

XEROX PARC (Act I)

Music & Lyrics by Terry Crystal

Book by Terry Crystal & Don DiVecchio

c. 2018/2019/2020

## Cast (13 with doubles and triples, or more without)

### MANAGEMENT

Jack (Goldman) – VP Research, Xerox Corporation, Tenor

Peter (McColough)\* – President Xerox Corporation, Tenor (triples as Steve Jobs and secretary)

George (Pake) Director, Xerox PARC, Baritone

Gloria (Warner)\* - George's secretary, Alto (triples as Diana Merry and Jack's wife Judy)

### COMPUTER SCIENCE LABORATORY

Bob (Taylor) – Associate Manager, Computer Science Lab, Bari/Tenor

Butler (Lampson) – Tenor

Chuck (Thacker) – Bass/Baritone

### LEARNING RESEARCH GROUP

Alan (Kay) – Tenor

Adele (Goldberg)\* – Mezzo (doubles as secretary)

Dan (Ingalls) -

Diana (Merry) \* - Alto (Triples as Gloria Warner and Jack's wife Judy)

Scientists #1, #2, #3; Larry Tesler, Ted Kaehler, Chris Jeffers

### OTHER

Judy (Goldman)\* - Jack's wife, Alto (triples as Gloria Warner and Diana Merry)

Steve Jobs\* - Tenor, (triples as Peter McColough and secretary)

Two secretaries\* - (double or triple)

## Scene 1 (ARCHITECTURE OF INFORMATION)

Instrumental (IT'S GONNA HAPPEN). Lights go up/curtain opens. Jack stands downstage, facing audience and smoking cigar. He is looking, introspectively, out window at snow falling outside. Peter enters, stage right.

PETER

(enthusiastically)

Hey Jack.

(walks to window where Jack is standing)

JACK

Does it ever stop snowing here?

PETER

We're used to it...But didn't you live near Detroit? - you should be used to this kind of weather.

JACK

Not like this...I've been here several months, and it's snowed every single day. OK. I'm exaggerating - but it feels like every day I get up, there's more snow to shovel...I'm committed to our work here. But it's hard. I miss my kids. Who in their right mind is going to join me in Rochester New York!

PETER

(puts hand on Jack's shoulder)

Don't worry Jack. There are changes in the works that I can't talk about. But I think you'll be pleased...I don't want to lose you after everything we've done to get you here.

JACK

(gestures at chair)

Have a seat

(Jack sits behind desk, and extinguishes cigar in ashtray. Peter sits across from him.)

JACK

Look...I appreciate everything you've done. Being vice president of research and development is a big deal. Having a seat at the table...I didn't have that at Ford. It's one of the reasons I took the job.

PETER

And I'm glad you did. We need someone at the head of R&D to guide us into the next century. Xerox has been incredibly successful at making one product - our copiers are in almost every office in America, but, as you know, our patent runs out in a few years and we lose our competitive edge. I liked your idea about creating a lab that provides research for our new computer acquisition, while exploring new opportunities to create the office systems of the future.

JACK

You read my memo.

PETER

Loved it!..As the only copier company in America, we are perfectly positioned to take advantage of new digital technologies and become a full-fledged "information management" company.

JACK

(paces and speaks rapidly)

My thoughts exactly!...I hope you agree that we need to build the new lab in a different location - maintain the Webster lab for advances in copiers - the new lab will focus on general scientific research, with a focus on computers.

PETER

Terrific!

JACK

(paces and speaks rapidly)

We want to attract the best scientists, so we need to build near a major University - hopefully on one of the coasts. Our lab will be number one in the nation!

PETER

I like the way you're thinking. Just put the details on paper, and have it ready for me in a week... With this new lab, it'll be our mission to bring order to the "Architecture of Information"!

Peter and Jack sing **(ARCHITECTURE OF INFORMATION)**

Peter:

WE ARE FIRST AT WHAT WE'RE DOING  
AND THE ONLY ONES TO DO IT, FOR A LONG TIME  
WITH OUR MONOPOLY ON COPIERS  
OUR COMPANY IS NUMBER ONE

WE'VE GOT QUITE A STASH  
BUT WHAT GOOD IS CASH  
IF WE DON'T KEEP UP, THEN WE'RE THROUGH

WE COULD COAST ALONG FOREVER  
DOING EVERYTHING THE SAME TILL SUNDOWN  
BUT TECHNOLOGY IS CHANGING  
AND THE COMPANY IT MUST CHANGE TOO

ON TOP OF OUR GAME  
IT WON'T STAY THE SAME  
AND THAT'S WHY WE HIRED YOU

Peter & Jack:

THE ARCHITECTURE OF INFORMATION  
WE'RE NOT QUITE SURE WHAT IT IS  
THE ARCHITECTURE OF INFORMATION  
TO STAY ON TOP OF THE BIZ

Jack:

LET THE FUTURE HERE UNFOLD

Peter:

IT'S OUR BUSINESS TO BE BOLD

Jack:

