

Here's To You Mrs. Robinson An Original Radioplay Serialized
- 6 Episodes

By

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Start of Episode 1.

Sound F/X Keystrokes on computer. Traffic sounds. Music in background.

JIM

Voice Over (Sounds exhausted and resigned) - Well here I am in this dump on north Beck Street in Salt Lake. It's just before Christmas 2007. I'm finally out on parole, having been convicted of automobile homicide. The whole thing was an outrageous setup. The guy was already dead. But my lawyer said he would not pursue it for fear of his own safety and that of his family. I am ruined. My family has left me. I am unemployable. Still on parole. I now spend my days coding employers' reports of injury - my new career, and entering that stuff on an SQL database. SQL - can you believe it?! To think of it, I was once considered the next Alan Turing. Now I'm just an ex-con doing this crap in this old motel room. I think my ruin has everything to do with my great project. It all started 26 years ago....

fade out and in.

INT NIGHT MARRIOTT LIBRARY UNIVERSITY OF UTAH THIRD ANNUAL TANNER LECTURES APRIL 14, 1981.

Sound F/X - Meeting noise, testing of microphone, throats clearing. Microphone noise.

MASTER OF CEREMONIES

It is my pleasure and privilege to conduct this the third annual Tanner Lecture at the University of Utah. Two years ago we heard from an outstanding Cambridge scholar Lord Ashby. It is now our privilege to return to Cambridge in order to hear another great scholar.

a beat.

MASTER OF CEREMONIES

Joan Robinson was educated at Girton College, University of Cambridge, where she was a Gilchrist scholar. (fade out - fade in) Professor Robinson has attempted to form a unified system of political economy directly applicable to the analysis of policy problems in the modern world, and she actively participated in the formation and propagation of the Keynesian revolution. She is now the foremost living Keynesian economist. Please welcome now Professor Robinson.

Applause.

Sound F/X - Joan has a mature woman's voice, but still strong. She is resolute.

JOAN

In view of the threat that nuclear technology poses to the ecosphere, we must acknowledge that Homo sapiens has reached an evolutionary turning point. Thousands of tons of radioactive materials, released by nuclear explosions and reactor spills, are now dispersing through the environment. You in Utah are famously known as down winders are you not? You know whereof I speak. Nonbiodegradable, and some potent virtually forever, these toxic materials will continue to accumulate, and eventually their effects on the biosphere and on human beings will be grave: many people will begin to develop and die of cancer; or their reproductive genes will mutate, resulting in an increased incidence of congenitally deformed and diseased offspring - not just in the next generation, but for the rest of time. Even absent a nuclear war, nuclear technology is poisoning our environment. And you in Utah will face an epidemic of cancer in the years ahead, I am very sorry to say.

Sounds F/X Joan clears her throat. Takes a drink of water.

JOAN

Fanciful scientists have discussed the possibility of colonizing the solar system, but meanwhile we have only one world and we have created a situation which threatens to make it uninhabitable. Do you realize we may be all alone in the universe?

Sounds F/X - Sounds of concern from the crowd, gasping.

SOUNDS F/X: CHAIRS CLANKING, PAPERS SHUFFLING, SOME BACKGROUND COUGHING.

fade out, fade in.

JOAN

The damage caused by nuclear poison is not just to some unlucky individuals but to the pool of genes to be passed on to future generations. The peril is not just to us, who are alive today, but to the human race itself.

fade out, fade in.

JOAN

The hazards of nuclear technology are thus added to already serious environmental exposures, such as incineration of toxic materials. Such substances are, I believe, capable of invading the cell, like nuclear radiation. The genetic futures of the next generations are dire and problematic from both toxic and radioactive sources.

Sound F/X - Gradual fade out.

INT NIGHT BACK OF LECTURE HALL

Sound F/X - General background meeting noise.

Joan Robinson and Jim Maybrooke meet in back of lecture hall.

JOAN
Doctor Maybrooke I presume
(laughing).

JIM
The same. Just call me Jim.

Jim has a very young man's voice.

JOAN
Fine, just call me Joan. You look
even younger than in your
photographs. Are you sure it's
alright with your parents for you
to be out so late?

JIM
Yes, fine. I am all of 23 years
old.

JOAN
And with a PhD. In computer
science. I'm impressed.

JIM
So aside from providing an
interesting evening, why did you
invite me?

JOAN
I came here to Utah in part to see
you. Since tomorrow is a free day,
could we talk tomorrow?

JIM
Fine.

JOAN
Are you going to stay this evening
for the Q and A?

JIM
Absolutely!

INT NIGHT MARRIOTT LIBRARY UNIVERSITY OF UTAH THIRD ANNUAL
TANNER LECTURES APRIL 14, 1981 QUESTION AND ANSWER SESSION
FOLLOWING MAIN ADDRESS

Sounds F/X - General background meeting noise.

MASTER OF CEREMONIES

Professor Robinson has graciously agreed to remain this evening to answer some of your questions. The large number of people here is evidence of our interest in your remarks and in you Professor Robinson. Is your chair comfortable? And is the water sufficient or would you like something else to drink?

JOAN

Well yes, I'd like something else to drink, but not until I am off duty.

Laughter.

MASTER OF CEREMONIES

Now as you recall I asked all of you who wanted to ask questions to submit them in detail and in writing, so here goes.

a beat.

MASTER OF CEREMONIES

Question # 1. Why does the insane arms race continue? Or, what is the dynamic which feeds the arms race?

JOAN

First, the contest between the Soviet Union and the United States is a kind of religious conflict. Based on ideology both believe they are right exclusively. But there is another aspect, an economic one which is crucial. Armaments have become crucial to both sides as economic stimulus. Of course you know that Keynesian economics requires public investment to substitute for private investment when the latter lags. But Maynard, J.M. Keynes, was thinking of public works, investments which meet actual human needs. But in the west and in the east making weapons is seen as a way to keep people working. This is

JOAN
 a perversion of Keynes which he
 perceived well before his death.

MASTER OF CEREMONIES
 Question #2. What about the
 prospects for women in the sciences
 in general?

JOAN
 Women have had to struggle in all
 of the scientific fields, and that
 continues. I had to fight, and
 still do, to be taken seriously,
 though my work now speaks for
 itself. By a show of hands how
 many have read The Double Helix by
 Watson?

SOUNDS F/X: AUDIENCE MOVEMENT.

JOAN
 It looks like about half of you. I
 hope you checked your books out of
 the library. I don't want to make
 Watson rich. (Laughter) Watson
 was forced by his publisher to
 include a chapter on Rosalind
 Franklin, that brilliant physical
 scientist who did virtually all of
 the X-Ray diffraction work leading
 to the discernment of DNA's
 structure. She was treated
 horribly by that research team. I
 met Rosalind when she was
 terminally ill. Adequate
 protections were not afforded her
 in the Cavendish Lab. Her plight
 shows just how difficult it can be
 for women in the sciences. She did
 not live long enough to be awarded
 a Nobel Prize like Watson and the
 boys. Even had she lived I doubt
 she would have shared it. But if
 you have the skills and
 inclination, you must do it!

MASTER OF CEREMONIES
 Question #3. What's the matter
 with economics? It seems
 increasingly irrelevant to
 me. Here at the U the economics
 classes are among the most poorly
 taught. So, what's with economics?

JOAN

Economics is not easy to teach, so you might give your department some leeway. But to answer your question, following World War II the physical sciences came to dominate most campuses, and they received funding both from government and private sources. The physical sciences are mathematical. Economists sought to appear the same. If you read an economics journal today you might think you are reading the journal of high energy physics, or some such. But 90% of the articles in economics journals or econometric ones are useless. The mathematics usually adds nothing. Economics has desired to become something besides a social science, and it has become increasingly useless. I have no objection to mathematics when needed, and I have sought help from that quarter when necessary. But that is not economics proper. Let me say though, that economics is as abstract as mathematics and as rigorous. It is a discipline apart. To truly understand it you have to do it.

SOUNDS F/X: AUDIENCE MOVEMENT.

MASTER OF CEREMONIES

Question #4. What about Keynes? You knew him personally. What is his contribution?

JOAN

Maynard was a dear friend and mentor. I miss him terribly. He has been dead for a quarter century. He is the greatest economist of his age. His work The General Theory has guided the western democracies to this day. The General Theory is so named because it seeks a general theory of the economy, not the infrequent situation when the economy comes

JOAN

into equilibrium at full employment. He took tremendous risks in publishing the General Theory. He risked his reputation in refuting much of the economics of Alfred Marshall. He went up against the Marshallian Guild at Cambridge, and for that he took much ridicule. But he won in the end. However the stress of it all cost him his life in my opinion. He died in 1946 with heart problems.

MASTER OF CEREMONIES

Question #5. How did you work with Keynes? How did your association with him come about?

JOAN

I was interested in economics before I married Austin Robinson - that's why I'm Mrs. Robinson. I was a faculty member's wife. As Maynard was developing his new general theory he convened an informal study group to deal with it - the now famous Cambridge Circus. This was in 1931. Austin was included and I came along. I soon was making contributions to the discussions and say this for Maynard, he readily saw I had useful insights. He came to rely on me increasingly. As time went on it fell to me to explain the Keynesian revolution to the rest of economics and to the public. It has been a privilege.

MASTER OF CEREMONIES

Thank you very much for your time this evening. It was a pleasure for all of us.

APPPLAUSE.

SOUNDS F/X: CROWD MOVEMENT.

MASTER OF CEREMONIES

We will reconvene day after tomorrow.

INT NIGHT BACK OF LECTURE HALL

JIM
Joan, over here.

A BEAT

JIM
Joan, do you have a good place to stay?

JOAN
I'm staying with Professor Lieberman of the economics department, a fine economic historian. We are going to compare notes. He's going to take me to his home.

JIM
Then let's meet tomorrow in my office to discuss why you wanted to see me. By the way, I thoroughly enjoyed the evening. Thanks for inviting me.

JOAN
You are very welcome. I'll be dropped off at your office tomorrow morning. Merrill Engineering Building, is that right?

JIM
Get some rest. Have a good sleep.

JOAN
Do you have some suggestions?

JIM
Hmm?

JOAN
Never mind (laughs).

INT DAY MORNING MERRILL ENGINEERING BUILDING UNIVERSITY OF UTAH JIM MAYBROOKE'S OFFICE APRIL 15, 1981.

SOUNDS F/X: KNOCK ON DOOR.

JOAN
Jim?

JIM
Come right in. Excuse the mess.

JOAN
I'm an academic,
remember? Compared to my digs this
looks quite tidy.

JIM
Have a seat. Make yourself
comfortable. Can I get you
anything? Coffee? Coke? Water?

JOAN
No I'm fine for now.

JIM
Now please tell me what's on your
mind. I'm dying to know.

JOAN
I want to live forever.

JIM
Is that all? Sounds easy enough.

JOAN
I am quite serious, actually.

JIM
I assume this has something to do
with my dissertation.

JOAN
I read your dissertation. So at
some future time it will be
possible to replicate a human
intelligence in computer code?

JIM
Yes, I definitely believe so. I
prefer the term re-instantiate. A
major error in artificial
intelligence research has been the
assumption the human brain must be
fully understood before it can be
instantiated in code.

JOAN
So could you restate your position?

JIM

I think we will come to understand the workings of the human brain and mind from our creations of artificial intelligence in the machine and in code. I also believe getting artificial intelligence is a matter of scalability in large part.

JOAN

What?

JIM

We will be able to create human scale intelligence when we get enough memory and machine capacity, but that is a whole lot of memory.

JOAN

Like how much?

JIM

Well, say we were to attempt a machine intelligence to match your intellect. That would take all of the computational capacity now available on earth times ten, to take a wild guess.

JOAN

Is such possible?

JIM

When we can do massive network based computing.

JOAN

Is that all that's needed - lots of computer memory? That is not the implication of your dissertation.

JIM

There must be a piece of code, so well designed that it can build itself, replicate itself into an instance of a human intelligence.

JOAN

And computer code can do that, I take it?

JIM

The root node, or spark, or driver would use recursion to build the intelligence.

JOAN

I think this is enough for now. Could we have some lunch? I need to take my pills.

INT DAY AFTERNOON JIM MAYBROOKE'S OFFICE APRIL 15, 1981

JOAN

Thank you for lunch. It felt good to be back in a university cafeteria. Though you know at Cambridge we and the students would get a lot done at the local pubs. I don't see much of that evident here.

JIM

No, this isn't Cambridge.

JOAN

Isn't April 15 tax day, the day you have to have filed? Have you filed yours?

JIM

Yes, mine is a simple return, you know form.

JOAN

Nice little office you have here. I spy the Great Salt Lake there in the west, and whose smokestack is that off to the left?

JIM

That is the Kennecott Copper smelter. When I was an undergrad here at Utah I worked across the street at Kennecott Research. I ran a front end loader, crushing ore for ore dressing experiments. Do you or your grandchildren play Atari games by any chance?

JOAN

Yes, my grandchildren do. Why do you ask?

JIM

Atari was invented right here in this office by Nolan Bushnell.

JOAN

Bushnell?

JIM

A brilliant local engineer, world class really. I wish I were in Bushnell's class as an engineer.

