

(Quiet synthesizer music)

[Pop captions up]

Frank Linhares: HI, I'M FRANK LINHARES OF digitalunderground.tv.

I'M GONNA SHOW YOU HOW TO HACK

THIS ASUS TRIPLE-E PC TO ADD

BLUETOOTH TODAY ON "THE LAB."

(Drill buzzing)

[Pop captions down]

(Theme music playing)

(Sound of dial-up modem)

[MUSIC]

Leo Laporte: HEY, HOW ARE YOU?

[Pop captions up]

Leo Laporte: GOOD TO SEE YOU

AND WELCOME TO "THE LAB."

I'M LEO LAPORTE.

THIS IS THE SHOW -- I SAW THAT.

Kate Abraham: (Laughing)

Leo Laporte: YOU JUST GOT THE

CLIPBOARD DONE SECONDS BEFORE I CAME IN.

Kate Abraham: OOF!

Leo Laporte: AND THEN SLIDES IT.

I'M LEO LAPORTE.

THIS IS THE SHOW WHERE WE HELP

YOU UNDERSTAND TECHNOLOGY AND...

AND ALL SORTS OF STUFF, YOU

KNOW, COMPUTERS, CELLPHONES, THE

INTERNET, CAMCORDERS, HACKING,

ALL SORTS OF STUFF.

Kate Abraham: EVERYTHING.

(Laughing)

Leo Laporte: EVERYTHING!

HOME THEATRE.

KATE ABRAHAM, LADIES AND

GENTLEMEN, THE KEEPER OF THE CLIPBOARD.

[Pop captions down]

Kate Abraham: THE SLY.

Leo Laporte: I SAW WHAT YOU DID.

YOU PUT ANGELIQUE ON THERE.

I SAW THAT.

Kate Abraham: YOU KNOW, WE

NEARLY DIDN'T GET HER.

THAT'S WHY.

Leo Laporte: OH, I'M SO GLAD

WE GOT HER.

OKAY, GOOD.

THIS IS EPISODE 158.

STEVE GIBSON'S HERE.

Kate Abraham: MM-HMM.

Leo Laporte: HE'S GONNA TALK

ABOUT A VERY CLEVER SYSTEM HE

INVENTED FOR MAKING IT, SECURE

LOGINS, CALLED "PERFECT PAPER PASSWORDS."

Kate Abraham: "PERFECT PAPER PASSWORDS."

Leo Laporte: P-P-P-P-P!

MR. EXCEL IS GONNA SHOW YOU HOW

TO BUILD AND CUSTOMIZE BUSINESS CHARTS --

Kate Abraham: MM-HMM.

Leo Laporte: IN OFFICE 2007, USING SMARTART.

AND AS YOU SAW, FRANK

LINHARES -- HE'S OUR HACKER --

HE'S TAKING --

HAVE YOU SEEN THESE LITTLE ASUS PC'S?

Kate Abraham: NO, I HAVEN'T.

Leo Laporte: THE EEE PC, IT'S SO CUTE.

IT'S TWO POUNDS.

IT'S A LITTLE BIT OF A SMALL

SCREEN, A SEVEN-INCH SCREEN, BUT

IT'S VERY PORTABLE.

IT RUNS LINUX, ALTHOUGH I THINK

HE'S GOT WINDOWS RUNNING ON IT,

AND APPARENTLY IT'S PRETTY HACKABLE.

HE'S GONNA SHOW US HOW TO ADD

BLUETOOTH TO IT.

YEAH, WELL, HE'S --

Kate Abraham: OH, NO.

Leo Laporte: HE'S GOOD WITH A

SOLDERING IRON.

I WOULD NOT TRY THIS MYSELF, BUT

WE'LL LET MR. LINHARES DO IT.

Kate Abraham: MM-HMM.

Leo Laporte: BUT LET'S GET

ANGELIQUE ON BECAUSE YOU GOT HER!