YOU DO UNDERSTAND IT TAKES TIME  
GREAT IDEAS DO NOT TURN ON A DIME  
AT LEAST FIVE YEARS TILL YOU SEE A RETURN

Peter:

ON THAT WE BOTH FEEL FINE

Jack:

WE'D NEED A SEPARATE CAMPUS  
FAR AWAY FROM THE ONE YOU HAVE HERE

Peter:  
ANYTHING YOU WANT  
LET ME KNOW WHEN YOU WANT IT  
AND THEN WE'LL GO FROM THERE

Peter & Jack:  
THE ARCHITECTURE OF INFORMATION  
WE'RE NOT QUITE SURE WHAT IT IS  
THE ARCHITECTURE OF INFORMATION  
TO STAY ON TOP OF THE BIZ

Jack:  
WE'LL BE FIRST TO REACH THE TOP

Peter:  
TOWARD OUR GOAL WE'LL NEVER STOP

Peter & Jack:  
WE ARE BUILDING THE OFFICE OF THE FUTURE  
WITH COMPUTER TECHNOLOGY.

Curtain closes/Lights go down.

## Scene 2 (CREATING THE SPACE)

Lights go up.

In front of curtain. George sorts paperwork at desk in his Washington University (St. Louis) office, stage left. Knock on door. Enter Jack, stage right.

GEORGE

Good to see you Jack.

JACK

(they shake hands)

So glad you decided to take the job.

GEORGE

Have to admit, I was a little reluctant. You know Ford offered me your old job, and I turned them down - but the meeting with Peter was amazing.

JACK

Did I tell you?

GEORGE

He has a genuine vision for the company, AND understands the importance of basic research.

JACK

It doesn't hurt that Xerox has a shit-load of money...I'm glad you had a chance to meet.

GEORGE

We also met with Joe Wilson, the president of the company. Very impressive. I'm glad you came to me with the job. I love teaching, but things on campus are getting hairy, with the anti-war protests...

JACK

No need to explain. You're the first person I thought of.

GEORGE

How long has it been?

JACK

Since we worked together?...I think I had hair then.

GEORGE

Still organizing the poker games?

JACK

(laughs)

And winning every one...Getting down to business. We need to talk about the best location for the lab.

GEORGE

I was thinking somewhere on the West Coast - maybe Palo Alto near Stanford University. I taught there for several years before coming to St. Louis...

JACK

I was thinking East coast - near Xerox Headquarters. I'm so glad Xerox moved its headquarters to Connecticut...Having the lab nearby...

GEORGE

I can see how you'd feel that way, but, hear me out.

JACK

Of course...You're the new head of the lab.

GEORGE

Thanks Jack. Because building the lab in the bay area, would be the best way to attract talented people...When I was teaching at the University, there were a lot of forward thinking people doing computer research. Stanford is very open to outside industry, and with my connections, they could be helpful.

JACK

I have to admit being partial to having the lab near headquarters...If we locate the lab too far, it might be hard to translate research into product.

GEORGE

I see your concern, but Palo Alto is not that far from El Segundo, where SDS is located.

JACK

Don't get me started on SDS. If Peter wanted to purchase a computer company, you would think he would have consulted me first...Oh hell. Without a computer company, Xerox may not have come up with the money for the new lab. So maybe it was fortuitous.



GEORGE

If the lab were near Stanford, you could get on a plane, and be there for lunch.

JACK

I'm convinced!

GEORGE

Thanks Jack!

JACK

We have to think of a name.

(beat)

How about The Academy of Scientific Study

GEORGE

A.S.S.....I don't know.

JACK

You're right.

GEORGE

How about Xerox PARC...Palo Alto Research Center?

JACK

Xerox PARC...I like it!

(beat)

GEORGE

The first thing I want to do is visit the top Universities - talk to everyone who is anyone in computers, and find out who the best people are, in the field.

JACK

Great idea! The best and the brightest! We want our lab to be the place all the smart people want to come. Locating on the West Coast is a great first start, but we want to create a special environment...A place that encourages creative thought...

### **CREATING THE SPACE** (Jack & George Sing)

Jack

A PLACE UNIQUE AND SINGULAR

WHERE PEOPLE WANT TO BE

A PLACE UNIQUE AND SINGULAR

WHERE CREATIVITY ROAMS FREE

JACK  
CREATING THE SPACE

George  
CREATING THE ENVIRONMENT

Jack  
CREATING THE PLACE THEY WILL COME  
(beat, beat...)  
CREATING THE SPACE

George  
CREATING THE ENVIRONMENT

Jack  
A PLACE THAT IS SECOND TO NONE  
(beat, beat...)  
WE WILL HIRE THE BEST AND THE BRIGHTEST  
THE TOPS OF THEIR FIELD WE'LL ATTRACT

George  
WE WILL FILL OUR RANKS WITH PHD'S

Jack  
OUR LAB, IT WILL NOT BE SURPASSED  
(beat, beat...)  
CREATING THE SPACE

George  
CREATING THE ENVIRONMENT

Jack  
A PLACE WHERE GREAT WORK WILL GET DONE  
(beat, beat...)  
CREATING THE SPACE

George  
CREATING THE ENVIRONMENT

Jack  
A PLACE THAT WILL BE NUMBER ONE  
(beat, beat...)  
WE WILL OFFER A GOOD COMPENSATION  
OUR PAY ON PAR WITH THE BEST

George  
A HEALTHY BUDGET AND A LAB TO CREATE

Jack  
 THEIR OWN PROJECTS IN WHICH WE'LL INVEST  
 - WE ARE BLESSED

Jack and George open curtain, where scientists/ensemble are working away in Xerox PARC offices. Ensemble joins singing and provides backbeat (production number).