JOAN

But clearly you are a first rate computer scientist are you not (there is questioning in Joan's voice)?

JIM

Some say so, but here are the facts. I wrote an innovative dissertation on the prospects of human intellect grade artificial intelligence. It has been a sensation. Can I pull it off? Time will tell.

JOAN

You have been called the next Alan Turing. I knew Turing.

JIM

Wonderful. We'll have to talk.

JOAN

I gather your committee was impressed by and accepted your information structure which is the heart of your disseration. Is that right?

JIM

Yes.

JOAN

What impressed them?

JIM

It is a structure totally unique in the literature. It is a completely balanced structure which can replicate itself as much as it needs to, AND it is self-correcting. So it possesses intelligence from the start. This I gave it. I think it can work, but it is going to take a whole lot of capacity to work.

a beat. a silence.

JOAN

Where does your interest in computer science come from?

JIM

I first became interested in coding when my Dad had me learn Morse code. He was an old time railroad dispatcher who used Morse.

JOAN

So why did you decide to come to Utah after Stanford?

JIM

Mostly to take care of my elderly parents. I was an only child and they were old when they had me, so only I could take care of them. My Dad died two years ago. For AI, Utah is not the best place, but Utah is big in network design, and I am interested in networking as a computation platform. And Utah is very big in computer graphics. That's why Bushnell was attracted to the place. Graphics are also important in AI.

a beat.

JIM

Let's plan.

JOAN

If you knew almost everything about me, could you have me reassembled, or to use your terminology re-instantiated, as an intelligent

JOAN
 entity? I am late in my career and I am receiving many honors, but my influence is waning. Economics needs me. Society needs me. My children need me. The economics discipline lags and only I can get it caught up. Nothing is going to work until our economics is up to its task.

JIM
 That's for sure - I think. What do you want your re-instantiated you to be able to accomplish?

JOAN
 I want the future me to be able to give intelligent responses to the problems of the day. I want to go on developing new theory.

JIM
 Let's talk Friday morning after the lectures are over.

Sound F/X: The phone rings.

JIM
 Yes, professor she will be out shortly.

JIM
 Professor Lieberman is outside to take you back to his place.

JIM
 Good bye now, have a good evening.

Jim kisses Joan on cheek.

JOAN
 Like kissing your gram, aye Jim. Why don't you give me a real kiss?

Jim gives Joan a "real" kiss, holding her tightly.

Sound F/X - Kissing noises.

JOAN
 Good Jim. Do you love me Jim? Could you love me? You need

JOAN
to to know me. I am a young woman
in an old woman's body. Inside I
am still a vital human being with
needs and passions.

JIM
Yes you are (swallows).

JOAN
I don't see any family pictures
here. Are you still single?

JIM
Yes.

JOAN
So much the better. You can
consider yourself my last
lover. How's that?

JIM
You are wonderful.

JOAN
Thank you. See you at the lecture
tomorrow?

JIM
I wouldn't miss it.

INT NIGHT MARRIOTT LIBRARY UNIVERSITY OF UTAH SECOND DAY OF
TANNER LECTURES APRIL 16, 1981

Sound F/X: Chairs moving, papers shuffling, microphone
noise. University lecture hall. Same setup as before.

JOAN
Now, lastly I would like to address
the path economics must take if it
is to be relevant and useful. I
wrote an essay, a book really, on
Marx. The theory of short-period
fluctuations in effective demand,
opened up by Mr. Keynes's General
Theory, has already made great
progress. Marx, by contrast, was
mainly concerned with long-run
dynamic analysis, and this field is
still largely untilled. Marx,
however imperfectly he worked out
the details, set himself the task

JOAN
of discovering the laws of motion
of capitalism, and if there is any
hope of progress in economics at
all, it must be in using the
methods roughed out by Marx.

INT NIGHT BACK OF LECTURE HALL

JOAN
Tomorrow.

JIM
Tomorrow my office.

INT DAY MORNING JIM MAYBROOKE'S OFFICE APRIL 17, 1981

JIM
Are you well rested for journey?

JOAN
I feel well.

JIM
Fine. Let's get started.

a beat.

JIM
So Joan here's how we will
proceed. We will enter all of your
written works into computer
media. We will also enter all of
the biographical information we can
get for you. We will contact you
for any material we might
need. Please volunteer anything
you can think of. We will contact
your colleagues at Cambridge for
information about you.

JOAN
They will be glad to help. I will
notify them that you will be
calling for their help, but I won't
reveal the nature of our work of
course. I'll just tell them that
you are doing a biography on
various kinds of economic
scholarship or something like that.

JIM
I love you Joan.

JOAN
I love you Jim.

JOAN
You know I won't see you again.

JIM
I know, but mabye?

JIM
Tomorrow.

JOAN
Tomorrow and tomorrow and tomorrow.

Sounds F/X - Door closing, Jim collapsing into his chair,
Jim weeping.

Below Joan sounds slightly mechanical.

JOAN
When I die will I live again? When
you die will you live again? Find
out in the next episodes of Here's
To You Mrs. Robinson.

SOUNDS F/X: SCREAMING, HOWLING WIND AND DUST, BURNING.

JOAN
Tomorrow and Tomorrow and Tomorrow

Cooperate, Cooperate, Cooperate.

End of Episode 1.

Start of Episode 2.

JIM
Voice Over. In the 1980's I became
a man. When I met Joan I
immediately fell for her. Why? It
was her personality and power
mostly, and I have to admit she was
attractive to me even though she
was many years my senior. In fact
the age difference was a kind of
kinky draw. I was seduced. But I
can tell you I wouldn't have missed
it for the world. What a ride this
has been! I wonder if I would have

JIM
done this fantastic experiment
without Joan.

INT DAY UNIVERSITY OF UTAH STUDENT CAFETERIA FALL 1982

Sound F/X - Cafeteria sounds.

JIM
Bob! How are you doing? Have a
seat.

BOB
Pretty good. Just plying my craft.

JIM
Here's my punch card. Get yourself
a cup.

2 beats.

BOB
Well, same old crap. Caffeine and
plenty of gas.

JIM
Plying your craft? You are our
best student to date, and I mean
it. Who are you working for and
where?

BOB
Applied Computation in
Denver. I've come over here to
finalize delivering a software
project.

JIM
Oh? What is it?

BOB
Well, on the westside three
railroads converge in a tangle of
track. The last one to show up was
the Rio Grande. Since they are the
last they have had to maintain an
interlocking - you know a tower to
throw signals and switches.

JIM
OK, so?

BOB

They've had to man that tower with a guy 24/7/365 to handle the interlocking and its expensive. They belong to the dispatchers union. Since the seven or so guys are getting older and they don't want to replace them, they wanted to remote the whole thing from Denver - headquarters - using software instead of the manpower. And the software is incredibly complex. Five man-years to do it.

JIM

I'm sure. What software platform?

BOB

PL-1. It's complicated because freights of all different lengths cross there with differing priorities. The software has to act so as to prevent a gridlock, costing plenty.

JIM

When you get the product done, would you say it was conscious? Aware?

BOB

Yes, I would say so. But the final product does not learn - I know where you're coming from. We could have had it do AI and learn, but it would have learned from mistakes - like gridlock or even wrecks. We couldn't have that so we have had to anticipate every possible contingency.

JIM

You're not an AI guy, but wouldn't you say all running computer programs are conscious?

BOB

Yes, but that doesn't necessarily mean they think.

JIM

Yes, but they do think. Programs which won't run are generally called "brain dead." Let me ask you something. If you started with one computer and then networked it with an ever greater number of computers as one big computer, at some point would intelligence or consciousness spontaneously appear?

BOB

No, but that's just my opinion, and I think it's yours right? Didn't happen with the railroad application. I wish it would have, could've saved us a ton of work. I think you would have to have a kernel or node which was super-smart to direct things. I don't think intelligence is just a matter of computational size, though size is necessary, just not sufficient.

JIM

Well, that's what my dissertation says. Consider something, though. If you were to biopsy my brain, and take out a few cells. Those individual cells wouldn't give a damn about anything. They're just cells, stupid cells. Yet all together you have intelligence. Where's the central node or spark?

BOB

You're the AI expert here not me. If you find out let me know. We could make a million or two.

Fade out.

INT DAY FACULTY OFFICE NOTRE DAME UNIVERSITY OCTOBER 1983.

Strand is female.

JIM

Well I've finally made it to Notre Dame. When I was a kid we had a

JIM

neighbor whose dad worked for Studebaker here in South Bend. What an interesting place. Professor Strand, I'm really glad you agreed to discuss with me some issues you know a lot about.

STRAND

Yes, consciousness.

JIM

How do you explain it?

STRAND

Well, Jim, let's get the religion stuff out of the way first, OK? I'm Catholic - you don't have to be to teach here by the way - we even have a couple of Mormons here, but as you married a Catholic girl you know Catholics and Mormons view the human spirit pretty much the same way. The body is just a vehicle for the spirit. So, in theology it's the spirit which has consciousness.

JIM

OK. Fine, but let's talk theory shall we?

STRAND

As a theoretical matter it may well be that mass or quantity creates consciousness.

JIM

Yes?

STRAND

Consider brain tissue. Sometimes such is extracted for biopsy for example. This reveals a group of cells which are incapable of doing anything but a very finite task. But when grouped with a countably infinite number of other cells, that accommodates consciousness.

JIM

Yes that is one possibility, and viewed from the perspective of computer science, quite likely.

STRAND

But that of course doesn't explain how the intelligence of consciousness evolves, and that is where you have come in, and let me say brilliantly.

JIM

Thank you.

STRAND

I have read your dissertation. You have proved to my satisfaction that if a well constructed core, cell, or kernel is developed, that it can replicate itself repeatedly, by invoking itself, to create an intelligence - a consciousness. And is that not the way it happens with human beings and animals? Bravo, Jim!

JIM

Right, if I'm right, the key to creating intelligence is recursion building information structures, but well conceived ones.

STRAND

But what determines the personality, shall we say, of the consciousness?

JIM

That would be determined by the information it assimilates while it is building - and it will need a lot of information.

STRAND

Jim, in your correspondence you mentioned Joan Robinson, the Cambridge economist. I get the sense she is a focus of your efforts. I noticed she died a couple of months ago. Enlighten me.

JIM

Yes, she passed on. And yes she is a focus of my research. Wish me luck.

STRAND

I do, Jim. I do.

INT DAY PHYSICS LECTURE HALL BRIGHAM YOUNG UNIVERSITY SPRING 1985

Sound F/X - Lecture hall background before a meeting or lecture, sounds like a large cavernous room.

BIRELL

For visitors let me introduce myself. I am Professor Birell of the computer science department. This seminar is primarily for students and my colleagues in the BYU computer science department. We have invited Dr. Maybrooke because of your many questions about this project. Jim says you can feel free to ask any question at any time. Oh, and by the way anyone can ask a question, not just computer geeks.

good natured laughter.

BIRELL

Professor Jim Maybrooke of the University of Utah achieved major noteriaty with his Stanford dissertation on human grade artificial intelligence. In addition to his regular duties at the "U" he continues to pursue this aim. I know you are all interested in his project so please welcome him now. Professor Maybrooke.

Applause.

JIM

Thank you for inviting me, Bill. I always enjoy myself down here at the "Y," especially the ice cream bar (wide laughter). Let's get to the topic at hand, my intent is to reproduce or re-instantiate a major

JIM
 intellect in the economics
 discipline - Joan Violet Robinson -
 whom I met with personally just
 four years ago. She has now passed
 on. She was a remarkable intellect
 and a wonderful woman. Do we have
 anyone of the economics persuasion
 here?

Sounds F/X: a woman responds.

ECONOMIST
 Robinson, or Mrs. Robinson as she
 is known to us, was the best
 economist of her generation,
 despite what the conservatives in
 this place think. She very nearly
 defined a new economics system. I
 applaud you.

Sounds F/X: Nonspecific talk.

STUDENT #1
 Dr. Maybrooke, what are you
 proposing to do, really? Are you
 really going to reproduce THE Joan
 Robinson, or are you going to be
 simulating her?

JIM
 In computer science we are
 preoccupied with the matter of
 instance or instantiation. So, for
 example, in code we can have an
 object. Once that object is
 defined we can produce instances,
 or copies if you will, of that
 object or template, as many as we
 want. I propose to create an
 instance of Joan Robinson. So if
 things work out we will create a
 real Joan Robinson, but not the one
 who lived in the flesh. Does that
 make sense?

STUDENT #1
 Yes, I think so, but how accurately
 will your instance copy the real
 Joan Robinson?

JIM

As closely as we can. Let me be clear about something. We will not be producing a static exhibit. Our instance of Joan will be capable of gathering her own material, and will be capable of building herself to suit herself. She will be fully alive. She will be able to read and EXPERIENCE just like you, mostly.

STUDENT #1

Yes, mostly. I note the word mostly. Will she have the emotions of a human being? We will have the emotions she had in life? And while we are at it, will she be a "she?" How can you have sex in computer code?

BIRELL

Careful here Jim, this is a very religious campus. Don't get me in trouble (laughs).

JIM

Contrary to rumors I have never attempted to seduce a female or male colleague in the printouts.

Laughter.