Kate Abraham: OH, AFTER MUCH

TRYING, WE'VE GOT ANGELIQUE FROM

BONDI BEACH IN NEW SOUTH WALES.

Leo Laporte: SHE'S ON THE BEACH?

Kate Abraham: SHE'S NOT ON

THE BEACH, BUT SHE IS VERY CLOSE

TO IT.

Leo Laporte: OH, THAT'S COOL.

THANK YOU, KATE.

HELLO, ANGELIQUE!

[Pop captions up]

Angelique: HI!

(Giggling)

Leo Laporte: OH, MY GOSH,
YOU'RE ON BONDI BEACH,
WORLD-FAMOUS BONDI BEACH.

Angelique: YEAH, ABOUT TWO
(Unclear) AWAY, BUT IT'S NOT
VERY SUNNY.

Leo Laporte: ARE YOU A SURFER?

[Pop captions down]

Angelique: SORRY?

Leo Laporte: ARE YOU A SURFER?
DO YOU SURF?

Angelique: I USED TO BE.
YOU KNOW, WHEN I LIVED IN
AMERICA, I USED TO SURF, BUT
SINCE I CAME BACK TO AUSTRALIA,
THE WAVES ARE JUST TOO BIG HERE.

(Giggling)

Leo Laporte: THEY'RE SCARY, AREN'T THEY?
I KNOW!

WELL, IT'S GREAT TO TALK TO YOU.

Angelique: YEAH.

Leo Laporte: WHAT CAN I --
WHAT CAN I DO FOR YOU TODAY,
ANGELIQUE?

Angelique: I'VE GOT A
QUESTION ABOUT MY MICROSOFT
OUTLOOK.
WHEN I WRITE AN E-MAIL, I GET --
IT GATHERS ALL THE E-MAILS UNDER
THE "SENT," AND, FOR EXAMPLE, IF
I TYPE AN "A," IT'LL SHOW ALL

THE E-MAILS BEGINNING WITH "A,"
AND IF I WANT TO E-MAIL ALL
THOSE PEOPLE, I HAVE TO JUST ONE
BY ONE SCROLL THROUGH --

Leo Laporte: RIGHT.

Angelique: AND GO DOWN.

AND I WANTED TO KNOW WHERE THE
E-MAILS ARE KEPT IN THE PROGRAM
SO THAT I DON'T HAVE TO SPEND SO
MUCH TIME.

YOU KNOW, I'VE GOT LIKE
50 E-MAILS BEGINNING WITH "A."
YOU KNOW, I'VE GOTTA SCROLL DOWN
ONE AND TWO AND ENTER AND THEN THREE --

Leo Laporte: RIGHT, RIGHT, RIGHT.

WHAT YOU'RE, WHAT YOU'RE LOOKING
AT IS THE AUTOCOMPLETE FEATURE
OF OUTLOOK, AND IT'S ACTUALLY --

Angelique: YEAH.

Leo Laporte: IT MAKES SENSE... A LITTLE BIT.

(Laughing)

I'LL EXPLAIN WHAT IT'S DOING.

THE REASON AND WHY IT DOES IT
THIS WAY --

LET ME SEE IF WE HAVE IT.

DO WE HAVE OUTLOOK ON HERE?

I CAN'T REMEMBER IF WE'VE PUT IT
ON HERE OR NOT.

LET ME JUST TYPE --

Sean Carruthers: JUST EXPRESS.

Leo Laporte: (Muttering)

"OUTLOOK."

[Pop captions up]

(Keys tapping)

Leo Laporte: NO, WE DON'T, IT DOESN'T LOOK LIKE, JUST WINDOWS MAIL. SO THIS IS WHAT OUTLOOK'S DOING. IN THE OLD DAYS, OUTLOOK EXPRESS WOULD -- IT HAD A CHECK BOX SAYING, "DO YOU WANT ME TO REMEMBER EVERYBODY YOU SEND E-MAIL TO," AND IT WOULD ACTUALLY ADD THEM TO THE ADDRESS BOOK, BUT YOU SEND E-MAIL TO A LOT OF PEOPLE, AND SOMETIMES YOU DON'T WANT TO REALLY KEEP THEM IN YOUR ADDRESS BOOK.