Scientist/ensemble:  
 WE ARE BLESSED  
 WE ARE BLESSED  
 WE ARE DEFINATELY BLESSED

JACK  
 CREATING THE SPACE

George  
 CREATING THE ENVIRONMENT

Jack  
 A PLACE WHERE OUR WORKERS HAVE FUN

JACK  
 CREATING THE SPACE

George  
 CREATING THE ENVIRONMENT

Jack  
 THE BEST WORKPLACE UNDER THE SUN  
 (beat, beat...)  
 WE WILL HAVE AN OPEN ENVIRONMENT  
 PEOPLE COME AND GO AS THEY PLEASE

George  
 STAY ALL NIGHT IF THEY WANT  
 TAKE A FEW DAYS OFF

Jack  
 THINK OF ALL THE GREAT THOUGHTS WE'LL UNLEASH

George  
 WE'LL HAVE SYMPOSIUMS, COLLOQUIUMS, SUFFER NO OPPROBRIUM

Jack  
 SPEAKERS, SEEKERS, EVERYONE IN SNEAKERS

George  
YEARNING, LEARNING, ALL THE WHEELS ARE TURNING

Jack  
FRIVOLITY AND GAIETY

George  
LOTS OF ELECTRICITY

Jack  
CASUAL FORMALITY

George  
CREATING NEW REALITY

Jack  
CREATING THE SPACE

George  
CREATING THE ENVIRONMENT

Jack  
CREATING A PLACE TO FEEL WHOLE  
(beat, beat...)  
CREATING THE SPACE

George  
CREATING THE ENVIRONMENT

Jack  
WHERE NEW THOUGHTS CAN FLOURISH

George  
IDEAS, WE WILL NOURISH

Jack & George  
XEROX PARC

Jack, George, & Ensemble  
IN THIS PLACE WE CALL HOME!

Lights go out. Sound of typing. Spot on Gloria typing on new IBM Selectric typewriter.

## Scene 3 (INTERGALACTIC COMPUTER NETWORK)

Two secretaries join Gloria as she types on new IBM Selectric. Gloria shows them new typewriter. Bob Taylor walks by.

TAYLOR

Good morning ladies...Couldn't help over-hearing...What've we got here.

GLORIA

The new IBM Selectric. George just bought it for me...See here (takes out golf ball head)...The whole alphabet is on this one little golf-ball, I put it in the typewriter, and boom, start typing.

(Secretaries ooh and ah.)

TAYLOR

Let me see that. (takes golf ball, looks, and hands it back to Gloria). This little machine is nothing compared to the technology we are working on at PARC...Hard to imagine, but this here typewriter will become obsolete, when our desk top computers hit the market.

Taylor sings (**INTERGALACTIC COMPUTER NETWORK, in the style of Hank Williams**)

LISTEN UP LADIES

I'M HERE TO SAY

YOU AIN'T SEEN NOTHING YET

CAUSE THERE'S SOMETHING COMING DOWN THE PIKE THAT'LL CHANGE YOUR MIND, I'LL BET

IT'S A NEW COMPUTER TECHNOLOGY

WE ARE WORKING ON IT HERE

JUST YOU WAIT AND SEE

THE SWEETEST LITTLE THING, YOU'VE EVER MET

THE INTERGALACTIC COMPUTER NETWORK

GUARANTEED TO IMPROVE YOUR NET-WORTH

IT WILL GIVE YOU EVERYTHING YOU NEED

ANY KIND OF INFORMATION

IF YOU NEED A NEW CONNECTION

IT WILL HOOK YOU UP, OH YES INDEED

THERE WAS A MAN NAMED VANEVER BUSH

A CLEVER MAN, AND INSPIRATION

TEACHING SICENCE OVER AT MIT

THE MACHINE HE TALKED AND WROTE ABOUT  
WE'RE ABOUT TO ROLL IT OUT  
YOU'LL BE BLOWN AWAY  
JUST WAIT AND SEE

NOW THIS SAME MAN, HE UNDERSTOOD  
IF YOU DON'T HAVE MONEY, YOU DON'T HAVE NOTHING  
RESEARCH, IT NEEDS FUNDING TO SURVIVE  
SAW THAT THERE WERE SYNERGIES  
GOVERNMENT, INDUSTRY, ACADEMY,  
WORKING HAND IN HAND SO THEY COULD THRIVE