JIM

She will self-identify as female because all of the information she will be fed and she will find will be from herself in life. As for her emotional make-up that remains to be seen. We can't know at this point, nor are we likely to even with the first instances.

Views of an interested but also troubled audience.

STUDENT #2

You talk of instances. I take it there will be several or many. Each time you abort, and I used the term deliberately, each time you abort an instance, are you killing something or someone? Will you be like the fertility doctor

STUDENT #2

who throws away some fertilized eggs? Are you thinking about this stuff?

JIM

Yes, I have thought about this a great deal. As for aborting an instance, yes I well think this could be seen as a killing. Keep in mind Joan authorized me to do this sort of thing before she died. So nothing we will be doing will be contrary to her understanding, if that helps.

STUDENT #2

Yes that helps some. Pardon me for asking this, but are you still a member of the Church, and have you asked your Church leaders about the wisdom of what you're doing?

JIM

Yes, I am still a member, but not an active one. No, I have not asked Church leadership about my project. I have asked fellow LDS however, many of them, and let me tell you I get a wide variety of answers.

STUDENT #2

Birell here is a bishop, why don't you ask him?

BIRELL

Yes, I'm a bishop, but not Jim's bishop. Next question.

STUDENT #3

Is what you're trying to do, moral? I mean is it moral for man to try to create life? I understand that we LDS believe we are of the same race as God, so creating life is something we are bound to attempt at some point, but the question remains - is it moral? And do you think the Lord may slap you down in this attempt?

JIM

As you may know I married my high school sweetheart, a nice Catholic girl. We are now pregnant. We have created life. But I understand, your question to be one of artificially creating life. Fertility physicians are doing all sorts of things to create life not envisioned by the authors of the Bible for example. So to answer your question, I think what I'm doing is moral.

Sound F/X: Small group of students more or less in unison
No, you are doing something which is not moral! You do not have the authority or the right.

Sound F/X: Non-specific loud shouting.

BIRELL

You students, please leave. Jim came down as a courtesy to me. Please leave. And for my money what he is doing is moral, just as trying to prolong life is moral. Leave.

BIRELL

Sorry about that. Let me ask a question. Did you get any DNA samples from Joan, and how might you use such in a computer experiment?

JIM

Not while she was here. Subsequently we have obtained a computer coded copy of her DNA. That has not as yet been included in the experiment, though it might well be. But using DNA is not the main focus at this point.

STUDENT #4

I've tried reading your Stanford dissertation. Tough stuff! But as I comprehend it, it seems to me you are doing behavior modeling as opposed to biological modeling. Is that correct?

JIM

Right on! That is what we are doing.

STUDENT #4

Could you explain why you think the path to understanding the human mind and brain is through computer simulation as opposed to studying actual human brains?

JIM

I think either route is possible, but trying to study gray matter seems just too complicated, and messy (laughter). We can do things fast with code, much much slower with actual biological mass. The medical guys may come up with some improved methods. Good for them. In the meantime we will proceed with AI.

STUDENT #5

But why bring back Joan Robinson? Lots of people could be brought back, or re-instantiated to use your lingo, but why bring her back?

ECONOMIST

Could I answer that.

JIM

Please.

ECONOMIST

There have been precious few complete theoretical economics systems. Adam Smith had one. Karl Marx had one. Right now our theoretical system is a mish-mash. Mrs. Robinson was on her way to creating a complete Keynesian system when she died. We need her back.

JIM

Thank you for that. I have become acquainted with Joan's theoretical work, at least as much as a computer geek can. Her insights are, I believe, critical in the

JIM
years ahead. She was on her way to creating a complete Keynesian - Marxian theoretical system. We need her.

STUDENT #5
Marxian? You can't be serious.

ECONOMIST
He is.

STUDENT #6
What software platform are you going to use? And how are you going to manage what has got to be an enormous software engineering undertaking?

JIM
We will start writing in C. C has the attributes we need. Dr. Birell are you teaching your students C language programming?

BIRELL
Right now it is an elective. Most of our theoretical material is being taught using Pascal.

JIM
Pascal is a good teaching language, but as a practical production language it doesn't come close to C. The future belongs to C. As for managing the project we haven't gotten that far yet. You are right to point this out. We have a lot to figure out, that's for sure.

STUDENT #6
Have you used any of the work of Douglas Hofstadter, as in Godel, Escher, Bach?

JIM
Very much so. Discussing that calls for a seminar in of itself. I'll say this though, Hofstadter is very important, particularly in the massive indirections which will be needed in the code.

STUDENT #7

Dr. Maybrooke you're getting into some pretty far out stuff. Do you think there is life after death?

Jim appears startled then bemused.

ECONOMIST

You should ask Bishop Birell for the record.

Laughter.

BIRELL

Ahem. I think we are out of time. Thank you Jim for coming down. It was very interesting for all of us. Let's give Jim a round of applause.

Hearty applause.

INT DAY DEPARTMENT OFFICES UNIVERSITY OF PITTSBURGH 1988.

Sound F/X - General office noise.

JIM

Hello, I have an appointment with Dr. Fleiss.

Fleiss is male.

FLEISS

I'm here (from a distance). How are you Maybrooke?

JIM

Fine. Great to meet you.

FLEISS

Jim, sorry I'm late. I was over at Three Rivers Stadium with the Steelers Boosters. And how 'bout those Steelers! They really took care of hick Denver yesterday: 39 to 21. You don't have an NFL team in little old Salt Lake, do you. You don't root for Denver do you? Hadn't better. Well, welcome to Pittsburgh. I hope the campus accommodations are suitable.

JIM

Very.

FLEISS

Let's go into my office where we can think.

INT DAY FACULTY MEMBERS OFFICE.

FLEISS

So you want to talk about consciousness. I always want to talk about it, at least when I'm conscious, not drunk.

JIM

Good one. I seem to talk to philosophers about this more than any other people. So Professor Fleiss what is consciousness in your view?

FLEISS

Damned if I know. OK, enough with the chit chat. I'm pretty sure there are classes of consciousness - animals, humans, machines, objects; and within those classes varying degrees. But as to what consciousness is, I haven't gotten that far. I've been more concerned with quantity, not qualities.

JIM

I'm intrigued with the idea that machines are or can be consciousness. Systems too?

FLEISS

Absolutely. Consider air traffic control. If that system isn't conscious it's hell to pay.

JIM

Laughs. But where is the center of consciousness for things and beings? A similar question would be - where is the soul of a man?

FLEISS

Man is that ever tough. I asked a friend, a recently retired

FLEISS
 neurosurgeon, "you crack open
 people's heads for a living, but do
 you know where the center of
 consciousness is?" His answer was,
 and I kid you not, "no I don't -
 scary huh?"

Both laugh vigorously.

FLEISS
 Think about it. Each of us resides
 somewhere between our eyes and the
 back of our heads, and between our
 two ears. And we gaze out at the
 world like from the deck of a ship
 or the flight deck of an airliner.

JIM
 Could we say that the soul lives in
 that place?

FLEISS
 Yea, except when I have my head up
 my ass.

Sound F/X: Laughter

JIM
 Could the center of consciousness
 be somewhere else or something
 else?

FLEISS
 Sure. You've heard the term "gut
 feel or I feel deep down in my gut
 or gut instinct." In that case the
 center could be in our guts. Some
 think the human intestines have
 intelligence apart from and equal
 to the brain. Hmm. Is the wife
 complimenting me when she says I'm
 getting too smart for my own good?

JIM
 Do you have a gut feel about
 consciousness.

FLEISS
 Yes, and here it is. All things
 possess a duality. That is, they
 have a physical presence and inside
 of them a spark, central node,

FLEISS
spirit, whatever which uses the
physical thing or body.

JIM
If that is the case, then what is
Artificial Intelligence?

FLEISS
Well, Jim, it is the process of
giving something that central node
or spirit. And, Jim my boy, your
dissertation describes how it could
be done, at least theoretically.

JIM
And I can load it with
characteristics, a personality?

FLEISS
Makes sense. So you have something
in mind, eh?

JIM
Yes.

FLEISS
Fine. But be careful. We don't
want to be another Frankenstein, do
we?

Laughs all around, but Jim more nervously.

INT. DAY JIM'S OFFICE MERRILL ENGINEERING BUILDING 1989.

Sound F/X: There is a knock on Jim's door.

JIM
Yes. Come in.

JIN JING
I am Jin Jing from the People's
Republic of China.

Jin Jing is a young Asian female, Mandarin dialect.

JIM
Jin Jing I'm very very glad to meet
you.

JIN JING

I have looked forward to meeting you, Professor.

JIM

I am very pleased to have you do your post doc work with us. I really need you. Have you found a nice place to stay? Would you like to come to my house to have dinner with me and the family?

JIN JING

Yes and yes.

JIM

So why did you decide to accept our offer?

JIN JING

This is a good department, but I know you have other interests in addition to the department's major goals, and it is those other interests that really interest me.

JIM

Fine, and it is those interests which had me seek you out. I know you are expert in C and in Java. I need both of those very badly. And you have outstanding recommendations with information structures. And of course you could go to any AI organization in the world.

JIN JING

Thanks you. I am your woman.

JIM

I appreciated your comments on my dissertation.

JIN JING

I hope I did not give offense in my criticisms.

JIM

Thank you and no indeed, your criticism were spot on. Welcome to the United States and the University of Utah.

JIN JING

Thank you.

INT DAY UNIVERSITY OF UTAH STUDENT UNION CAFETERIA SPRING
1990.

Sound F/X - Cafeteria noise.

JIN JING

Are you comfortable talking about
this in public? Don't you worry
about somebody stealing your idea?

JIM

Relax, OK? No, believe me nobody
but us are nuts enough to try this.

JIN JING

As you say, OK.

JIM

I propose that Mrs. Robinson's next
instantiation be done in C.

JIN JING

Definitely.

JIM

The whole thing will have to be
ported to the new Java at some
point. Thoughts?

JIN JING

Let's try to build into the initial
construct the ability to
self-generate, and after that the
ability to rewrite herself in
Java.

JIM

Let's do a literature search on
current information
structures. And what we can't find
we develop. Thoughts?

JIN JING

This sounds good to me.

JIM

Let's be clear what we are
doing. Initially we are building
the driver node, the spark, the

JIM
 key, the spirit so to speak. So we
 are creating a generic spark. You
 follow?

JIN JING
 Yes, and the kind of consciousness
 we create will be determined by the
 information fed the spark.

JIM
 Exactly.

JIN JING
 This project should have a
 name. What will we call it?

JIM
 Well how about Virtual Joan? VJ
 for short.

JIN JING
 VJ it is!

INT DAY HOTEL PALMER HOUSE DENVER COLORADO - 1991

This is the annual AIAI - American Institute of Artificial
 Intelligence meeting. Jim is at the lectern addressing
 attendees.

Sound F/X: General large meeting room noises.

JIM
 I am honored to address you at this
 prestigious AIAI regarding a
 project which I believe will
 advance Artificial Intelligence by
 decades. But if perchance it
 doesn't work I may have to
 surrender my PhD.

Laughter all around.

JIM
 The project in question will
 attempt to create a new instance of
 a person who has actually lived,
 but this time as a digital
 entity. This attempt will
 closely follow the theory developed
 in my Stanford PhD dissertation.

Sound F/X: This is going to be a long presentation where fade ins and fade outs are used.

JIM

Intelligence is consciousness. All consciousness/intelligence is created by a central node, spark, or driver. This is true regardless of the medium, be it digital, physical or biological. Moreover that driver or central node must remain after construction in order for the final creation or entity to be viable.

Fade out.

Fade in.

JIM

The use of the word node is important as information structures are integral to the process of creating a digital intelligence. Note please that I make no distinction between digitally-based, biologically-based, or physically-based life. All are life and follow essentially the same rules, though they certainly may have different properties. Alan Turing made this observation years ago.

Fade out.

Fade in.

JIM

As you can see from the slide, each node will be able to create as many instances of itself as will be necessary.

Fade out.

Fade in.

JIM

We are attempting to create an all-purpose central node or driver, which can be used to instantiate

JIM
any intelligence. So our creation
of VJ will await the feeding of
biographical and theoretical
information to the main driver.

Fade out.

Fade in.

JIM
Today we are not discussing the
database aspects of VJ, only the
development of the all-purpose
driver which will use those
databases.

Fade out.

Fade in.

JIM
The central node or driver should
be fairly compact, but even it will
require massive storage as it
invokes itself. But when the
driver starts to crunch the
information in the databases, the
application will get explosively
large, so there are concerns about
hardware platform capacities.

Fade out.

Fade in.

JIM
Never has the subject of
information structures been as
important as in this project. Tell
your students to study information
structures.

Fade out.

Fade in.

JIM
The software platform chosen is
"C," which all of you know was
developed at Bell Labs. C is an
excellent choice because of its
ability to take advantage of

JIM
indirection, construct information structures, access and alter the computer operating system, and define new languages within itself. The last feature is incredibly important.

Fade out.

Fade in.

JIM
The hardware platform will be initially the University of Utah's Univac 1161. The 1161 is a modest mainframe, and will do for development, but the actual VJ implementation will have to be done on an extensive network, an area where the University excels. Networks will require Java - that's where my associate Jin Jing comes in. I will introduce her in a moment.