[Pop captions down]

Leo Laporte: IT'S JUST A ONE-TIME THING. SO YOUR ADDRESS BOOK WOULD GET FILLED WITH ALL THESE ADDRESSES OF PEOPLE YOU DIDN'T EVEN KNOW WHO THEY WERE, SO IN OUTLOOK, THEY SAID, "WELL, WAIT A MINUTE. THIS ISN'T GONNA WORK. WE CAN'T JUST ADD THEM TO THE ADDRESS BOOK. WE'LL CREATE A NEW THING CALLED THE NICKNAME FILE." AND THE NICKNAME FILE CONTAINS THE ADDRESSES OF EVERYBODY YOU'VE EVER SENT E-MAIL TO, AND IT GOES INTO THE AUTOCOMPLETE AUTOMATICALLY, BUT IT'S NOT IN YOUR ADDRESS BOOK, SO YOU'RE PROBABLY WONDERING, "WHERE THE HECK IS IT COMING FROM?"

THERE'S A NICKNAME FILE CALLED
THE NK2 FILE, AND THAT FILE IS
IN THE OUTLOOK FOLDER.

IF YOU JUST DO A SEARCH FOR
"NK2," YOU'LL FIND IT.

IF YOU DON'T WANT ANYTHING IN
THERE, YOU CAN DELETE IT, BUT IT
DOESN'T SOUND LIKE YOU DON'T
WANT ANYTHING IN THERE.

DO YOU --

WHAT DO YOU WANT?

HOW DO YOU WANT THIS TO DO --

DO YOU WANT TO TURN OFF THAT
AUTOCOMPLETE?

DO YOU WANT TO REDUCE THE NUMBER
OF NAMES THERE?

WHAT DO YOU WANT TO DO?

Angelique: I LOVE IT BECAUSE
I NEED TO SEND E-MAILS TO A LOT
OF PEOPLE QUITE REGULARLY, BUT
IT JUST TAKES A LOT OF TIME.

Leo Laporte: TO SEARCH THROUGH IT.

Angelique: DO I GO INTO THE
OUTLOOK FOLDER AND THEN IN THE
(Unclear) I DO "NK" AND THEN NUMBER 2?

Leo Laporte: YEAH, YEAH, IF
YOU JUST DO A SEARCH.

THE BEST WAY TO DO IT IS JUST DO
A SEARCH FOR STAR DOT "NK2,"
AND THAT'LL GIVE YOU THE
NICKNAME FILE, AND YOU CAN JUST
DELETE IT.

NOW, THAT'S GONNA --

THAT MAY NOT BE WHAT YOU WANT.

THAT'LL DELETE EVERYTHING.

YOU CAN ALSO TURN OFF THE

AUTOCOMPLETE FEATURE.

(Indiscernible)

Leo Laporte: YEAH, THE NK2

FILE, IF YOU DELETE IT, IT

DELETES EVERYTHING.

YOU CAN'T EDIT IT, BUT YOU CAN,

AS IN ALL AUTOCOMPLETE, ANYTIME

YOU'VE GOT AN AUTOCOMPLETE, SO

YOU'RE TYPING SOMETHING, AND IT

GIVES YOU THESE CHOICES --

HERE'S AUTOCOMPLETE IN INTERNET

EXPLORER, SO I TYPED "L," AND IT

SHOWS ALL THE DIFFERENT

"L" SITES I CAN GO TO -- YOU

CAN, YOU KNOW, SELECT A SITE AND

PRESS THE DELETE KEY AND DELETE

IT SO THAT IT WILL DELETE OUT OF THAT --

Angelique: OH, YEAH, I WANT

TO DO THAT.