NOW YOU CAN DREAM, DREAM, DREAM, ALL YOU WANT TO  
BUT IF YOU DON'T HAVE THE DOUGH, ITS HARD TO SEE THINGS THOUGH  
WELL YOU CAN DREAM, DREAM, DREAM, ALL YOU WANT TO  
I'M HERE TO HELP YOU MAKE YOUR DREAMS COME TRUE

NOW TAKING OFF UP, WHERE BUSH LEFT OFF  
THERE WAS A MAN NAMED JOHN LICKLIDER  
HAD A VISION SHARED BY JUST A FEW  
A NETWORK HE SAID WOULD CONNECT  
A COMPUTER ON EVERY DESK  
WHAT YOU DO WITH IT, IS UP TO YOU

THE INTERGALACTIC COMPUTER NETWORK  
GUARANTEED TO IMPROVE YOUR NET-WORTH  
IT WILL GIVE YOU EVERYTHING YOU NEED  
ANY KIND OF INFORMATION  
IF YOU NEED A NEW CONNECTION  
IT WILL HOOK YOU UP, OH YES INDEED

NOW LICK AS HE WAS ALSO KNOWN  
GOT A JOB WITH THE PENTAGON  
FUNDING ALL THE PROJECTS THAT HE MIGHT  
MAN-COMPUTER SYMBIOSIS  
WHEN I CAME ON BOARD, THAT WAS OUR FOCUS  
FUNDING ALL THE RESEARCH THAT WE LIKED

SO, AS YOU SIT HERE RAVING ON THIS MACHINE  
A NEW TECHNOLOGY YOU HAVEN'T SEEN  
WILL SOON REPLACE WHAT YOU'RE SEEING HERE TODAY  
THIS NEW TOY WILL BE OBSOLETE  
WHAT WE'RE DOING HERE WILL BE QUITE A FEAT  
REMEMBER WHEN YOU SEE IT, YOU HEARD ME SAY

THE INTERGALACTIC COMPUTER NETWORK  
GUARANTEED TO IMPROVE YOUR NET-WORTH  
IT WILL GIVE YOU EVERYTHING YOU NEED  
ANY KIND OF INFORMATION  
IF YOU NEED A NEW CONNECTION  
IT WILL HOOK YOU UP, OH YES INDEED

Taylor nods goodbye and exits.

SECRETARY #1:  
Who was that man?

GLORIA:  
That's Bob Taylor...Worked at ARPA giving out money.

SECRETARY:  
ARPA?

GLORIA:  
The civilian wing of the military.

SECRETARY:  
Didn't know the government was giving out money.

GLORIA:  
Taylor was in charge of funding projects...Knows everyone in computer science.

SECRETARY:  
Sounds like a dream job...Why would he leave?

GLORIA:  
The Friggin War...Bob went to Vietnam and saw what was going on. Didn't want any part of it...Then George offered him a job to recruit all the people he funded and bring them over here...Anyone he thought had something to contribute.

SECRETARY #2:  
What a charmer.

SECRETARY #1: A little full of himself, I'd say.

GLORIA:  
May be...But he knows what he's talking about.

SECRETARY #2:  
Wouldn't that be something.

SECRETARY 1:  
Is he married?

GLORIA:  
Don't even think about it.

End scene - Instrumental (**HAPPY HACKER** by Chris Jeffers ?)



Scene 4a (THE SHAPE OF LEARNING)

As music plays (**Happy Hacker**), lights go up, and actors carry beanbag chairs onto center stage. As music winds down, they collapse into chairs. Scientist 1 enters stage left, carrying copy of Rolling Stone magazine.

SCIENTIST #1

Hot off the press. I've got the Stuart Brand Article in Rolling Stone magazine.

SCIENTIST #2

Was wondering when that was coming out.

SCIENTIST #1

Well here it is.

SCIENTIST #3

Wasn't he here a month ago, looking around?

SCIENTIST #1

Yes. And it's all here - new developments in computer labs around the country, including PARC.

SCIENTIST #4

Give it here...

(scientist #1 gives #4 magazine. #4 *reads from magazine*)

"Space Wars, by Stuart Brand - Fanatic Life and symbolic Death Among the computer Bums"... What's that about?

SCIENTIST #5

You know. The game they invented at MIT - SpaceWars

SCIENTIST #4

(Continues reading.)

"Ready or not! Computers are coming to the people. That's good news, maybe the best since psychedelics"...

SCIENTIST #5

Management's going to love that! Why don't you jump forward to the part about Xerox.

SCIENTIST #4

OK. (flips forward several pages).

SCIENTIST #3

(looking over #4 shoulder) (excited)

There's a picture of Peter, Bob Taylor, and Alan! There's a picture of the whole group sitting in bean bag chairs!...Start there!

SCIENTIST #4 (Looks at others)  
And the Dynabook!