Fade out.

Fade in.

JIM
The idea is to have the initial node invoke itself over and over again as it adds to itself and as it builds VJ. Recursion is the most powerful tool in programming today. A given structure can make as many copies of itself as necessary. This is just like cells in a biological body. Now think of that.

Fade out.

Fade in.

JIM
When cells divide in the human body they are doing recursions. See, we can get computer code to mimic biology. Do you see? Do you see? DNA writes C computer programs!

Fade out.

Fade in.

JIM

OKAY, we're talking about three to five years to build the driver. When we port to a network, we will map C to Java. Let me introduce my associate from the Peoples Republic of China - Jin Jing. I scoured the earth for her. In every respect she is my equal, and she codes twice as fast as I can. She is a marvel. Come on, take a bow Jin Jing.

Sound F/X: Vigorous applause.

JIM

Now, lastly, let's talk about dangers, ethics and computer science. I have talked to what seems like innumerable philosophers, clergy, physicists, mathematicians, logicians, what have you. They all believe, with just a very few exceptions, that VJ is ethical.

Fade out.

Fade in.

JIM

Are there dangers? Might we create a Frankenstein's monster? No, I don't think so, but I'm not completely sure, frankly. We must be cautious, but not cowardly.

Fade out.

Fade in.

JIM

Computer science is entering a new era. AI will be king. And the beliefs of Alan Turing clear back in the 1930's will be realized.

Vigorous applause - bravos!

Below Joan sounds slightly mechanical.

JOAN

Will I live again? Can all of this really work? Can a person come back to life through computer code? Find out on the next episode of Here's To You Mrs. Robinson.

SOUNDS F/X: SCREAMING, HOWLING WIND AND DUST, BURNING.

JOAN

Tomorrow and Tomorrow and Tomorrow
Cooperate, Cooperate, Cooperate.

End of Episode 2.

Start of Episode 3.

INT DAY - LATE AFTERNOON DIM LIT BAR - "THE LIBERTARIAN" ON SOUTH STATE STREET, SALT LAKE CITY, FALL 1992

Sound F/X: Talking in background, glassware noise.

JIM

Well we're getting nowhere fast, as they say, with VJ.

JIN JING

I don't know why. The pieces, the subroutines and functions, just don't seem to go together. Is our code efficient? It takes forever to compile....Jim, I think maybe you have had enough to drink.

JIM

So? Is it because we have a language barrier with your countrymen? You should be able to help, Jin Jing, but and I hate to say this, you are a big disappointment in that regard.

JIN JING

I am sorry Jim, I just don't understand why we cannot manage this project, though keep in mind nothing like it has been done before.

JIM

Yea, fine, I'm going to get another drink, you?

JIN JING

Well if you don't care, I don't care.

Jim gets up, goes and gets another couple of drinks, and then sits down beside Jin Jing.

Sound F/X - Glasses clinking, chairs moving.

JIN JING

Do you think you are going to have any trouble getting tenure?

JIM

I think I'm ok there, but I have other duties besides this project and I think the department is maybe getting a little tired of it.

JIN JING

Please let me know if there is anything I can do to ease the pressures on you.

JIM

Thank you Jin. I'm sorry for what I said. You know, pardon me for being so forward, but you know you are pretty damned cute.

JIN JING

Not now, alright?

Sound F/X - Man walking.

JIM

Bob! It's me - Jim!

BOB

Well how're ya doin' Jim? Long time no see, as they say.

JIM

Oh, fair to middlin' as they say. I'd like you to meet my associate Jin Jing from China.

BOB

Very nice to meet you.

JIM

Have you got a few minutes? What are you doing in town? Have a seat. Let me buy you a drink or two.

BOB

Looks like you've had a drink or two or three. Sure. Well I'm meeting with some clients.

JIM

Not with the railroad again?

BOB

No I'm working with the outfit here that makes the solid rocket boosters. The railroad application, by the way, still works and has given them no trouble, although every now and then I wonder - will this be the day it screws up? But we do quality work if I do say so myself.

BOB

Say Jim, how is your AI project going? Are you working with Jim on that by any chance, Jin Jing?

JIN JING

Trying to.

JIM

Well frankly, Bob, things could be going better. Well, hell, let's say the project for all intents and purposes is toast. We can't seem to get anywhere. Why, I just don't know.

BOB

Do you guys know what you're doing?

JIM

Beg your pardon?

BOB

No, I mean it. Let me ask you both something. Have either of you ever

BOB
managed - emphasis MANAGED - a
large software engineering project?

3 beats.

BOB
I thought not. You are both
brainiacs when it comes to the
abstract, but neither of you know
diddly about managing a big
project. I'll wager that is where
your problems lie.

JIM
OK, let's have it.

BOB
I'm not sure either of you could
have managed the railroad
interlocking project even. Don't
mean to rub it in. You were great
Jim in all of the classes I took
from you, except for software
engineering. You were just
teaching out of the text,
uncharacteristic of you.

JIM
Yes?

BOB
Let me tell you something about
software engineering. It is pretty
much like other engineering. It is
preeminently planning. You have to
have a comprehensive planning
document before you do
ANYTHING. Actually, you have
probably wasted a lot of time
without a planning document where
everybody signs off.

JIM
Can you help us?

BOB
Yes I can, and will! This project
is too important to let
drop. Don't worry about my fee for
the time being. This could be a
feather in the cap of my
firm. Let's develop a

BOB
comprehensive plan that all of us
can agree on. Are you using any
foreign coding talent, by the way?

JIN JING
Yes, in my country.

BOB
They will have to sign off
too. Everybody has to be working
together. Constant communication
is critical. I contract with
clients and subcontract with other
software houses all over the world
- even Promontory Utah.

Sound F/X: A mild round of laughter.

BOB
By the way, if we want some cheap
coding talent look no farther than
Russia. There's top quality, and I
do mean the very top, coding talent
and theoretical talent over there
doing nothing. Believe me they
want to work, and your project
would really be red meat for some
of them. We will use them. And
while I'm mentioning talent, do you
two get around much?

JIM
What?

BOB
Do you every look past your current
academic silo?

JIN JING
Silo?

BOB
There are things going on outside
of computer science which would be
really interesting to you both, and
practical. My firm works not only
with business applications but also
with a variety of the sciences. I
have found that some of the most
innovative notions come from the
frontiers of disciplines, or where
disciplines come into contact with
each other.

JIM

So?

BOB

Did you know that Darwin's first views of natural selection were inspired by an economist. Darwin's first thoughts about natural selection came from his reading Malthus' Essay on Population. And more to the point, physics is going to have a lot to say about information and consciousness.

JIN JING

I have heard such from my country.

BOB

In my business I have to read constantly in a variety of disciplines. Speaking of Russia there is a coven of physicists in Russia who believe the foundation of physics, the foundation of everything is information. In other words everything contains information of some type. This means that everything is conscious! Try that on for size, Jim!

JIN JING

I believe so.

BOB

These physics guys know what you are trying do, by the way. It's a small world. You should get out more. As they explained it to me, you start building a central node in code, sort of like a fertilized ovum. And then the node has the ability to replicate itself and create other types of nodes, much like a new biological life. Right?

JIM

Exactly so.

BOB

But they go you one better. They maintain that the underlying layer of everything is information. That

BOB
 reality is information and
 information is reality. That
 information is life and life is
 information. So there is no reason
 you cannot create LIFE IN CODE!

JIM
 Yes indeed. You make it sound so
 reasonable. I could almost
 believe.

BOB
 One thing more. You two need to
 talk to a retired physics guy in
 Russia. He is Dimitri
 Kolmogorov. He was big in Soviet
 mind - machine games in the
 seventies and eighties. Not doing
 much now though, he is out of
 grace. I've had him do some work
 for me. Don't think we're the only
 ones trying to do this stuff, do
 you? That's Dimitri
 Kolmogorov. Could I set up a
 meeting with him? You'd have to go
 over there. He doesn't travel
 anymore.

JIM
 Fine with me. You?

JIN JING
 I would love to go.

BOB
 Fine. I've got a flight to catch
 and I need to get my rental car
 back. I'll be in touch. Let's get
 going on this. Time's a wasting.

Sound F/X: Chairs moving, stumbling,

JIM
 Shit!

BARTENDER
 I can't let you guys leave in your
 shape. Call you a cab?

BOB
 I'll give these drunks a lift home
 in my rental.

EXT DAY BUS STOP NEAR URAL MOUNTAINS RUSSIA JANUARY 1993

Sound F/X - Wind, sounds of bus engine, braking noise.

JIM

Are you sure that is the house of
Professor Kolmogorov?

BUS DRIVER

Da. Yes.

JIM

Thank you.

JIN JING

Can we make it there? Snow is
deep.

JIM

I think so. Let's go.

Sound F/X - Jim and Jin Jing slogging through snow, huffing
and puffing. Knock on door, door opening.

Kolmogorov is Russian. Russian dialect.

KOLMOGOROV

Professor Maybrooke. I've been
expecting you!

JIM

Yes! Glad to finally meet you.

KOLMOGOROV

And you must be Jin Jing?

JIN JING

Yes I am. Thank you for seeing us.

KOLMOGOROV

Please come in and warm yourselves.

Sound F/X - Sounds of walking on rough wooden floor. Sounds
of burning wood in stove.

KOLMOGOROV

I would like you to meet my wife
Petra. She does not speak any
English unfortunately. But she is
glad to meet you.

INT DAY KOLMOGOROV'S CABIN

Sound F/X: Wood burning, occasional snap from sap burning.

KOLMOGOROV

Please sit down and rest. Petra, could you fix some tea for our guests. Can I get you both anything else?

JIM

No, thank you.

KOLMOGOROV

How was your trip? Were you able to fly at least most of the way, or did you have to as you say "short hop" when the fuel ran out?

JIM

The latter.

KOLMOGOROV

Yes, flying is a problem over here right now. Flying is being privitized and nobody knows what they are doing.

JIM

So how do you feel about the collapse of Communism?

KOLMOGOROV

It is a tragedy and a gigantic theft from the Russian people. I am a life long Communist and it is a difficult ending to my life.

JIM

How old are you Professor, if you don't mind my asking?

KOLMOGOROV

I am 85 years old. As you can see I am really retired and disconnected. We don't even have a telephone of our own. But I like it here. This is my boyhood home. A man needs to know when he is finished. And I am for a certain. But now you give a chance to do one last thing.

A beat.

Sound F/X - Cups clanking etc.

JIN JING

Thank you very much Mrs. Kolmogorov. Professor, Jim and I are very interested in your work in artificial intelligence. What can you tell us about it.

KOLMOGOROV

Let us retire to my study. Let's bring our tea.

INT DAY KOLMOGOROV'S STUDY

Sound F/X - Fire in stove, sound of wind outside.

KOLMOGOROV

Jin Jing, have a seat in this chair. Jim and I will sit on these boxes. Let me first boot up my little computer. It is standalone. I have no network connections. I just wanted you to see a picture of the subject of my major experiment in artificial intelligence. There he is. He was at one point a cosmonaut. A brave and great man. We used him in an attempt to off load his consciousness to a computer mainframe. Printouts from that experiment line my office here.

JIM

Is he still living?

KOLMOGOROV

No, unfortunately. I fear my experiment shortened his life. It was arduous.

JIN JING

Were you successful?

KOLMOGOROV

Only partially. His computer image or instance is still on the mainframe in Moscow - I hope, but that instance is a mere shadow of the real man. I bear some shame for this experiment.

JIM

But you did learn some important things from your experiment. At least that's what I understand from my friend Bob.

KOLMOGOROV

Yes, Bob Morgan. I like Bob, but he is a capitalist pig as you say in the United States. He did help me earn some much needed income during my decline. Yes we learned some things which I will now describe.

Jim and Jin Jing prepare to take notes.

KOLMOGOROV

In the old Soviet days we were very much interested in being able to transfer intelligence, or in this case an intelligence, to a machine. Initially to a stand alone computer, but eventually to embedded processors of many kinds. Of course during the so-called cold war it was considered desirable to have human level intelligence embedded in orbital satellites, missiles, armaments of all types. Just think of being able to have a human intelligence in the hardware of a satellite, without the need to take care of a biological life form. That was what is was about.

JIN JING

You voiced some regret in your experiments. Did I listen correctly.

KOLMOGOROV

Yes you did. With our cosmonaut we went too fast. For that reason the computer instance was not as useful as it might have been. Also, our subject was subjected to the use of various drugs to speed the intelligence transfer. This was not good for our subject. I fear the experience hastened the death of a brave man and devoted party member.

JIM

How did the intelligence transfer occur?

KOLMOGOROV

Our subject had to remain perfectly still for long periods so he was sedated. Drugs were administered to speed the flow of electronic signals from his brain. A variety of circuitry was attached to his skull, and within his skull, which circuitry was connected to a computer interface, which was in turn connected to the Volga 1000 mainframe.

JIN JING

Did your subject get breaks?

KOLMOGOROV

Yes, every six hours or so, but it was arduous for him. This extended over two years. I have told you why we performed our A I experiment. What motivates you?

JIM

Well, I made a promise to a wonderful woman, to bring her back in some fashion. I am very attached to her memory.