Leo Laporte: SO YOU CAN GO

THROUGH THEM AND ONE BY ONE

DELETE THEM.

THE OTHER THING YOU CAN DO IS

YOU CAN DO CONTROL-K.

WHEN YOU'RE IN OUTLOOK, IF YOU

TYPE THE FIRST FEW LETTERS, AND

IF YOU WANT IT TO LOOK IN YOUR

ADDRESS BOOK AND THE NICKNAME,

IF YOU TYPE CONTROL-K, IT'LL

SHOW YOU EVERYTHING THAT MATCHES

THAT, SO YOU COULD TURN OFF
AUTOCOMPLETE AND THEN ONLY USE
CONTROL-K WHEN YOU WANTED TO SEE
YOUR CHOICES.

Angelique: SO YOU GO INTO THE
ADDRESS BOOK, AND THEN YOU JUST
TYPE "CONTROL-K."

Leo Laporte: YEAH.
SO THERE'S KIND OF DIFFERENT
WAYS TO HANDLE IT DEPENDING ON
WHAT KIND OF BEHAVE --
I'M NOT SURE WHAT BEHAVIOUR YOU WANT.
IF YOU DON'T WANT THIS
AUTOCOMPLETE, YOU CAN JUST TURN
IT OFF.

IT'S JUST A SETTING IN THE OPTIONS.

Angelique: YEAH, NO, I WANT IT.
I LIKE IT.

(Chuckling)

Leo Laporte: YEAH, I LIKE IT,
TOO, BECAUSE I NEVER REMEMBER
ADDRESSES.

IF YOU WANT IT TO LOOK IN THE --
IF YOU WANT TO START OVER WITH
YOUR NICKNAMES, JUST DELETE THE
NK2 FILE.

IT'LL CONTINUE TO --
IT'LL START UP AGAIN EVERY TIME
YOU SEND SOMEBODY AN E-MAIL, BUT
IT WILL --
YOU KNOW, IT'LL START FROM SCRATCH.
THAT'S FINE.

IT'S ALLOWED TO --

YOU'RE ALLOWED TO DO THAT.
IT'S REALLY A CACHE OF NICKNAMES
MORE THAN ANYTHING.

Angelique: AND WHEREABOUTS DO
I SEARCH FOR IT, BECAUSE I'M
JUST RIGHT NOW TRYING TO SEARCH
FOR IT --

Leo Laporte: ARE YOU LOOKING
FOR IT RIGHT NOW?

Angelique: I CAN'T FIND IT.

Leo Laporte: SEAN, DO YOU
HAVE THE SHOW NOTES IN FRONT OF
YOU, BECAUSE I THINK I HAVE A --
I PUT A MICROSOFT TECH NOTE ON --

Sean Carruthers: YES, IT'S #287623.

Leo Laporte: SO IF YOU GO TO
support.microsoft.com, AND YOU SEARCH FOR 287...
WHAT WAS IT?

Sean Carruthers: 623.

Leo Laporte: 287623.

THAT'LL GIVE YOU THAT TECH NOTE,
AND THAT DESCRIBES WHAT THIS
FILE IS, WHERE IT IS AND HOW YOU
CAN GET RID OF IT, "HOW TO RESET
THE NICKNAME IN AUTOMATIC
COMPLETION CACHES."

BUT THE EASIEST THING TO DO IS
JUST CLICK "START, SEARCH," AND
SEARCH FOR NK2 FILES, NK2 FILES.

(Indiscernible)

Leo Laporte: YEAH, JUST I'LL SHOW YOU.
I'LL GO THROUGH IT, BUT --
SO IT'S STAR --

IF YOU TYPE "START, SEARCH," AND
THEN TYPE STAR DOT "NK2," YOU FIND --
NOW, ACTUALLY, OH, I SEE.

HERE'S PART OF THE PROBLEM.

YOU HAVE TO BE ABLE TO SEARCH
FOR HIDDEN FILES.