(scientists nod in approval)

Here we go...This is from their interview with Alan. (reads from magazine) "Alan Kay, 32, child prodigy, former musician and artist, worked with Ivan Sutherland and Dave Evans at Utah, presently researcher at Xerox, blah, blah, blah, appraises his colleagues. This is really a frightening group, by far the best I know of as far as talent and creativity."

SCIENTISTS (exclaim)  
Frightening?!...Yoo Hoo...Whoa!

SCIENTIST #3  
They're talking about you Dan Ingalls.

Dan  
I don't think so.

Ted  
Without you there is no Dynabook.

Dan  
C'mon.

Scientist #1  
Ted's right. Alan has the vision and math, but without your technical skills, where dead in the water.

Dan  
I'll take that...But it is a group effort.

SCIENTIST #4  
OK. OK. Check this out... (reading from magazine) "Alan is designing a hand-held standalone interactive-graphic computer called "Dynabook" It's mostly high-resolution display screen, with a keyboard on the lower third", blah, blah, blah, "It stores a couple of million characters of text and does all the text handling for you - editing, viewing, scanning, things of that nature. It'll have a graphics capability which'll let you

(Cont'd)

make sketches, make drawings. Alan wants to incorporate music in it so you can use it for composing".

SCIENTIST #3

Let me see...

SCIENTIST #4

Can you wait a minute - I'm still reading!

SCIENTIST #6

Go ahead.

SCIENTIST #4

(continues reading) "A Dynabook could link up with other Dynabooks, with library facilities, with the telephone", blah, blah, blah, "If Xerox Corporation decides to go with the concept, the Dynabooks could be available in two or three years, but that's up to Product Development."

SCIENTIST #5

Good luck with that!

Alan enters stage right, with Adele Goldberg.

SCIENTIST #3

Man of the hour!

ALAN

Hello all. I want to introduce you to Adele Goldberg. Adele is joining the Learning Research Group from the Universities of Michigan and Chicago...Adele, this is Peter, Diana, Chris, Dan, and Ted.

Scientists give Adele a warm greeting.

SCIENTIST #1

Welcome to the Lunatic Fringe!

ALAN

Bob likes to call us that because our ideas are more radical than most, but he supports our work one hundred percent.

SCIENTIST #3

Has he told you about the Dynabook?

ALAN

Of course.

SCIENTIST #3

Alan has 2 major requirements for all new hires. You have to be passionate about the Dynabook and it's potential to amplify the human mind.

SCIENTIST #2

That's True. We spend a lot of time talking about the "book" - playing tennis, bike riding, drinking beer...

SCIENTIST #3

Eating Chinese food.

SCIENTIST #1

Speaking of the book...Alan, have you seen the latest copy of Rolling Stone?

ALAN

No.

SCIENTIST #1

Come here.

Gives Alan copy of magazine. Alan starts reading.

ALAN

Wow! This is amazing! Can I borrow this?

SCIENTIST #1

Sure!

ADELE

What is the other requirement?... (to scientist #3) You said Alan has two requirements.

SCIENTIST #3

Do you play a musical instrument?

ADELE

As a matter of fact - I play the clarinet.

SCIENTIST #6

Great! Everyone here plays an instrument. We get together some lunchtimes to jam.

ADELE

Cool!...I noticed you're all sitting in Beanbag Chairs.

ALAN

Bob Taylor's innovation...Every week the scientists get together and present what they're working on. Sometimes these meetings get contentious, everyone having their own strong opinion on everything. The idea with the chairs, being, that during a meeting everyone will be too relaxed to interrupt...Do you want to try it?

ADELE

Sure.

(Adele sits down in Bean Bag Chair)

Huh.

SCIENTIST #5

What do you think?

ADELE

I'm going to have a hard time getting up!

Alan and Group sing (**THE SHAPE OF LEARNING**)

(SHAPE OF LEARNING)

Alan:

THEY CALL US THE LUNATIC FRINGE  
I GUESS THEY SEE US AS DREAMERS  
OUR HEADS IN THE SKY  
WE HAVE STAR IN OUR EYES  
WHEN WE TALK ABOUT THE DYNABOOK

Group (to Adele):

WE BELIEVE THAT WORK IS FUN  
THAT OUR DAY IS NEVER DONE  
WHEN YOU'RE DOING WHAT YOU LIKE  
THEN YOUR BOUND TO LIKE YOUR LIFE  
  
TRY TO BALANCE WORK AND PLAY  
TO FEEL PASSION EVERY DAY  
GONNA CHANGE THE WAY  
EVERYBODY THINKS

Alan w/Group:

GONNA CHANGE THE SHAPE OF LEARNING  
GONNA CARRY IT AROUND  
GONNA CHANGE THE SHAPE OF LEARNING  
WE ARE SITTING ON THE GROUND

Alan:

TO COMPOSE A WORK OF ART  
YOU DON'T NEED TO BE THAT SMART  
IF WE LEARN TO INTERACT  
YOU CAN HAVE A BIG IMPACT  
  
IF YOU USE OUR DREAM MACHINE  
YOU COULD READ A MAGAZINE  
READ A BOOK, OR MAYBE TWO  
YOU MIGHT CHANGE YOUR POINT OF VIEW

Group:

BE YOURSELF  
AN AUTHENTIC HUMAN BEING  
BE YOURSELF  
LIKE THE WORLD HAS NEVER SEEN  
  
STEP OUT INTO THE UNIVERSE FEARLESSLY!

