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Prologue: Rossum's Universal Robots
by Karel Čapek, presented by N.W. for Dramastop performance

N. WIENER MC 22

Prologue

The play that is to be presented to us is RUR or Rossum's Universal Robots by Karel Capek. It was written in the early 1920's, after the first world war, but before the tremendous burst of engineering and technical developments which ~~has~~ ^{may} preceded and followed the second World War. It was written in Czechoslovakia, one of the most highly industrialized of the smaller countries in Europe; and one which was thoroughly familiar with modern techniques and yet sufficiently on the side lines to be able to view these techniques with a certain objectivity. The theme, namely, that of a mankind threatened by its own machines, ^{then strange} was ~~new~~ to drama, although it was not new to literature. The possibilities of the machine had been suspected and feared by Samael Butler ^{in his New Zealand sheep-run} as long ago as the last quarter of the 19th century. ^{Capek's RUR} The play is a melodrama, but it is intelligent melodrama; that is, while the action involves intense emotions caused by events foreign to the experience of the average playgoer who saw it at the the time of its presentation, it represents intellectual speculation on a highly significant level.

When the play was written, the automatic machine was still in its infancy, or perhaps it is even better to say was still in ^{its gestation} ~~the womb~~ of time. Since then we have had not merely a succession of automatic machines, but a philosophy of automatic machinery itself. The antiaircraft gun is either controlled automatically or in many cases it cannot be controlled at all. The eye which opens the gates of Tech ^{for the} to a passerby is but the merest toy in comparison with the electric eyes ^{which}

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 inspect ^{on} a whole industry. The electric computing machines on our desks are less than half-way from the swan^{an} of the Chinese to the modern electronic computing machines. The techniques of automatic warfare have operated with means far too perilous to be directly in the hands of a living individual and operate large^y automatically. The new directed weapons seek their goal in quite as real a sense as does a homing pi^lgeon.

Not only have we automic machines, but we **have** a whole branch of engineering devoted to the study of ^{the construction of} more automatic machines. Their philosophy has become associated with that of living beings and the ideas of their constructors have found a place in the study of the nervous system. As time goes, it is but a short day before the great assembly lines of our factories will be operated automatically. Machines demand to be understood or they will take the bread from the mouths of our workers. Not only that, but they de^mand that we understand man as man, or we shall become their slaves and not they ours. Now I would like to show you one ~~fn~~ of these machines. "Here, Palomilla!"

Now notice that there is no particular facial resemblance of this machine to a living organism. Its resemblance is in its sou^l, and what it does and how it behaves. Sooner

PROLOGUE FOR R.U.R.

The play that is to be presented to us is R.U.R., or Rossum's Universal Robots, by Karel Capek. It was written in the early 1920's after the First World War, but before the tremendous burst of engineering and technical developments which has preceded and followed the Second World War. It was written in Czechoslovakia, one of the most highly industrialized of the smaller countries of Europe; and one which was thoroughly familiar with modern techniques and yet sufficiently on the side lines to be able to view these techniques with a certain objectivity. The theme--namely, that of a mankind threatened by its own machines, was then strange to drama, although it was not new to literature. The possibilities of the machine had been suspected and feared by Samuel Butler in his New Zealand Sheep-Run as long ago as the last quarter of the 19th century.

Capek's R.U.R. is a melodrama, but it is intelligent melodrama: that is, while the action involves intense emotions caused by events foreign to the experience of the average playgoer who saw it at the time of its presentation, it represents intellectual speculation on a highly significant level.

When the play was written, the automatic machine was still in its infancy, or perhaps it is even better to say was still in its gestation. Since then, we have had not merely a succession of automatic machines, but a philosophy of automatic machinery itself. The antiaircraft gun is either controlled automatically, or in many cases it cannot be controlled at all. The eye which opens the gates of Technology for the passerby is but the merest toy in comparison with the electric eyes which inspect a whole industry. The electric computing machines on our desks are less than half-way from the swanben of the Chinese to the modern electronic computing machines. The techniques of automatic warfare have operated with means far too perilous to be directly in the hands of living individual and operate largely automatically. The now directed weapons seek their goal in quite as real a sense as does a homing pigeon.

Not only have we automatic machines, but we have a whole branch of engineering devoted to the study of the construction of more automatic machines. Their philosophy has become associated with that of living beings, and the ideas of their constructors have found a place in the study of the nervous system. As time goes, it is but a short day before the great assembly lines of our factories will be operated automatically. Machines demand to be understood, or they will take the bread from the mouths of our workers. Not only that, but they demand that we understand man as man, or we shall become their slaves and not they ours. Now I would like to show you one of these machines.