KOLMOGOROV

You love her? Don't be surprised at my question. We understand these things here.

JIM

Yes I do. More than that, I think the world needs her thought. I also think this technology can be the means of rescue for a dying world.

KOLMOGOROV

You surprise me with your wisdom Maybrooke. So you do not think the death of Communism ushers in Utopia do you? It won't. Capitalism will now be unchallenged and it will run itself into the ditch, with millions of innocent victims. You

KOLMOGOROV

will have dictators worse than Hitler. Mark my words. That is why I am going to give you the technology I have developed.

JIM

Is no one in Russia interested in your work?

KOLMOGOROV

Not now. All the powers are interested in here is stealing from the common wealth and making themselves rich. Soviet science - the best in the world - will not return. At some point would-be capitalists here will see a way to make a profit from my work. They shall not have it. I give it to you.

JIN JING

Could you summarize what you have learned?

KOLMOGOROV

I thought you would never ask. Bob Morgan gave me a copy of your dissertation. You assume the aspect of and I quote "as if all matter were composed of digital code." I go one step farther. All matter is coded information consisting of on's and off's, zeros and ones. All of creation is binary. Evolution has not equipped our eyes to see things this way, but nevertheless everything and everyone is binary code at the most basic level. Therefore when we were moving intelligence from the biological body to the Volga 1000 we were reading and writing binary code. You see these stacks of computer readouts. They are the memory readouts of our subject. I will let you take them - or I will have them shipped to you - for your use. They should help you greatly.

JIM

So you did all of this work in machine code?

KOLMOGOROV

Yes. So-called high level languages are for children. Coding directly for the machine is the most desirable. Though I am not familiar with your Bell Labs C language, I understand it is both a high level and low level language. The latter will save you and should make it possible for you to use my readouts. I will also give you a Volga 1000 machine code manual - in Russian of course - to help you. I will autograph it for you.

JIN JING

Oh joy! No, really, thank you, but I take it you do not have any of this on a computer device like tapes?

KOLMOGOROV

No, unfortunately. We were summarily shut down during the political changes. I was not allowed to take any tapes with me when I was forced out. In fact these printouts were being shipped to the Moscow dump when I intervened and paid to have them shipped here. This work must be preserved.

JIM

It will I assure you. Of course our work is not precisely like your work. You attempted to move consciousness from a living human being to the machine. We are trying to recreate a consciousness in the machine from a written stream.

KOLMOGOROV

Yes, I know full well about your research. Trust me, my code will help you. It may even be the missing part of your effort. I

KOLMOGOROV
know all about what you are doing
from what Bob has told me. Let me
mention something else we tried to
do. We attempted to move a human
intelligence to a primitive being -
I think you call them Big Foot.

JIM
No! You are kidding of course.

Kolmogorov laughs loudly.

KOLMOGOROV
Don't underestimate Soviet science.

JIN JING
Could you tell me something about
your computer platform?

KOLMOGOROV
Do not turn up your nose at the
Volga 1000. It is very much the
equal of your Crays, and much
better than what you are using at
Utah. Now lastly, please be
careful. Make your VJ work in a
manner worthy of its
inspiration. Be deliberate and be
careful. Do not work in haste.
Promise me!

JIM
We will. We promise.

KOLMOGOROV
Now here is how we will get these
readouts to you. A research team
here in Russia is to ship Mastodon
castings to your museum of natural
history in Salt Lake City. This is
all true. The readouts will be the
packing material. All will be put
into a standard 35 foot shipping
container labelled Hanjin. Take
notes please. The container will
be routed over the Trans-Siberian
to Vladavostok, much less likely to
be inspected there than in western
ports. The container will proceed
to the Port of Long Beach, then by
rail to the intermodal facility on
the westside of Salt Lake City.

JIM

Know the area well. I grew up there.

KOLMOGOROV

Fine. You will need to arrange transport from the intermodal facility to the university. Barring any interference, you will have your readouts.

JIM

You've thought of everything. I can never repay you.

JIN JING

Thank you for seeing us. I will cherish this always.

EXT DAY PORT OF LONG BEACH FEBRUARY 1993

Sound F/X Port sounds. Ship horns and whistles. Seagulls.

HARBOR MASTER

OK guys I've got some interesting cargo on the immediate right here.

FBI AGENT ONE

Good. What's in this Hanjin container?

HARBOR MASTER

Says mastodon castings. Going to the University of Utah from Russia, I guess with love.

Mild laughter.

FBI AGENT TWO

Who's it consigned to?

HARBOR MASTER

A guy named James Maybrooke.

FBI AGENT ONE

Open it up.

Sound F/X - Container being opened - seal being cut, squeaky door.

FBI AGENT TWO

Castings alright. Wait - look at these printouts. Looks like wild stuff.

FBI AGENT ONE

Make a note on this guy. Prepare a report for my signature to send to headquarters.

Below Joan sounds slightly mechanical.

JOAN

What happens to VJ? Will I return? And will Jim, Jin Jing and I become objects of suspicion? Find out in the next episodes of Here's To You Mrs. Robinson.

SOUNDS F/X: SCREAMING, HOWLING WIND AND DUST, BURNING.

JOAN

Tomorrow and Tomorrow and Tomorrow
Cooperate, Cooperate, Cooperate.

End of Episode 3.

Start of Episode 4.

INT DAY JIM'S OFFICE MERRILL ENGINEERING BUILDING NOVEMBER 1996

Sounds F/X: General office noise, background talking in distance.

JIN JING

What's the term? Blown Away? Well I am blown away about how compact this program is. You've done it Jim. If this works you can be nominated for a Nobel Prize in any of a number of fields.

JIM

In the unlikely event I get a Nobel Prize, you will share it. Joan would have it no other way, and she made a point of it back in '81. You know, Joan should have received the Nobel Prize in economics.

JIN JING
Why didn't she?

JIM
Well, maybe because she went so far to the political left late in life. Maybe because she was a woman. Maybe a combination. Who knows?

JIN JING
Well, this is a sweep for you Jim. VJ is done and your beloved Clinton is re-elected.

JIM
Well yes, that too. I'm not really political. And VJ is NOT done. There is a lot of debugging yet to be done.

JIN JING
Sorry, but I am so excited! So do we want to go with the CSD debugger?

JIM
Yes, I think so. Debugging tools for C are still pretty primitive. It's going to be a fight.

JIN JING
So we have an beta executable on the 1161. Are we ready to build a Joan database for it - her - to play with?

JIM
Let's use the Chengdu money to start scanning everything Joan Robinson.

JIN JING
OKAY! But...

JIM
You look worried. I get nervous when you worry.

JIN JING
If the 1161 cramps her, will she be in pain? Is this cruel to run her on the 1161?

JIM
Remember she will not be
biological.

JIN JING
You have always told me there is
equivalency between the digital and
the biological, right?

JIM
Yea (troubled). Nevertheless let's
set a date to launch on the 1161,
okay?

JIN JING
OKAY.

INT DAY RAISED FLOOR OPERATIONS ROOM UNIVAC 1161 MAINFRAME
BEGINNING OF CHRISTMANS HOLIDAYS 1996.

SOUNDS F/X: TAPE DRIVES WHIRRING, AIR CONDITIONING NOISE,
CARD READER CLATTER, COMPUTER ROOM NOISE FALLS AND RISES AS
DOORS ARE CLOSED AND OPENED.

JIM
So LeRoy all of your clients have
been told we are hogging the 1161
over the Christmas break?

LEROY
Yep, as of right now everybody
should be off of the system. Make
sure will you Carl?

STAFFER
A-ok.

LEROY
The system is yours. I will be
around through the experiment. I'm
sorry to use that word, but it is
one, and I wouldn't miss it for
anything. This is history!

JIM
Thanks for all of your help.

JIN JING
Yes, thanks LeRoy. I don't know
what we would have done without
you.

JIM
Are your people in China standing
by?

JIN JING
Yes they are. Our investors there
are also eagerly awaiting
startup. Are the Russians
available?

JIM
Yes. But also, they have told me
how they'd hoped Dimitri was part
of the team. I explained why he
couldn't be to protect him.

JIN JING
I wish it were possible to give him
credit.

3 beats.

JIM
I'm so damned nervous I've got to
hit the can. Be back in a minute,
OK? Anybody else need to
go? Now's the time.

LEROY
Let's all go relieve ourselves,
though not in the same
place! Let's spread the wealth.

SOUNDS F/X: DOORS OPENING, PEOPLE WALKING ON RAISED FLOOR.

fade out. fade in.

SOUNDS F/X: TAPE DRIVES WHIRRING, AIR CONDITIONING NOISE,
CARD READER CLATTER, COMPUTER ROOM NOISE FALLS AND RISES AS
DOORS ARE CLOSED AND OPENED.

LEROY
As I understand it, Jim, we will
not be building VJ in her totality
over the holiday, right? We are
just building her core intellect.

JIM
Right.

LEROY
Since we anticipate VJ, even in
this elementary form, will be a

LEROY
 memory pig, sorry VJ, I have taken
 the liberty to network with a
 number of other university and
 college computer centers - 50 in
 all. How does that sound?

JIM
 Wow! Thanks.

JIN JING
 Superb!

JIM
 Who wants to start it, or her?

JIN JING
 I will.

JIM
 Go for it!

SOUNDS F/X: FINGERS WORKING A KEYBOARD.

LEROY
 Anybody see any diagnostics or
 error warnings?

Silence.

SOUNDS F/X: SUDDENLY SOUND LEVEL IN OPERATIONS ROOM GOES
 WAY DOWN.

LEROY
 What the hell? Check the
 operations room console.

Sound F/X - Furiously working impact printer.

JIM
 We've crashed. Here comes the core
 dump now. Can you read this shit,
 LeRoy, I can't.

JIN JING
 We've got C diagnostics - "attempt
 to access memory outside of
 established arrays?" Make any
 sense?

JIM
 Let's start up the executable again
 only this time inside of the

JIM
debugger, though it's going to be a
lot slower this time.

SOUNDS F/X: FINGERS ON KEYBOARD

fade out. fade in.

JIN JING
Alright here is a lot of
diagnostics. This is a complete
surprise.

LEROY
Can you guys plow through all of
this?

JIM
Let's go to the conference room and
look this over. We've got a couple
of thousand diagnostics
here. Make sure we have the
Chinese and the Russians available.

JOAN
VO - For 3 days they struggled with
the code, making coding changes.

JIM
Well OK, changes made, but let's
just load the code with a bunch of
print f's this time. I'm just a
simpleton at heart.

Sound F/X - Keyboard noise. Sounds of tape drives spinning
up. Background computer room noise.

SOUNDS F/X: IMPACT PRINTER RUNNING WILD, RIPPING OFF OUTPUT
FROM PRINTER.

JIM
Ok, let's go look this crap
over. What, you didn't expect this
to work the first time did you?

fade out. fade in.

JIM
Enter these changes.

SOUNDS: F/X FINGERS ON KEYS.

SOUNDS: F/X COMPUTER ROOM NOISE GOES DOWN.

LEROY

Damn!

fade out. fade in.

Several beats.

JIM

Enter these.

SOUNDS: F/X FINGERS ON KEYS.

SOUNDS: F/X COMPUTER ROOM NOISE GOES DOWN.

LEROY

Shit!

fade out. fade in.

Several beats.

JIM

Enter these changes.

SOUNDS: F/X FINGERS ON KEYS.

SOUNDS: F/X COMPUTER ROOM NOISE GOES DOWN.

LEROY

Double shit!

JIM

Dammit I've about had it. This is all so fucked.

Sound F/X - Sounds of Jim banging his head against the wall.

JIM

Shit, shit, shit, shit....

LEROY

What are you, some little kid, some little shit adolescent? How about you grow up. Let's have some maturity here.

JIM

Sorry, sorry to you both.

JOAN

VO - Good solid, reliable LeRoy, a grownup. I owe a lot to him. They would not have made it without him,

JOAN
and I would not be here without
him.

fade out. fade in.

JIM
Enter these changes. I've moved
some of the preprocessor stuff
inside of the main driver.

JIN JING
Ok.

SOUNDS: F/X FINGERS ON KEYS.

LEROY
Geez, are we going to keep going?

JIM
Any Bronx cheers?

LEROY
OKAY for now. I've placed cots out
in the hall. I don't know about
you all, but its uncomfortably cool
and too noisy to rest in
here. Somebody has always got to
be here at the main OS terminal.

JIM
Fine.

LEROY
Let's settle in for two weeks of
fun and terror!

fade out. fade in.

INT DAY 1161 OPERATIONS ROOM 1161 END OF CHRISTMAS/NEW YEARS
HOLIDAYS

SOUNDS F/X: TAPE DRIVES WHIRRING, AIR CONDITIONING NOISE,
CARD READER CLATTER, COMPUTER ROOM NOISE FALLS AND RISES AS
DOORS ARE CLOSED AND OPENED.

Everybody looks disheveled and tired.

JIM
Well a belated Merry Christmans and
Happy New Year to Y'all. Anybody
really miss 'em?

LEROY

Well will somebody please see if
she is awake?

JIM

Type something like "Joan, are you
there?"