Alan:

IT'S THE JOY OF LEARNING  
ALL THE WHEELS ARE TURNING  
HOW ARE HEARTS ARE YEARNING TO BE FREE

WE CAN LEARN BY DOING  
ANYTHING WORTH PURSUING  
WE ARE LEARNING EXPERIENTIALLY

Group:

CAN WE HELP THE HUMAN RACE  
MAKE THE WORLD A BETTER PLACE  
LEARN TO TELL THE LIE FROM TRUTH  
WE'RE EMBOLDENED BY OUR YOUTH

WITH THE FUTURE IN OUR HANDS  
CAN WE LEARN TO UNDERSTAND  
CAN WE LEARN...

Group:

TO CHANGE THE WAY WE THINK  
CHANGE THE WAY WE THINK  
CHANGE THE WAY WE THINK

As instrumental plays in background, everyone leaves, except Adele and Diane, who sit in beanbag chairs.

Scene 4b (Mothers of Invention)

ADELE (to Diana)  
Didn't catch your name?

DIANA  
Diana Merry. Nice to have another woman on board.

ADELE:  
Were you really working down the hall in the secretarial pool?

DIANA  
Alan likes to say that, but I also have a background in mathematics. When Alan caught me fooling around with one of the computers, he asked me to join the group.

ADELE (to Diana)  
Well Diana. Could you help me up? I'm having a hard time getting out of this chair.

DIANA  
Sure.

*Diana helps Adele out of chair.*

ADELE  
I'm pregnant with my first.

DIANA  
Does Alan know?

ADELE  
Yeah - I guess he thinks my skills are a good fit, so he can overlook this little detail...Been pretty lucky getting work...Have to wonder if the war wasn't going on, whether we would have this job.

DIANA  
With Alan, you know, his first boss was a woman, so he's a little enlightened there...But it's true...Whenever there's a war, there are more opportunities for women - like the women working on ENIAC during World War II...They never got the credit they deserved.



ADELE

Let's not forget Grace Hopper - rear admiral in the Navy when she wrote the first computer manual...I mean, how many people get a battleship named after them - not something I'd aspire to. Still. Women have a long history as coders.

DIANA

How about Ada Lovelace - mathematician and coder. That was a century ago.

ADELE

Now she was an amazing woman. Balancing a career in mathematics with 3 kids.

DIANA

Some say she was the first computer programmer. The mother of it all. Too bad she wasn't recognized for her contribution.

Adele and Diana sing (**THE MOTHER'S OF INVENTION**)

Adele and Diana sing (**THE MOTHER'S OF INVENTION**)

Diana:

YOU WERE THERE AT THE BEGINNING  
BEFORE IT ALL BEGAN  
NOT ALLOWED IN UNIVERSITY  
DENIED THE OPPORTUNITY  
YOU PAID A STEEP PRICE  
BUT YOU PERSEVERED

Diana & Adele:

THE MOTHERS OF INVENTION

OH, THE WOMEN WHO CAME BEFORE  
XXX

THE WOMEN WHO CAME BEFORE  
XXX

THE WOMEN WHO CAME BEFORE  
XXX

DIDN'T ALWAYS GET THE RECOGNITION  
DIDN'T GET THE CREDIT YOU DESERVED  
YOU'RE THE ONES PASSED OVER FOR THE RAISES,  
THE PRAISES YOU EARNED

Adele:

DIDN'T ALWAYS GET APPRECIATION  
DIDN'T GET THE THANKS THAT YOU WERE DUE  
DIDN'T ALWAYS GET THE UNDERSTANDING, RESPECT THAT IS TRUE

Diana & Adele:

BUT THERE'S SOMETHING TO BE SAID FOR THE JOY OF CREATION  
THERE IS SOMETHING TO BE SAID FOR THE GLADNESS THAT WE SHARE  
THERE IS RAPTURE IN THE CHASE  
SATISFACTION IN THE RACE  
WE'VE GOT THE NUMBERS

YOU ARE MOTHERS OF INVENTION  
YOU WERE MORE THAN A FLASH FROM THE PAST  
WAS A LABOR OF LOVE  
WAS A GIFT FROM ABOVE  
WE'VE GOT YOUR NUMBER

OH, THE WOMEN WHO CAME BEFORE  
 XXX  
 THE WOMEN WHO CAME BEFORE  
 XXX  
 THE WOMEN WHO CAME BEFORE  
 XXX

YOU WERE ALWAYS GOOD AT CALCULATIONS  
 GIRLS WHO HAD AN APTITUDE FOR MATH  
 SAW THAT THERE WAS POETRY IN NUMBERS  
 THE WONDER OF THAT