IT'S HIDDEN.

SO YOU GOTTA --

IN THE MORE ADVANCED OPTIONS,
YOU GOTTA SAY "SEARCH HIDDEN
FILES AND FOLDERS."

OTHERWISE, IT WON'T FIND THAT.

THAT'S WHAT I WAS LEAVING OUT.

Angelique: OH, OKAY.

Leo Laporte: THAT'S WHY IT
DIDN'T SHOW UP.

NOW, YOU CAN JUST CLICK IT.

THEY SUGGEST YOU RENAME IT
INSTEAD OF DELETING IT IN CASE
YOU WANT TO BRING IT BACK.

THAT'S ACTUALLY NOT A BAD IDEA,
BUT ONCE YOU RENAME IT OR DELETE
IT, IT'LL ERASE ALL OF THOSE,
AND YOU'LL START FROM SCRATCH.

Angelique: OKAY.

Leo Laporte: OKAY?

SO IN ORDER TO MAKE IT WORK, YOU
HAVE TO TURN ON HIDDEN FILES.

(Funky digital music)

Leo Laporte: THAT'S THE THING I LEFT OUT.

Angelique: OKAY, GOT IT.

Leo Laporte: YEAH, BECAUSE
OTHERWISE, IT WON'T SHOW UP.

IT'S A --

YOU KNOW, THEY REALLY SHOULD
GIVE YOU AN INTERFACE, TO BE
HONEST WITH YOU.

THIS IS --

THEY SHOULD LET YOU CONTROL THIS
A LITTLE BIT BETTER.

YOU SHOULD BE ABLE TO OPEN IT,
DELETE STUFF YOU DON'T WANT IN
THERE, ADD STUFF.

FOR INSTANCE, SOMETIMES IT LOOKS
IN THE ADDRESS BOOK, BUT
SOMETIMES IT DOESN'T.

IT SEEMS TO BE RANDOM AS TO WHEN
IT'S LOOKING IN THE
ADDRESS BOOK.

THAT'S WHY I LIKE TO USE THE
CONTROL-K, IF THAT MAKES SENSE.

WELL, I HOPE THAT HELPS.

[MUSIC]

I WISH WE COULD SEE A PICTURE OF
BONDI, BONDI BEACH OUT THERE.

OH, I BET IT'S SO BEAUTIFUL.

IT'S GREAT TO TALK TO YOU,

ANGELIQUE.

THANK YOU SO MUCH FOR JOINING US.

[MUSIC]

Angelique: THANK YOU.

[Pop captions up]

Leo Laporte: TAKE CARE.

BYE-BYE!

COMING UP, PERFECT... PAPER...

PA-A-ASSWORDS!

STEVE GIBSON'S GONNA SHOW YOU
HOW HE SOLVED THE PROBLEM WITH
EMPLOYEES THAT ARE ROAMING ALL
OVER THE PLACE.

HOW DO YOU GIVE THEM ACCESS TO
YOUR NETWORK WITHOUT GIVING THE
BAD GUYS ACCESS?

WE'LL FIND OUT WHEN

"THE LAB" CONTINUES.

STAY RIGHT HERE.

[MUSIC]

[Pop captions down]

COMMERCIAL

(Theme music playing)

Leo Laporte: WELCOME BACK TO "THE LAB."
STEVE GIBSON IS HERE, OUR SECURITY GUY.

HE DOES A PODCAST WITH ME CALLED
"SECURITY NOW" EVERY THURSDAY.

WE TALK ABOUT SECURITY.

WE TALKED ABOUT PERFECT PAPER
PASSWORDS AT GREAT LENGTH, BUT I
THOUGHT IT WOULD BE FUN TO GET
HIM ON AND TALK IN KIND OF A
SHORTER SYNOPSIS OF WHAT EXACTLY
THESE ARE AND WHY YOU INVENTED THIS.

