Glory. What this means is that we've cut the cost of labor. Why even with fodder a Robot costs only three-quarters of a cent an hour. It's really funny, Miss, how factories all over are going belly-up unless they've bought Robots to cut production costs.

HELENA: Yes, and human workers are getting sacked.

BUSMAN: Haha, that goes without saying. But in the meantime we've dropped five-hundred thousand tropical Robots on the Argentine pampas to tend the wheat. Tell me, please, what do you pay for a loaf of bread?

HELENA: I have no idea.

BUSMAN: Well, you see, right now bread costs two cents a loaf in your good old Europe; that's the daily bread we can provide, do you understand? Two cents for a loaf of bread and your League of Humanity knows nothing about it! Haha, Miss Glory, what you don't know is that even that is too expensive per slice. For the sake of civilization, etcetera. What would you bet that in five years —

HELENA: What?

BUSMAN: That in five years everything will cost a tenth of what it costs even now. Folks, in five years we'll be drowning in wheat and everything else you could possibly want.

ALQUIST: Yes, and all the laborers of the world will be out of work.

DOMIN (stands up): Yes they will, Alquist. They will, Miss Glory. But within the next ten years Rossum's Universal Robots will produce so much wheat, so much cloth, so much everything that things will no longer have any value. Everyone will be able to take as much as he needs. There'll be no more poverty. Yes, people will be out of work, but by then there'll be no work left to be done. Everything will be done by living machines. People will do only what they enjoy. They will live only to perfect themselves.

In the next act, the Helena observes that because of the success of the robot program, humans seem to be losing interest in life. They don't seem to want children. Helena discusses this with Alquist, the chief engineer, who doesn't share the other managers' enthusiasm for the robots (or profits) and expresses Capek's personal opinions.

HELENA: And if you were to witness the destruction of the human race —

ALQUIST: I am witnessing it.

HELENA: — so you'll climb onto your scaffold and lay bricks, or what?

ALQUIST: So I'll lay bricks, pray, and wait for a miracle. What else can I do, Mrs. Helena?

HELENA: For the salvation of mankind?

ALQUIST: For the peace of my soul.

HELENA: Alquist, that's wonderfully virtuous, but —

ALQUIST: But what?

HELENA: — for the rest of us — and for the world — it seems somehow fruitless — sterile.

ALQUIST: Sterility, Mrs. Helena, has become the latest achievement of the human race.

HELENA: Oh, Alquist — Tell me why — why —

ALQUIST: Well?

HELENA (softly) : Why have women stopped having babies?

ALQUIST: Because it's not necessary. Because we're in paradise, understand?

HELENA: I don't understand.

ALQUIST: Because human labor has become unnecessary, because suffering has become unnecessary, because man needs nothing, nothing, nothing but to enjoy — Oh, cursed paradise, this. (He jumps up.) Helena, there is nothing more terrible than giving people paradise on earth! Why have women stopped giving birth? Because the whole world has become Domin's Sodom!

HELENA (stands up): Alquist!

ALQUIST: It has! It has! The whole world, all the lands, all mankind, everything's become one big beastly orgy! People don't even stretch out their hands for food anymore; it's stuffed right in their mouths for them so they don't even have to get up — Haha, yes indeed, Domin's Robots see to everything! And we people, we, the crown of creation do not grow old with labor, we do not grow old with the cares of rearing children, we do not grow old from poverty! Hurry, hurry, step right up and indulge your carnal passions! And you expect women to

have children by such men? Helena, to men who are superfluous women will not bear children!

HELENA: Then humanity will die out?

ALQUIST: It will. It must. It'll fall away like a sterile flower,

In our next excerpt, the leaders of the Rossum company have figured out that the robots are rebellious and that this is a real threat. They come up with a solution. They will excite ethnic prejudices among the robots. Capek's clear implication is that nationalism is a trick that ruling elites use to keep working people down.

DOMIN: Because we want to step up production.

HELENA: Now — now even after this revolt?

DOMIN: Yes, especially after this revolt. We're going to begin producing a new kind of Robot immediately.

HELENA: A new kind?

DOMIN: There'll no longer be just one factory. There won't be Universal Robots any longer. We'll open a factory in every country, in every state, and can you guess what these new factories will produce?

HELENA: No.

DOMIN: National Robots.

HELENA: What does that mean?

DOMIN: It means that each factory will be making Robots of a different color, a different nationality, a different tongue; that they'll all be different — as different from one another as fingerprints; that

they'll no longer be able to conspire with one another; and that we, we people will help to foster their prejudices and cultivate their mutual lack of understanding, you see? So that any given Robot, to the day of its death, right to the grave, will forever hate a Robot bearing the trademark of another factory.

HALLEMEIER: Thunder, we'll make Black Robots and Swedish Robots and Italian Robots and Chinese Robots, and then let someone try to drive the notion of brotherhood into the noggin of their organization.

In the last scene of the play, all of the humans except Alquist have been killed by robots. The robots have kept Alquist alive because they hope he will be able to help them manufacture more robots. Without the ability to make more robots, the robots themselves will wear out in a few years. But key information about robot manufacturing has been lost. Alquist explains that the only small chance to learn how to make new robots would require killing and dissecting the most sophisticated robots in existence. There are two of these robots, Primus and Helena. (Helena the robot is named after Helena the human who is by this point dead, along with all other humans other than Alquist.) The conclusion expresses a belief in humanity as love, an idea which transcends humans as a biological species.