Adele:  
 YOU EXCEEDED ALL YOUR LIMITATIONS  
 NO DENOMINATION PROVED TO VAST  
 SHOWED US YOU WERE NIMBLE WITH THE SYMBOLS  
 AND CAUSED QUITE A SPLASH

Adele & Diana:  
 THERE IS SOMETHING TO BE SAID FOR THE VARIABLES OF NUMBERS  
 THERE IS SOMETHING TO BE SAID FOR THE SUM OF THE PARTS  
 THERE IS RAPTURE IN THE CHASE  
 SATISFACTION THAT WE FACE  
 WE'VE GOT THE NUMBERS

Adele:  
 DID YOU THINK THE MACHINE WORKS ON IT'S OWN

Adele & Diana:  
 NO!

Diana:  
 WE'RE THE ONES WHO ISSUE ITS COMMANDS

Adele:  
 WRITING SYMBOLIC LANGUAGE  
 WE ARE

Adele & Diana:  
 CODERS

OH, THE WOMEN WHO CAME BEFORE  
 XXX  
 THE WOMEN WHO CAME BEFORE  
 XXX  
 THE WOMEN WHO CAME BEFORE  
 XXX

Diana:

BET YOU DIDN'T KNOW YOU LAID THE GROUNDWORK  
DIDN'T KNOW YOUR EFFORTS PAVED THE WAY  
FOR THE ONES NOW STANDING ON YOUR SHOULDERS  
GIVE THANKS EVERY DAY

Diana:

DIDN'T KNOW YOU LAID OUT THE FOUNDATION  
WE HAVE MUCH THAT WE ARE GRATEFUL FOR  
TO THE ONES WHO BUILT THE FRAMEWORK  
THESE WOMEN OF YORE

Diana & Adele:

WE ARE MOTHERS OF INVENTION  
WE DERIVE OUR ROOTS FROM THE PAST  
IF THE ALGORITHM FITS  
WE ARE CHOMPING AT THE BIT  
WEVE GOT THE NUMBERS

WE THINK YOU'RE NUMBER ONE

Curtain closes/lights go out. Ladies exit. Beanbag chairs are removed.

## SCENE 5 (Engelbart)

Butler and Chuck enter stage left. Turn light on, as they enter office.

BUTLER:

That was some meeting. So unfair. Alan has been working his butt off to get the Green Light on the Dynabook - and nothing! You could tell he put a lot of work into that presentation - and what does he get. Jerry cut him down, just like that (snaps fingers).

CHUCK

I don't think I've ever seen a grown man cry.

BUTLER

Well, he did run out of the room really fast. You have to wonder if this has anything to do with the Rolling Stone article. Ever since that article came out, things have changed around here.

CHUCK

Security is definitely tighter.

BUTLER

You know if Taylor was head of the department, he would have given Alan the go-ahead a long time ago.

CHUCK

He would have asked us to help!

BUTLER

So what if the product is too expensive for business use. We know the price will come down in a matter of time...The research is there. You saw Engelbart's demo.

CHUCK

The Mother of all Demos? Amazing!

BUTLER

We know the technology is there! - word processing, networking. Taylor funded a lot of the research, so you know he wants us to do something...It was Bob's idea to have the demo! Share Doug's research with anyone that was interested. They were both interested in the same things! Interactivity. Augmentation. Genius really!

Butler & Chuck sing ENGELBART

(ENGELBART)

Butler:

DOUGLAS C ENGELBART  
HOW WE KNEW FROM THE START  
THAT YOU HAD SOMETHING SO SPECIAL TO GIVE

DOUGLAS C ENGELBART  
HOW WE KNEW FROM THE START  
THAT YOU HAVE SO GREAT A REASON TO LIVE

YOU HAVE SEEN FAR INTO THE FUTURE  
YOU HAVE LEARNED SO MUCH FROM THE PAST  
YOU HAVE SHARED YOUR GIFT WITH US

Chuck:

BARED YOUR SOUL TO US

Butler:

NOW IT'S TIME THAT WE ASK  
HOW WE BUILD ON YOUR GREAT RESEARCH  
HOW WE MOVE YOUR IDEAS TO THE FORE  
HOW WE SHARE WHAT YOU'VE DONE  
AND MOVE IT ALONG  
WE CONTINUE YOUR SONG

(music speeds up/Rock)

YOU'RE A ROCK STAR, ENGELBART  
BUT WE KNEW THAT FROM THE START  
WHEN YOU WALKED UP TO THE STAGE  
YOU BECAME THEN ALL THE RAGE  
WITH YOUR HEAD ALL AGLOW  
YOU PUT ON QUITE A SHOW  
YOU COULD SAY WE WERE ALL BLOWN AWAY

YOU'RE A ROCK STAR, ENGELBART  
BUT WE KNEW THAT FROM THE START  
WHEN YOU STARTED TO SING  
THE INVENTIVENESS YOU BRING  
YOU HAVE BUILT A MACHINE  
LIKE WE NEVER HAVE SEEN  
AND WE STAND ON OUR FEET AND APPLAUD