Steve Gibson: WE'VE TALKED
BEFORE ABOUT ELECTRONIC TOKENS
OF DIFFERENT SORTS.

Leo Laporte: RIGHT.

Steve Gibson: THIS IS ONE
THAT VERISIGN MAKES, WHERE --

Leo Laporte: I USE THIS, TOO.
YOU GAVE ME ONE OF THESE, WHICH

IS REALLY --

THEY'RE ABOUT 40 BUCKS.

Steve Gibson: THEY'RE NOT CHEAP.

YOU'VE GOT A LITTLE BUTTON

THERE, AND IT GENERATES --

Leo Laporte: NOW WATCH.

Steve Gibson: IT GENERATES A

UNIQUE SIX-DIGIT CODE EVERY TIME

YOU PRESS THE BUTTON.

Leo Laporte: SO THE NEW CODE

CAN BE USED AS A PASSWORD, BUT

IT'S ONLY GOOD FOR 30 SECONDS.

Steve Gibson: IT'S --

NO, THIS ONE IS NOT TIME-BASED.

THIS ONE IS SEQUENCE-BASED.

THERE ARE THE LITTLE

FOOTBALL-SHAPED ONES.

Leo Laporte: SO THIS IS GOOD

AS LONG AS --

Steve Gibson: UNTIL YOU USE IT.

Leo Laporte: AS LONG AS YOU

DON'T USE IT, AND THEN AS SOON

AS YOU USE IT, YOU NEED TO PRESS

AGAIN AND GET A NEW ONE.

Steve Gibson: SO IT'S A

ONE-TIME PASSWORD.

Leo Laporte: OH, THAT'S COOL!

Steve Gibson: YOU CAN ONLY

USE IT ONE TIME.

Leo Laporte: NOW, THE

ADVANTAGE OF THAT IS EVEN IF

SOMEBODY'S WATCHING YOU, OR

YOU'VE GOT A KEYSTROKE LOGGER,

OR THEY'RE MONITORING YOU, ONCE
YOU USE IT, IT'S NO GOOD!

[Pop captions up]

Steve Gibson: EXACTLY, AND
THAT'S THE KEY BECAUSE THE, YOU
KNOW, USER NAME AND PASSWORD
LOGONS HAVE THE PROBLEM WITH
KEYSTROKE LOGGERS.

Leo Laporte: RIGHT.

Steve Gibson: WE'VE TALKED
ABOUT HOW INSECURE WIRELESS
KEYBOARDS ARE, THAT IT'S EASY TO
SNIFF THEM, SO WHAT I WANTED
WHEN I WAS DESIGNING A SYSTEM
FOR GRC'S USE, WHICH HAS NOW
GONE PRETTY MUCH GLOBAL BECAUSE
IT'S BEEN IMPLEMENTED IN EVERY
LANGUAGE THERE IS, AND ALL THE
SOFTWARE'S --

[Pop captions down]

Leo Laporte: EVERY COMPUTER LANGUAGE.

Steve Gibson: EVERY COMPUTER LANGUAGE.

ALL THE SOFTWARE'S FREE AT

grc.com SLASH ppp.

SO, FOR EXAMPLE, WEBMASTERS
COULD IMPLEMENT THIS SYSTEM FOR
THEIR OWN LOGONS.

Leo Laporte: WELL, HERE'S THE ISSUE.

YOU KNOW, YOU COULD GIVE
EVERYBODY WHO WORKS FOR YOU ONE
OF THESE, AND YOU COULD
IMPLEMENT THAT SYSTEM.

[Pop captions up]

Leo Laporte: I WISH ALL BANKS
WOULD USE THESE, FOR INSTANCE.
BUT THERE'S AN EASY CHEAP WAY
YOU DID IT WITH THIS!
INSTEAD OF HAVING A CARD, YOU
USE THIS CHART OF ONE-TIME-USE
PASSWORDS.