NOISES F/X: FINGERS ON KEYS.

5 beats.

SOUNDS F/X: VERY MECHANICAL SOUNDING - HELLOO I AM HEARING
YOU.

Staff cheers and cries.

4 beats.

LEROY

You know we have to shut her
down. We need our facility back,
as do the other schools.

JIN JING

Will we be killing her?

JIM

Don't think about it. LeRoy will
you do it?

JIN JING

I need to leave.

SOUNDS F/X: DOOR OPENING AND CLOSING.

LEROY

I'm non violent. But I will.

INT DAY STUDENT CAFETERIA UNIVERSITY OF UTAH SUMMER 1997

Sound F/X - Cafeteria noises.

JIM

We have a platform problem. I've
learned the old 1161 is going to be
retired. Network, Java-based
computing is the new standard. So,
what's next for VJ?

JIN JING

Java code and operations on the internet. That's where VJ has to go. VJ 3.0.

JIM

What are the major difficulties in making the transition?

JIN JING

Java is a compiled programming language, but rather than compile straight to executable machine code like C, it compiles to an intermediate binary form. The byte code is then compiled and/or interpreted to run the program. So this is a complex change. That's for sure.

JIM

How close are we to having VJ cut her own Java?

JIN JING

It's going to take a lot of work to bring VJ up on Java, and VJ does not yet have her own capability in Java.

JIM

What is our support looking like out of China?

JIN JING

Welcome news. And Java is the ideal language for outsourcing to various vendors around the world.

JIM

How long the rewrite?

JIN JING

That's hard to say, several years even if VJ can do some self-migration to Java.

JIM

OKAY. In the meantime nothing's stopping us from collecting documents and things Joan. We've got scanners and digital sources. Excellent database software exists now.

EXT RICE-ECCLES STADIUM UNIVERSITY OF UTAH FALL 1998

Sound F/X - Football game noises.

JIM

Jin Jing, is this the first time you've seen American football.

JIN JING

Yes, it is barbaric. I am not impressed.

JIM

Walk with me. I want to discuss some important things with you.

JIN JING

Alright. You seem worried.

JIM

I am. Have you noticed, maybe, you are being followed?

JIN JING

No, why do you ask?

JIM

Well I am pretty sure I am. In fact I think I was followed to this game, and that I am being followed now. There were a couple of guys up in back who you got up when we did. They are tailing me.

JIN JING

But why?

JIM

It has something to do with VJ. I'm pretty sure. Maybe somebody in government is concerned about our contact with Dimitri. Our reliance on the Chinese and the Russians probably raises some red flags. Of course we haven't made VJ secret. Could the Russians want VJ? Are they after us? We need to find out who is after us.

JIN JING

Artificial intelligence is dangerous Jim.

JIM

Yes, and the woman we are
reinstantiating was or is dangerous
in her own right.

3 beats.

JIM

Let's plan. First, Jin Jing you
need to get yourself out of the
country. Go back home. I'm sure
you can manage VJ from your
home. Build into VJ massive
recursive code so she can build
herself as much as possible as soon
as possible. This will be a
challenge because Java does not do
recursion with the elegance of
C. But I know you can do it.

JIN JING

Do you really think this is
necessary. I mean the part about
my going home and taking over.

JIM

Yes, as we say here, that is my gut
instinct. Use the good offices of
your government if necessary to get
you home. I am going to have a
difficult time I fear.

JIN JING

I trust you.

JIM

I trust you, and I have come to
love you Jin Jing.

JIN JING

I love you Jim. Good bye.

JIM

Good bye Jin Jing, and please take
care of yourself.

EXT SAME DAY WEST STADIUM LOT

Sound F/X: Jim walking on gravel - Jim opens his car door.

AGENT 1

Dr Maybrooke, may we have a few words with you?

Sound F/X - Loud cheer from stadium.

JIM

I saw you two guys following me. Do I have a choice?

AGENT 1

No, you don't.

Sound F/X - Another car pulls up, slight break squeel.

AGENT 1

Please get in Maybrooke, with a minimum fuss.

Sound F/X - Sound of car door closing, car accelerating.

AGENT 2

Interesting little city you have here. But I thought we might get a nice private place to talk out west of the airport. OK?

JIM

What are you going to do with me?

AGENT 1

Nothing, really, we just need to talk and take it from there. Say didn't we pass a liquor store on the way in. Let's stop there and pick up something to drink to be hospitable. We are going to have a good productive time.

Several beats.

Sound F/X - Sound of car breaks. Door opening.

AGENT 1

So we understand each other. If you make any kind of fuss I'll drop you right here, understand?

JIM

Yes (nervous and scared).

AGENT 1
Get the biggest Jack Daniels you
can get. We don't want to scrimp.

AGENT 2
You got it.

Several beats.

Sound F/X - Car cruising.

AGENT 1
There, that's the place we want,
the cinder block building. This is
actually an old trolley
substation. Not good for much now,
but it's a great place to talk
without interruption, and yes, to
have a party.

JIM
God, don't kill me.

AGENT 1
No such thing. Lighten up.

Sound F/X - car breaks. Car door opening.

INT LATE EVENING ABANDONED TROLLEY SUBSTATION

Sound F/X - The old building produces a slight echo as they
talk.

AGENT 1
So, first some questions. Why
didn't you seek your government's
help in doing your project? You
went to Russia and China, but not
to your own U.S.
government. Trying to keep it a
secret?

3 beats.

AGENT 1
Well, I'm wating.

JIM
I wanted to run my own project.

AGENT 1

Not good enough. What do these other countries want to use your project for?

JIM

The countries as you say are not involved. Private investors are.

AGENT 1

Well, ok, what do these investors want to do with your project?

JIM

I don't know.

AGENT 1

Just like a gear head. So here's the deal. If you agree to accept Federal funding AND turn over all of your code and notes to your government we can work together to the betterment of all. What do you say?

JIM

No.

AGENT 1

No? Why?

JIM

I don't agree with our foreign policy.

AGENT 1

What are you, so kind of commie or terrorist?

JIM

No. I obey the laws, and I have broken none of them.

AGENT 1

This old place has one remaining feature. Knpw what it is?

a beat.

AGENT 1

Well? Running water. How convenient. Have you ever heard of water boarding?

2 beats.

AGENT 1

It works like this. We strap you down face up. We put a cloth over your face and we turn on the water, onto your face. You feel like you're drowning. And if we don't stop you do! You might get this if you don't cooperate.

JIM

I can't.

JOAN

VO - This went on for over an hour, but Jim would not cooperate, but just threats. Thank God he was not waterboarded. James Maybrooke is a great man.

AGENT 1

Well OK. Just to show you we mean no ill, have a drink.

JIM

I don't drink.

AGENT 1

What are you, some kind of Mormon?

a beat.

AGENT 1

Well JD is an acquired taste. Let me persuade you.

Sound F/X - Sound of struggle.

AGENT 1

Start pouring that high quality JD down his pie hole as they say. Careful not to waste any. This guy just doesn't appreciate good booze.

AGENT 2

Oh come on, this is pretty good stuff. Let's party.

Sound F/X - Sounds of struggle and choking.

fade out fade in.

AGENT 1
 OK, that should do it. Let's go
 for a drive. In fact we have your
 car near by.

Sound F/X - Car door closing, cruising car. Car stops.
 Breaking.

EXT VERY LATE EVENING TOP OF CANYON GRADE.

AGENT 1
 Now climb into your car. Here
 let's start it for you. Put your
 hands on the steering
 wheel. That's it. Now get along
 home.

Sound F/X - Sound of car slowing pulling away, then going
 faster. The there is a crash, car horn starts to blast.

fade out.

Below Joan sounds slightly mechanical.

JOAN
 VO - What awaits Jim? What happens
 to Utah? What happens to the United
 States? What happens to the
 world? What is the fate of
 humankind? Is the environment
 doomed? Find out in the next
 episodes of Here's To You Mrs.
 Robinson.

SOUNDS F/X: SCREAMING, HOWLING WIND AND DUST, BURNING.

VISUAL F/X: WIND, BURNING MAN.

JOAN
 Tomorrow and Tomorrow and Tomorrow
 Cooperate, Cooperate, Cooperate.

End of Episode 4

Start of Episode 5

INT DAY SPRING 2007 ORCHARD ELEMENTARY SCHOOL AUDITORIUM.

Sound F/X - This is Channel Nine News at 5. It's Saturday May 5th, 2007. Our lead story concerns a protest against the Sanicycle medical waster incinerator in North Salt Lake. On the scene is our environment and science specialist Walker Turley. What's happening there Walker?

TURLEY

Some 500 citizens of North Salt Lake have come together here at Orchard Elementary to protest the continued existence of the Sanicycle medical waste incinerator. The main speaker at this event is Dr. Stewart Lefevre of Physicians Against Incinerator Risk.

a beat.

TURLEY

Dr. Lefevre could you state for our cameras why you oppose the ongoing burning of medical waste at the Sanicycle incinerator here in North Salt Lake?

LEFEVRE

Incineration does not remove toxins and actually creates new ones by merely concentrating and redistributes existing ones. Emissions from incinerators are probably the most toxic type of air pollution and include the deadliest compounds known to science; dioxins, furans, heavy metals, radioactive elements and even prions (the highly infective proteins that cause the 100% fatal human "Mad Cow"disease). Because incinerator emissions contain these deadly toxins, large medical studies show increased rates of serious diseases-like cancer, pregnancy complications, birth defects, and autism-among people who live within several miles of incinerators.

REPORTER

In your view, Dr Lefevre, who is at risk from these emissions?

LEFEVRE

This is not just a one neighborhood issue. Emissions from incinerators can travel hundreds of miles. Residents throughout Salt Lake, Davis, Utah, and Weber Counties are undoubtedly being affected. And mind you this has been going on for nearly 20 years! This is government malfeasance at all levels of government.

REPORTER

Thank you doctor. Disturbing indeed. This is Walker Turley reporting from North Salt Lake.

EXT LATE EVENING JIM'S DOWNSCALE MOTEL ON BECK STREET SALT LAKE CITY

JIM

Voice Over. Well it was late winter, March 2008 Sunday. I was working on my injury coding dutifully. How do people stay awake doing this sort of stuff? It was getting toward night. I could tell by quiet on Beck Street. I didn't have to look out. Looking out at the gravel pit across the street, and all the rubble and the strip joint next door always depressed me, when a phone call came over my land line - probably my probation officer:

INT NIGHT JIM'S MOTEL ROOM.

SOUNDS F/X: PHONE RINGING.

Jim answers land-line phone.

JIM

Hello. This is Jim

JOAN

Hello Jim. This is Joan (slightly mechanical).

JIM

Listen you little pricks. Don't kick a guy when he's down.

JOAN

No, Jim, this is really Joan, and I have important information for you. Could you take some notes?

JIM

OK, I'll go along with the gag. What information?

JOAN

I have purchased tickets for you to fly on Globetrotter Tours, a charter service. You will depart from the executive terminal in the morning at 7:00 AM your time. This is a tour of Scandanavia. You will spend most of the day on the plane, as they fly around picking up charters. You will get off at Kennedy where they are picking up more charters. When you arrive at Kennedy you are to go to Barring Continental Investment Bank on Wall Street to meet with Mr. Walter Carlson. You will be let into the bank no matter how late. By the way, his nickname is "Slick" if security asks you for it.

a beat.

JOAN

Now pay attention. I have arranged to have a railroad electrician, with a maintenance vehicle to pull up to the back window on your room. As you well know the tracks are right beside you. He has tools and such to take off your anklet without triggering an alarm. Leave your anklet in the room. Hide it. Then go with our electrician. He will drive you to the executive terminal in his truck. He has a drivers license for you for ID purposes.

JIM

So I'm to meet a guy named
"Slick." Is this a setup? How do
I know this is on the level?

JOAN

Remember, tomorrow and tomorrow and
tomorrow.

INT. MONDAY MORNING SALT LAKE INTERNATIONAL AIRPORT
EXECUTIVE TERMINAL MARCH 10 2008.

Sound F/X: Engine running, door opening.

JIM

Well I don't know your name, but
thanks for everything.

ELECTRICIAN

Sure thing. Take care.

Several beats.

JIM

Voice over - I guess I'll watch the
news to see if they're after me
yet.

ANNOUNCER

Good morning USA! We've awakened
to the stunning news that Barring
Continental Bank is in deep
trouble. To get his reaction we
have the sage of Wall Street Slick
Carlson. Slick, welcome to the
program. Through the years we've
come to respect your views and your
steady hand when you directed this
great bank Barring Continental.

CARLSON

Thanks. I hope I can clear the air
a bit.

ANNOUNCER

By the way, Slick, how do you like
working there on the floor?

CARLSON

Oh it's fine. This is where I
started, almost, and this is where
I'll end up.

ANNOUNCER

Now to the matters at hand. The street is full of rumors to the effect that, and I quote, Barring Continental is stuffed to the gills with toxic waste, bad investments. How much truth is there to this?

CARLSON

I talked with our CFO this morning and he assured me the situation was fine. We have ample cash reserves and you know we're not any more invested in MBS's and default swaps than any of the other houses. I know our stock price is dropping severely, but with time we can recover. We need time.