Chuck:

WE LIVE IN A WORLD OF MANY CHALLENGES  
THAT POSE A THREAT TO HUMANKIND

AND SO TO MEET THE MANY CHALLENGES  
YOU WANT TO AUGMENT THE HUMAN MIND

Butler:  
YOU'RE A ROCK STAR, ENGELBART  
HOW YOU SUFFERED FOR YOUR ART  
HOW YOU KNEW ALL ALONG  
WE WOULD SOMEDAY SING YOUR SONG  
YOU TOOK BARBS FOR YOUR TEAM  
NEVER RAN OUT OF STEAM  
YOU KEPT ON WITH YOUR WORK, AND WE SAY

Butler and Chuck:  
THANK YOU FOR SHARING  
THANKS FOR PERSEVERING  
THANK YOU FOR BEING ENGELBART

CHUCK  
I say we build the damn thing!..Alan and Dan have the software.  
I could build the hardware in three months...Let's see if Alan  
has money in his department. And we'll do it.

BUTLER (paces)  
Jerry is going to be out of town on Sabbatical, so he won't  
know. By the time he gets back we'll be done. We could call it  
the Interim-Dynabook. A personal computer with a keyboard and  
mouse. We could get Bob English to modify the mouse he made for  
Engelbart. Alan and his team can develop the software.

CHUCK  
I can't wait to see his face when we tell him!

BUTLER:  
C'mon. Let's see if he has the money!

INSTRUMENTAL (ARCHITECTURE OF INFORMATION)  
SPOT on Butler and Chuck as they mosey to Alan's office, stage  
right, and talk excitedly (and silently/mime). They enter Alan's  
office, and talk with Alan who responds excitedly (also  
silent/mime).

Butler and Chuck exit, stage right.

SCENE 6 (**It's Gonna Happen**)

LIGHTS GO UP.

Alan does happy dance and sings **It's Gonna Happen**:

IT'S GONNA HAPPEN  
 COULD IT BE  
 IT'S GONNA HAPPEN NOW  
 IT'S GONNA HAPPEN  
 ONE, TWO, THREE, AND POW

JUST WHEN YOU THINK  
 IT'S GOING TOO SLOW  
 THAT'S WHEN THINGS TURN AROUND  
 WHO WOULD BELIEVE IT  
 ALL OF THE LUCK WE FOUND

ALL OF THE THINGS WE TRIED TO DO  
 ALL OF THE WORK WE'VE DONE  
 WE'RE GONNA HAVE OUR MOMENT IN THE SUN

HARD TO BELIEVE IT  
 HOW COULD IT BE  
 WE'RE GONNA GET THE CHANCE  
 WE'RE GONNA DO IT  
 WE'RE GONNA GET TO DANCE

Alan dances to music (music without words)

Dan pokes head in.

DAN: What's goin' on?

ALAN: Lampson and Thatcher just came by...We're going to build the Dynabook!

DAN: I thought Jerry pulled the plug on that!

ALAN: Jerry is going to be away for six months...Chuck just bet...that he could finish a personal computer in three months. They want us to work on the interface...It's not a notebook, but in time, the power of silicon chips will increase and we'll build the Dynabook... This is the 'Interim Dynabook'!



DAN:

Wow!

Dan (sings):

IT'S GONNA HAPPEN

HAPPEN HERE

GLAD WE COULD BE A PART

Alan:

LET'S GET THE GANG TOGETHER

AND WE'LL START

BUILDING THE FUTURE

HERE IT WILL BE

WE'LL PROVE THE SCEPTICS WRONG

Dan:

THEY WILL BE SIGNING ON

Dan and Alan dance (music without words)

Other scientists join in.

Sing and tap dance (production number)

IT'S GONNA HAPPEN

COULD IT BE

IT'S GONNA HAPPEN NOW

IT'S GONNA HAPPEN

ONE, TWO, THREE, AND POW

JUST WHEN YOU THINK

IT'S GOING TOO SLOW

THAT'S WHEN THINGS TURN AROUND

WHO WOULD BELIEVE IT

ALL OF THE LUCK WE FOUND

ALL OF THE THINGS WE TRIED TO DO

ALL OF THE WORK WE'VE DONE

WE'RE GONNA HAVE OUR MOMENT IN THE SUN

HARD TO BELIEVE IT

HOW COULD IT BE

WE'RE GONNA GET THE CHANCE

WE'RE GONNA DO IT

WE'RE GONNA GET TO DANCE

IT'S GONNA HAPPEN  
HAPPEN HERE  
GLAD WE COULD BE A PART  
LET'S GET THE GANG TOGETHER  
AND WE'LL START

BUILDING THE FUTURE  
HERE IT WILL BE  
WE'LL PROVE THE SCEPTICS WRONG  
THEY WILL BE SIGNING ON.

Lights go out.

End of ACT I