ALQUIST: When was she [Helena the robot] made?

PRIMUS: Two years ago.

ALQUIST: By Doctor Gall? [who made particularly sophisticated robots]

PRIMUS: As was I.

ALQUIST: Well then dear Primus, I — I must perform some experiments on Gall's Robots. Everything from here on out depends on that, understand?

PRIMUS: Yes.

ALQUIST: Good. Take the girl into the dissecting room. I'm going to dissect her.

PRIMUS: Helena?

ALQUIST: Of course. Go get everything ready. — Well, what are you waiting for? Do I have to call someone else to take her in?

PRIMUS (grabs a heavy mallet): If you move I'll smash your head in!

ALQUIST: Smash away! Smash! What will the Robots do then?

PRIMUS (falls on his knees): Sir, take me instead! I was made exactly like her, from the same batch, on the same day! Take my life, sir! (He opens his jacket.) Cut here, here!

ALQUIST: Go, I want to dissect Helena. Make haste.

PRIMUS: Take me instead of her. Cut into this breast — I won't scream, not even sigh! Take my life a hundred times —

ALQUIST: Steady, boy. Take it easy. Can it be that you don't want to live?

PRIMUS: Without her, no. Without her I don't, sir. You mustn't kill Helena! What difference would it make if you took my life instead?

ALQUIST (stroking his head affectionately): Hm, I don't know — Listen, my friend, think this over. It's difficult to die. And it is, you see, it's better to live.

PRIMUS (rising): Don't be afraid, sir, cut. I am stronger than she is.

ALQUIST (rings): Ah, Primus, how long ago it was that I was a young man! Don't be afraid, nothing will happen to Helena.

PRIMUS (unbuttoning his jacket): I'm ready, sir.

ALQUIST: Wait. (HELENA comes in.)

ALQUIST: Come here, girl, let me look at you! So you are Helena? (He strokes her hair.) Don't be frightened, don't pull away. Do you remember Mrs. Domin? Oh, Helena, what hair she had! No. No, you don't want to look at me. Well, girl, is the dissecting room cleaned up?

HELENA: Yes, sir.

ALQUIST: Good. You can help me, okay? I'm going to dissect Primus.

HELENA (cries out): Primus?!

ALQUIST: Well yes, of course — it must be, you see? I actually wanted — yes, I wanted to dissect you, but Primus offered himself in your place.

HELENA (covering her face): Primus?

ALQUIST: But of course, what of it? Oh, child, you can cry? Tell me, what does some Primus matter?

PRIMUS: Don't torment her, sir!

ALQUIST: Quiet, Primus, quiet! — Why these tears? Well God in heaven, so there won't be a Primus, so what? You'll forget about him in a week. Really, be happy that you're alive.

HELENA (softly): I'll go.

ALQUIST: Where?

HELENA: To be dissected.

ALQUIST: You? You are beautiful, Helena. It would be a shame.

HELENA: I'll go. (PRIMUS blocks her way.) Let me go, Primus! Let me in there!

PRIMUS: You won't go, Helena! Please go away. You shouldn't be here!

HELENA: I'll jump out the window, Primus! If you go in there I'll jump out the window!

PRIMUS (holding her back): I won't allow it. (To ALQUIST.) You won't kill either of us, old man.

ALQUIST: Why?

PRIMUS: We — we — belong to each other.

ALQUIST: Say no more. (He opens the center door.) Quiet. Go.

PRIMUS: Where?

ALQUIST (in a whisper): Wherever you wish. Helena, take him. (He pushes them out the door.) Go, Adam. Go, Eve — be a wife to him. Be a husband to her, Primus. (He closes the door behind them.)

ALQUIST (alone): O blessed day! (He goes to the desk on tiptoe and spills the test tubes on the floor.) O hallowed sixth day! (He sits down at the desk and throws the books on the floor, then opens a bible, leafs through it and reads:) "So God created man in his own image, in the image of God created he him; male and female created he them. And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it: and

have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.” (He stands up.) “And God saw every thing that he had made, and, behold, it was very good. And the evening and the morning were the sixth day.” (He goes to the middle of the room.) The sixth day! The day of grace. (He falls on his knees.) Now, Lord, let Thy servant — Thy most superfluous servant Alquist — depart. Rossum, Fabry, Gall, great inventors, what did you ever invent that was great when compared to that girl, to that boy, to this first couple who have discovered love, tears, beloved laughter, the love of husband and wife? O nature, nature, life will not perish! Friends, Helena, life will not perish! It will begin anew with love; it will start out naked and tiny; it will take root in the wilderness, and to it all that we did and built will mean nothing — our towns and factories, our art, our ideas will all mean nothing, and yet life will not perish! Only we have perished. Our houses and machines will be in ruins, our systems will collapse, and the names of our great will fall away like dry leaves. Only you, love, will blossom on this rubbish heap and commit the seed of life to the winds. Now let Thy servant depart in peace, O Lord, for my eyes have beheld — beheld Thy deliverance through love, and life shall not perish! (He rises.) It shall not perish! (He stretches out his hands.) Not perish!

CURTAIN