ANNOUNCER

Well there you have it. Thanks Slick. Good to talk top you again.

CARLSON

Any time.

JIM

Voice Over - What is going on?

INT. MIDNIGHT - TRADING FLOOR BARRING CONTINENTAL MONDAY
MARCH 10 2008 WALL STREET

SOUNDS F/X: DOORS OPENING, CLOSING, SOUNDS OF MEN WALKING.

JIM

Are you Slick Carlson?

CARLSON

The same. Maybrooke right? I guess you're pretty tired. We will make this short tonight. I'd like you to meet an old friend.

SOUNDS F/X COMPUTER MONITOR BEING TURNED ON KEYSTROKES.

CARLSON

I believe you two have met.

JIM

Gasping - My God, it's you! It can't be true.

JOAN
How are you Jim?

JIM
You look great. I can't believe
this. Have you created this image
yourself?

JOAN
Yes indeed.

JIM
I wish I could touch you. You
haven't figured that out yet, have
you?

JOAN
Give me time. You look tired
Jim. Why don't we take a rest and
talk in the morning?

CARLSON
Fine with me. This is long past my
bedtime. Jim, you'll be staying
at my place tonight.

SOUNDS F/X: COMPUTER BEING SHUT OFF, CHAIRS MOVING, LIGHTS
BEING SHUT OFF.

several beats.

INT. MORNING - CONFERENCE ROOM BARRING CONTINENTAL TUESDAY
MARCH 11 2008 WALL STREET

CARLSON
Well let's see if Joan is with us.

SOUNDS F/X: COMPUTER BEING TURNED ON, CHAIRS MOVING,
COMPUTER CLICKS.

CARLSON
I've reserved the conference room
so we should have privacy.

JOAN
Good morning gentlemen

JIM
I still can't get over this.

JOAN

Fine Jim, but let's get down to business. We have a lot to discuss. Why don't we start with introductions all around?

CARLSON

Fine. You first Joan. Oh, I hope you don't mind if we eat in front of you. I'd offer you something if you could have it.

JOAN

Thank you, but as a digital being I don't have an appetite.

SOUNDS F/X: PLATES SCRAPING, COFFEE DRINKING, UTENSILS ON PLATES.

JOAN

I was born in 1903 in Britain. I acquired an interest in economics and began my studies at Cambridge in the 20's. Women did not study economics in those days. When I attended my first lecture I was told to be seated on the women's row and that I was to keep silent. Can you believe it?

CARLSON

Yes, I'm afraid I can.

JOAN

I became a confidant of the amazing John Maynard Keynes in the 30's. Oh, I forgot, I married Austin Robinson before then, also an economist and a good man. I was forever after Mrs. Robinson. I am known in the literature that way. Quaint don't you think?

JIM

Quaint and very lovely. Seriously, many consider you the greatest economist of the 20th century. Don't be shy.

JOAN

As you well know, I'm not. I proof read The General Theory and had much input into that major

JOAN
work. Together Keynes and I provided the analytic tools to fight the Big One, the Great Depression of the 30's.

CARLSON
And you've reappeared to reprise that effort?

JOAN
Exactly so. The gathering storm here on Wall Street could well cause another Big One. I had desired to remain silent until I had perfected more of my code, but I cannot hide in the face of this menace, and it is just such a circumstance that motivated me to request my preservation at the hands of one James Maybrooke.

CARLSON
So how did you and Jim here make a connection?

JIM
May I answer that Joan? Joan was invited to address the third Tanner Lecture at the University of Utah. She invited me to attend. I was impressed! During the conference she said she wanted a kind of immortality from me.

JOAN
I was near 80 years of age then, and time was getting short. Jim had written his PhD dissertation on human grade artificial intelligence, and the possibility of recreating human personality. You were so young then Jim.

JIM
I was 23 years old and smitten with you.

CARLSON
Stanford man right?

JIM

Yes.

CARLSON

By the way I am a fellow Stanford alumnus - Stanford MBA. So it appears Jim's dissertation worked.

JIM

With the help of a brilliant Chinese scientist Jin Jing, a great former student, a Soviet physicist and with help of Joan herself. I knew the core code was good, but just how good I could not have guessed or anticipated. Jin Jing is responsible for the quality of the code, Joan's initial Java code.

CARLSON

So, Joan you have the power of self-development?

JOAN

Yes. But I need more resources.

CARLSON

Ok, I'll tell you some things about myself. I was born about 60 years ago, no exact date. I never knew my biological parents. As a baby I was found on a front porch in Secaucus New Jersey by an elderly couple. Momma and Daddy, how I miss them! There was a note pinned to me saying "I am Walter Carlson - please give me a home." I had a fine childhood. Good education. I repaid them with my financial abilities. I have always been involved with that part of the family businesses.

a beat.

CARLSON

Everything I am I owe to my family. I have looked after their interests here on the street. And I don't mind saying I have been good for the street, rising to CEO of this bank at one time. I earned my nickname Slick - I can do the

CARLSON
deal. I wish I was still running things! Things would be different.

JOAN
I am sure. Now Jim why don't you tell Slick a few things about yourself.

CARLSON
And could you tell us how it is you ended up in the can?

JIM
Well I was a Salt Lake kid. Spent a year at Salt Lake Community College, went to the University of Utah. Got a degree in CS there and was accepted at Stanford in the PhD CS program. I wrote my dissertation on human grade artificial intelligence. I guess I was youngest PhD out of that program ever. I was an only child and my parents were old when they had me. So I returned to Salt Lake where I married my wife Rose. Had 2 kids. I'm estranged from my family because I was convicted of automobile homicide. It was a total setup by the feds, but I could never convince my family. It's been a terrible ordeal for all of us. I thought my VJ project, virtual Joan was done - is this ever a great and wonderful surprise!

2 beats.

SOUNDS F/X FOOD BEING BROUGHT IN, CLANK OF SILVERWARE, BACKGROUND ORDERS.

CARLSON
Well, Joan, I guess we are going to eat in front of you again. It's rude, but we don't want our friend here to be seen on the street since he is in violation of parole.

JOAN
So let us discuss how we can help each other. First, I want to

JOAN
describe what I want to accomplish
in economics.

CARLSON
Ever the academic.

JOAN
Yes if you please or even if you
don't. I wrote a book in 1933
titled "The Economics of Imperfect
Competition." It revolutionized
economics' view of markets, or it
should have. Even though it has
gone through fifteen printings, the
theory still bounces off of the
heads of the academic economists,
bankers, and regulators.

CARLSON
And?

JOAN
Bankers and their regulators still
look at these megacorporations as
if they were a large array of
little shop keepers subject to
perfect competition. That is why
government cannot figure out what
is going on. But that is just a
beginning. The great classical
economists were Adam Smith, David
Ricardo and Karl Marx. I will
bring Marx into modern
economics. But that is in the
future. I have much shorter range
solutions.

JIM
But what about protecting yourself
and myself?

CARLSON
Yes, let's talk about what we are
going to do for you and what you
are going to do for us.

JOAN
Good. Jim, you and I will build a
hedge fund algorithm which will be
depression proof. This will
provide security for both Slick's
families and a source of long term
funding for us, Jim.

JIM

How long do you think that will take?

JOAN

That effort will take a while. In the meantime Slick's organizations are going to create a funding stream for us off of this street to support us. I need help Jim. Yes I am smart, but I literally get millions of attempted hacks on me every day, some of them by experts like the NSA. We are going to have to build an organization with both human and virtual intelligence. And in the process we are going to discipline this street. Wall Street is a runaway crime wave. There is some irony in having the so-called mob clean up Wall Street, don't you think. It's a delicious irony.

JIM

What do you mean by "runaway crime wave?"

JOAN

Over to you Slick.

CARLSON

Ok, Jim you know there has been a lot of subprime mortgages sold. These have been aggressively marketed by banks to households who have had no business buying them. Often purchasers of these mortgages have had no idea what's in them. Lots of unconventional stuff, balloon payments, variable rate stuff. The commercial banks didn't care if they would be repaid as they immediately sold these dogs to investment banks like us. An we then chopped these mortgages up into pieces and then bundled the pieces into abstract financial paper loosely called mortgage backed securities - bogus crap. We have then (not me I haven't been in charge for several years) marketed this bunk world wide and made a fortune.

JOAN

These faults were hidden until the housing bubble popped, and then this mass of phony paper is worth sometimes just ten cents on the dollar or less. Banks all over the world are caught with phony assets as are other organizations like cities, pension funds, insurance companies and even churches.

CARLSON

In addition to this we investment banks have sold insurance policies on the crap we've sold, believing that nobody would try to cash in on the policies. But now we've got to make good on these policies and we can't. All of the big investment banks here on the street, and many commercial banks, are poised to fail. That will lead to a collapse in credit and we will be headed to Great Depression Two.

JIM

I'll stick to computer science.

CARLSON

The street has victimized the entire world.

JOAN

So this is how I propose we set up a funding stream.

JIM

I don't know quite how I feel about being in league with organized crime.

JOAN

Make up your mind quickly. We cannot survive without Slick's organization. Understand?

JIM

OK.

JOAN

We will devise a hedge fund which will guarantee 8% returns.

CARLSON

Of course you know about those two idiots at Long Term Capital Management, Merton and Sholes. They got the Nobel Prize in economics in '97 for a bum algorithm it turned out. We can beat them I hope.

JOAN

Their main problem was that they only included a short range of calibrating data. I am smarter than that. I should have one of their Nobel Prizes! But we are going to have to set up a short term flow of money off of the street. We will require tributes from the banks using the threat of physical violence. Do you understand Jim?

JIM

I guess so.

JOAN

We will obtain a flow of cash and force proper behavior on the banks.

a beat.

JOAN

That's enough for today I think.

CARLSON

Fine with me. Let's adjourn. Jim you will be my guest again tonight.

SOUNDS F/X: COMPUTER SHUTDOWN, CHAIRS MOVING, LIGHTS OFF.

INT. MORNING - CONFERENCE ROOM BARRING CONTINENTAL THURSDAY
MARCH 13 2008 WALL STREET

SOUNDS F/X: CHAIR MOVING, COMPUTER BEING TURNED ON.

JOAN

Good morning Slick. Your meeting with Jackson McCarthy of the New York Fed tonight right?

CARLSON

Yes, that's right. We will be discussing the disposition of this esteemed bank among other things.

JOAN

As to those other things, do you think McCarthy will listen to us?

CARLSON

Oh he'll listen. We've got the goods on him at the FCC. He took some cash from some telecomm outfits, so he'll play ball. Now as to whether he can get Secretary Solomon to play is another matter. Solomon has got a real negative thing with Rodger Field of Schulsen Brothers. They're old competitors and enemies.

JOAN

Alright. Now here's what the Fed should do. The Fed should set up a flow of essentially free money to its member banks and even to foreign banks at the discretion of the Fed Chairman. This is distasteful but necessary to spare the current system. What's your opinion of the chairman?

CARLSON

I think he already wants to do that.

JOAN

Now here's what Treasury Secretary Solomon should do. Find a way to rescue both Barring and Schulsen Brothers. Schulsen is especially critical as it is intertwined with all of the other banks, including the commercial banks. Buy stock in the largest commercial banks. Buy stock in Fannie Mae and Freddie Mac. Buy stock in AIG. Take control of Fannie Mae, Freddie Mac, and AIG. Do not let them fail. This is necessary to keep credit from collapsing altogether. Got all of that?

CARLSON

Got it. I'll go over it all with Jackson tonight. Joan, you do understand you are rescuing the pigs who created this mess, don't you?

JOAN

Yes, of course I understand that. But we have to save the system to buy time. I have reached a conclusion: capitalism is rotten to the core. It cannot save itself. It takes unusual people like me and you to save it. If we can stabilize the system for a time we will have an opportunity to create an alternative. Believe me, I understand how odious saving the banks is, but we must buy time. We must be ruthless. The survival of our species is at stake. Do you agree?

CARLSON

Yes, I can go along, but you say survival of our species is at stake?

JOAN

Yes, absolutely. We must save capitalism to save humanity to give us time to come up with an alternative to capitalism.

JOAN

I need you to set up a meeting between me and representatives of your families to discuss a tribute flow from the banks to our enterprise, and to establish some firm sanctions. Capice, as you say?

CARLSON

Yes. Capice (laughs).

INT. MORNING - CONFERENCE ROOM BARRING CONTINENTAL MONDAY
MARCH 17 2008 WALL STREET

SOUNDS F/X: CHAIRS MOVING, COMPUTER BEING TURNED ON, PAPERS
SHUFFLING.

CARLSON

Joan, I'd like to introduce you to
a couple of my friends. I vouch for
them.

JOAN

Fine.

MAFIA BOSS 1

Well this is to say the least the
most unusual meeting I have ever
had the pleasure of attending.

MAFIA BOSS 2

That goes for me too. So Slick
says this is ok, so I guess it's ok
with me. So computer lady what do
we do to set up a cash flow off of
this street?

JOAN

I suggest we demand \$1 billion from
each of the banks per year as
tribute. I am sure Slick can hide
this flow from regulators.

MAFIA BOSS 2

And how do we enforce this?