"Here, Palomilla!" (Demonstration of Robot Mechanism)

Now notice that there is no particular facial resemblance of this machine to a living organism. Its resemblance is in its soul, and what it does and how it behaves.

Similarly, the automata of industry do not portray a deceptive resemblance to human beings in their appearance. They do not wear masks, and work by wheels and shafts, rather than by arms and legs. They do not have a standard pattern, and when the factories begin to export them by thousands, the orders will not read simply, "Please send me 1000 robots," but rather, "We should like to consult with your installation engineer concerning the desirability of purchasing two dozen mark 18 assembly line robots for the control of our new airplane factory. Can you furnish the services of a taping expert on your own staff, or at any rate recommend a reliable man whom we can employ?" In other words the physical picture of robots as given in the play is conventional and unrealistic.

Yet in that manner in which its proper reality lies--the reality of ideas and emotions--Capek's play has stood up very well with the passing of time. If we wish to indulge in a little fancy, there is no city more fit to be the birthplace of the demon of the machine--than Prague--Prague, the city of the Emperor Rudolph, and his crew of magicians; Prague--whose legend is the legend of the Golem, which the great rabbi made of clay, and into which the sacred and unspeakable name of Jehovah on his breath, he blew life and horror.

It was the epigram of Plato that either kings must become philosophers or the philosophers must become kings. Similarly, I say that either the engineers must become poets or the poets must become engineers. This is in essence exactly what Plato said for it means that humanity as a whole can be ruled by nothing less than men who span the whole of humanity. For the poet to become an engineer does not mean merely that he be a poet of aluminum and plastics and streamlining. For these are the accidents of engineering and not its essence. Its essence is the use of human ingenuity for the understanding and control of nature. It differs from the magic of the Golem in nothing but that it works by formulas rather than by incantations, and that it does, in fact, work.

Nevertheless, it shares with magic every moral problem; and if it be used for vain ostentation or to satisfy the lust for power, it is black magic--and can only lead to damnation. Like magic, it leads to our salvation only when it redounds to the greater Glory of God; and that is, to some purpose which we recognize as righteous, and which transcends all petty private ambitions.

Now, on with the play!

Similarly, the automata of industry does not portray any deceptive resemblance to human beings in their appearance. They do not wear masks, and work by wheels and shafts, rather than ^{by} arms and legs. They do not have a standard pattern, and when the factories begin to export them by thousands, the orders will not read simply, "Please send me 1000 robots," but rather, "We should like to consult with your installation engineer concerning the desirability of purchasing two dozen Mark 18 Assembly line robots for the control of our new airplane factory. Can you furnish the services of a taping expert on your own staff, or at any rate recommend a reliable man whom we can employ?" In other words, the physical picture of robots as given in the play is conventional and unrealistic.

Yet in that matter in which its proper reality lies--the reality of ideas and emotions--Capek's play has stood up very well with the passing of time. If we wish to indulge in a little fancy, there is no city more fit to be the birthplace of the demon of the machines than Prague--Prague, the city of the Emperor Rudolph and his crew of magicians; Prague--whose legend is the legend of the Golem, which the Great Rabbi made of clay, and into which ~~the~~ with the sacred and unspeakable Name of Jehovah on His breath, he blew life and horror. For let us remember that the sin of necromancy is not the use of supernatural powers, but the use of great powers, natural or supernatural for the aggrandizement of Man, and not for the Glory of God. On with the play!

It was the epigram of Plato that either the kings must become philosophers or the philosophers must become kings. Similarly, I say that either the engineers must become poets or the poets must become engineers. This is in essence exactly what Plato said for it means that humanity as a whole can be ruled by nothing less than men who span the whole of humanity. For the poet to become an engineer does not mean merely that he is to be a poet of aluminum and plastics and streamlining. For these are the accidents of engineering and not its essence. Its essence is the use of human ingenuity for the understanding and control of nature. It differs from magic ^{we} in nothing but ^{of the Etern} that it works by formulas rather than by incantations, and that it does, in fact, work.

Nevertheless, it shares with magic every moral ^{problem;} issue and if it be used for vain ostentation or to satisfy the lust for power, it is black magic, and can only lead to damnation. Like magic, it ^{leads to} is our salvation only when it ^{redounds} accrues to the greater Glory of God; that is, to some purpose which we recognize as righteous, and which transcends all petty private ambitions. ~~For the poet is nothing if he is not a poet.~~