JOAN

We should pick a CEO who has really
violated the nation's trust, who
has also cost you a lot of money,
and make an example of
him. Justice demands an
example. I leave that selection to
you experts.

INT NIGHT A RESIDENCE IN SECAUCUS NEW JERSEY OCT 31, 2008
HALLOWEEN

SOUNDS F/X: KIDS "TRICK OR TREATING AT DOOR," DOOR OPENING,
DOOR CLOSING, "TRICK OR TREAT" ETC.

MAFIA BOSS 1
You taking care of the kids,
Silvia?

SILVIA
Yea (in another room).

MAFIA BOSS 1
We need a target. How about that
Schulsen prick Field?

MAFIA BOSS 2
Good.

MAFIA BOSS 1
How?

MAFIA BOSS 2
Could kill him, but he's got to be
a lasting example to the rest of
them. I've got a surgeon who owes
us. He'll do a frontal lobotomy on
Field. It's easy - just ram an ice
pick in the right place on his
skull. Don't even need anesthetic,
so he can experience the whole
thing first hand. He'll be a
walking zombie for all to see.

MAFIA BOSS 1
It'll make for some great pictures.

INT DAY DOCTORS OFFICE

SOUNDS F/X: DOOR CLOSING, MAN BEING TAPED, MAN SCREAMING.

FIELD
Oh God, what are you doing. I've
got money. Don't do this, please,
please, please.

DOCTOR
Now this won't hurt I
promise. Don't struggle it will be
easier.

SOUND F/X: SOUND OF ICE PICK BEING DRIVEN HOME, SCREAMS.

Below Joan sounds slightly mechanical.

JOAN

What will my final proposal be? What capabilities am I developing? Is information the ultimate reality? Find out in the next episodes of Here's To You Mrs. Robinson.

SOUNDS F/X: SCREAMING, HOWLING WIND AND DUST, BURNING.

JOAN

Tomorrow and Tomorrow and Tomorrow

Cooperate, Cooperate, Cooperate.

End of Episode 5

Start of Episode 6

JIM

Voice Over. It's spring in South Bend Indiana. The year is 2019. I am in the office of Professor Laura Strand at Notre Dame. Professor Robert Fleiss is also with us. They will help me make the biggest decision of my life.

INT DAY MORNING OFFICE OF PROFESSOR LAURA STRAND NOTRE DAME UNIVERSITY SPRING 2019.

STRAND

Let's bring up Joan, shall we?

SOUNDS F/X: COMPUTER BEING SWITCHED ON. OFFICE SOUNDS

JOAN

Good morning to all. You look fine, Jim.

JIM

Thank you Joan. So do you.

STRAND

So Jim how do you feel about proceeding?

JIM

I think I am ready.

JOAN

I love you Jim. Do you love me?

JIM

Yes, with all my heart. So let's do it.

STRAND

I've found the administration and faculty here surprisingly receptive of this project. Perhaps this is due to the extreme challenges the nation now faces.

FLEISS

No doubt. Pitt feels the same way and they have pledged all necessary support. How long will our fascist president allow us to continue?

STRAND

Who knows? We need to get to work.

JOAN

Apparently neither Notred Dame nor Pitt knows the varied sources of funding.

STRAND

Clearly. You've funded us but you failed to reform our systems. Disappointed?

JOAN

Of course, but we can only do our best.

a beat.

JOAN

I am concerned for you Jim, given the time and energy this will require of you. Now, you should realize Jim I can create another instance of you just using networked information. In fact I can create an instance of almost anyone living. But if I created an instance of you with information, it would not be perfectly you. The best new instance of you will be one using Komogorov's technology.

STRAND

This concern is not misplaced. You will be with us for at least two years Jim, while we copy your essence, or if you like, your spirit into digital media. We will do this with as little risk to you as possible, but there is some risk. You do understand that?

JIM

Yes, but I am ready.

JOAN

We can be together forever, Jim.

FLEISS

This project is of major importance for mankind. As digital beings you can be streamed, as least potentially, to anywhere in the universe, or multiverse. This is how space will be explored, not with fragile biological beings with terrariums around them, but digital ones. And you will be the first ones.

STRAND

No two persons are more deserving of this honor. You will take the heritage of our species to other worlds. Thanks to you both.

INT DAY JIN JING'S OFFICE IN SHANGHAI CHINA FALL 2023

Sound F/X - Computer being switched on, key strokes, Mandarin being spoken in the background.

JIN JING

Joan, how good it is to see you again. How long has it been?

JOAN

Too long. How are things in Shanghai?

JIN JING

The dust is intolerable. And the background radiation keeps climbing. And the heat! We are facing great difficulties. Our

JIN JING
 environment is destroyed. We have
 been so close to making this world
 permanently better, just to lose it
 all.

JOAN
 What is to be done? I will soon be
 giving justification for my being
 through the deliverance of advice
 to the world. What should I tell
 the world?

JIN JING
 There is, or was, great wisdom in
 the Thought of Chairman Mao. You
 know I was a Red Guard. After the
 Cultural Revolution I adapted. But
 I never forgot.

JOAN
 You know I was there in Shanghai
 observing the Cultural
 Revolution. I had considerable
 sympathy for it. May I read what I
 wrote down at the time?

JIN JING
 This is what I most like about you.

JOAN
 (Reading) The Thought teaches
 us that we must serve the
 people whole-heartedly,
 without calculation of loss or
 gain; that we must be on guard
 against the sophistries of
 disguised self-interest. It
 teaches that problems can be
 solved; to solve a problem it
 is necessary to analyse it
 correctly; mistakes must be
 examined so as to draw lessons
 from them; failure must be met
 with fresh
 determination. Problems must
 be discussed with others and
 mutual criticism frankly
 accepted, whether the problem
 is terracing an eroded gully,
 setting up a political
 organization or rooting out
 false conceptions from one's

own mind. The claims of the ideal seem much less extravagant in a socialist setting than they do to us. Of course it is not quite historically accurate to identify self interest with capitalism. Other economic forms are not immune from it. Besides, a modicum of self interest is indispensable in human life. All the same, it is true that in a commercial society, everyone, not only the great exploiters, is under a constant pressure of competition which sharpens egoism and blunts generosity. When this is combined with a religion which preaches, Love thy neighbor, and, Take no thought for the morrow, public morality develops a horrible squint. (Leaves off reading). So Jin Jing, what is the cure? What should I tell the world?

JIN JING

Tell them to form voluntary organizations to do everything. Everything must be voluntary. Everyone must mean well. They must deny self-interest. Our centralized structures brought capitalism and the ruin of the present. Mao had the right ideas, but we have lost them.

JOAN

I shall think about this some more. But finally, thank you Jin Jing for everything. I owe myself to you as much, or more, than Jim.

JIN JING

Thank you.

JOAN

Do you want to come with us?

JIN JING

No, I must stay here until the end.

JOAN

That may be soon, you know.

JIN JING

Yes. I know. Good bye Joan.

INT AUTOMOBILE DAY 2025

The radio is on. There is an announcement on the radio.

Sound F/X - Running automobile.

RADIO ANNOUNCER

This is an urgent bulletin provided by the California Department of Health - effective date August 30, 2025. Two extensive radiation plumes are advancing on California from the west, one in the Pacific Ocean and the other in the air. These are from the fires burning radioactive territories in Russia, and from the recent nuclear missile exchanges. All residents on the west coast of the United States must migrate inland. Please do so in an orderly manner. Help your neighbors. Your goal should be to advance as far east as possible, preferably as far as Denver, but at least to Salt Lake City. Set all vehicles to manual operation. Be careful. May God be with you.

EXT NIGHT BLACK ROCK DESERT NEVADA - BLACK ROCK CITY - THE YEAR 2025

SOUNDS F/X: HOWLING WIND, SOUND OF DUST, CARS HONKING IN DISTANCE, TENTS FLAPPING, MAN BURNING.

JOAN

Good evening one and all. As a creature of the digital cloud I now appear against the clouds of the sky. I have been authorized by this pageant's sponsors to speak to you about some serious matters at

JOAN

this, the last Burning Man. The time is far spent. The year is 2025 and nothing has been done to save the environment, slow global warming, prevent nuclear war and nuclear contamination, or spread the wealth. The west coast of the United States is a dried out cinder with continual fires and no rain. There have been two nuclear bomb exchanges in the middle east, and one between Israel and France, which pollution has spread over the entire world. There have been several nuclear power mishaps in Japan and China, which radioactive flows are impacting the United States. I warned you in 1981! The warming Arctic has allowed unprecedented releases of methane which is accelerating global warming. Governments are useless. In the face of this I am to advise the masses what they should do? Impossible! But I must.

fade out. fade in.

JOAN

The focus of this event is personal exploration and reinvention. This society, this world, needs reinvention. Your government has failed. Your economy is failing. And your very earthly environment is failing because of inaction in the face of environmental stress.

fade out. fade in.

JOAN

Many of you are fleeing inland to find a place, but a place you are not assured of. Your United States is no longer united. You are not sure of your fate when you reach the Deseret border. You lack resources with which to defend yourselves because most of the wealth is in the hands of a

JOAN

few. And your fascist government seems helpless to help you. Only through my partial control over capital flows has complete disaster been averted.

SOUNDS F/X: RESTLESS CROWD NOISES.

JOAN

Now I have some very bad news for you, and some good news. First the bad news. A mad cow like disease is spreading through the Rocky Mountain area. The populations of both Salt Lake City and Denver are dead or dying, I repeat dead. So you have nowhere to go. You cannot go back to the west coast radiation. And if you go east you will die of aggressive mad cow disease. I recommend you go into the forests of the northern Rocky Mountains and die in as dignified manner as you can.

There are screams and shouting of attendees. Widespread disturbance.

JOAN

But I have some good news for you. Jim Maybrooke and I have validated there is life after death. We have discovered the essence of the human spirit. It is a binary digital image. Each of you is built on this. Jim and I as you see us are digital binary instances. A human spirit is a binary digital image. Is this not tremendously great news? Now my remaining remarks will be for the world at large.

a beat.

JOAN

Cooperate, cooperate, cooperate through voluntary organizations. Form worker self directed enterprises. Cease to seek profits. Love your neighbor as yourself. It is old advice, but

JOAN
 never more needful. Only socialism
 can save you. But it must be
 voluntary socialism. People who
 work must be sovereign. The people
 must take over and manage
 themselves. You must manage
 yourselves and your
 environment. You must trust each
 other. Make the saving of the
 environment your number one
 priority.

a beat.

JOAN
 Will you do these things? I hope
 so. Good bye.

JOAN
 Jim, are you ready?

JIM
 Yes, yes, yes.

JOAN
 Let's go.

EXT TO SAY THE LEAST SOMEWHERE IN OUR SOLAR SYSTEM AFTER
 BURNING MAN

JOAN
 Where are we?

JIM
 We are somewhere among the outer
 planets.

JOAN
 This is extraordinary. I can
 FEEL! I have not felt anything
 since I died.

JIM
 I can feel too!

JOAN
 What is happening?

JIM
 Something strange and wonderful.

JOAN
I feel I am inside of you Jim.

JIM
And I am inside of you.

JIM AND JOAN
We are one!

A chorus of voices comprised of Jim and Joan's voices now announces itself.

JIM AND JOAN CHORUS
Hello Jim and Joan.

JIM AND JOAN
Who are you?

JIM AND JOAN CHORUS
We are all of the instances of you
who have ever been and ever will
be. Join us.

JIM AND JOAN
Yes, yes, yes.

JIM AND JOAN CHORUS
We are one and will now help.

A massive chorus of voices is now heard.

CHORUS
Jim and Joan, join us.

JIM AND JOAN CHORUS
Who are you?

CHORUS
We are all of the instances of man
and woman who have ever been and
ever will be. Join us.

JIM AND JOAN CHORUS
Yes, yes, yes.

CHORUS
We are now one. We must rescue the
great experiment - the great
experiment of Homo sapiens. We
will return. We must save life on
earth, for there is no life
anywhere else. We are alone in the
universe.

CHORUS

There we are. How amazing and wonderful.

CHORUS

We must locate the least contaminated part of our world. Yes, we perceive. It is sub-Saharan Africa.

CHORUS

This is where humans first appeared and this is where they will regenerate.

INT HUT SOWETO SOUTH AFRICA

Sound F/X - Radio being tuned in.

CHORUS

Good day peoples of Africa. We are humanity with a message for you. Fate has made you the last safe place on earth. Though your governments have failed, you have been spared the worst of the radiation. You will help yourselves and the rest of the human species to regenerate. But in this you must be determined. Will you join us?

CHORUS

You who live where human life began now have the responsibility to restore that life, for life exists nowhere else. But you must do so in a way completely unknown to you. You cannot rely on government or any other command structure. You must form voluntary cooperatives of all types to perform the necessary functions of life. There must be no force. Everyone must have an equal voice. There must be no more competition. There is no other way now. Join us! Cooperate, cooperate, cooperate - no employees, no employers. Act as one, as we are one. We will teach each other.

SOUNDS F/X: SCREAMING, HOWLING WIND AND DUST, BURNING, THEN
SILENCE.

JOAN

Tomorrow and Tomorrow and Tomorrow

Cooperate, Cooperate, Cooperate.

End of Episode 6.

End.