[Pop captions down]

Steve Gibson: WELL, THE OTHER
PROBLEM WITH ANY OF THESE TOKENS
IS THAT YOU HAVE TO HAVE A
RELATIONSHIP WITH VERISIGN OR
SOME AUTHENTICATION SERVICE.

Leo Laporte: SO YOU COULD
EASILY SET THIS UP.
NOW, WHEN I USE THIS, $8N=3$, I
JUST CROSS IT OFF?

Steve Gibson: YES, THE IDEA
IS THAT END USERS CAN PRINT
THESE LITTLE PASSWORD CARDS --

Leo Laporte: WE GET QUITE A
FEW OF THEM, OKAY.

Steve Gibson: ON THEIR OWN MACHINE.

Leo Laporte: FOLD IT UP, PUT
IT IN YOUR WALLET.

Steve Gibson: EXACTLY.

Leo Laporte: IT'S THE SAME
SIZE AS THE VERISIGN.

Steve Gibson: AND THERE'S
210 PASSWORDS THERE THAT ARE --
THIS GIVES YOU ONE OF A MILLION
POSSIBLE PASSWORDS.

Leo Laporte: RIGHT.

Steve Gibson: THIS IS ONE OF
ALMOST 17 MILLION.

Leo Laporte: (Chuckling)

Steve Gibson: SO EVEN THOUGH
THERE ARE ONLY FOUR CHARACTERS,
BECAUSE THEY'RE ALPHANUMERIC,
NOT JUST NUMERIC --

Leo Laporte: THEY'RE MIXED, YEAH.

Steve Gibson: IT'S EVEN
STRONGER THAN THE NORMAL PASSWORD.

Leo Laporte: NOW, I
UNDERSTAND WHY THIS IS A GOOD
IDEA, BUT HOW DOES THE SERVER
KNOW WHICH PASSWORD YOU'RE GONNA USE?

Steve Gibson: WELL, THE IDEA
IS IT KNOWS, FOR EXAMPLE, YOU
KNOW, COLUMN A, ROW 1.
THEN IT GOES TO B, C, D.
SO IT MOVES ALONG SEQUENTIALLY,
NEVER ASKING YOU FOR ONE THAT
YOU'VE USED BEFORE, ONLY MOVING
FORWARD.

Leo Laporte: OH, SO IT'LL ASK
YOU AND SAY, "I WANT TO SEE C6?"

Steve Gibson: YES, AND YOU'RE
THE ONLY ONE WHO KNOWS WHAT C6
IS, THE MAGIC COMBINATION AT
THAT INTERSECTION, BECAUSE IT
WORKED WITH YOU TO PRINT THOSE.

Leo Laporte: SO YOU WOULD
HAVE TO IMPLEMENT IT ON BOTH THE
SERVER AND GIVE --
AND, YOU KNOW, AND HAVE THE

USER, BEFORE THEY WENT ON THE ROAD, PRINT THIS OUT. THE SERVER WOULD KNOW WHO THE USER IS, WOULD KNOW WHAT THEIR CARD SAYS --

Steve Gibson: YES.

Leo Laporte: AND COULD ASK YOU AFTER YOU LOG IN -- THIS WOULD BE IN ADDITION TO A LOGIN, RIGHT?

Steve Gibson: YOU GIVE THEM YOUR USER NAME FIRST --

Leo Laporte: YEAH.

Steve Gibson: AND THEN THE -- AND SO THAT IDENTIFIES YOU. THEN THE NEXT THING IT ASKS FOR IS YOUR PASSWORD AND THIS PASSCODE, THE ONE-TIME --

Leo Laporte: SO SAME THING AS THIS VERISIGN CARD.

WHEN I LOG INTO eBAY OR PAYPAL, FOR INSTANCE, I'LL USE A USER NAME AND PASSWORD, AND THEN IT WILL SAY, "OKAY, NOW GIVE ME YOUR SIX-KEY SECURITY CODE." MY SON LAST NIGHT WANTED TO BID ON eBAY, AND HE CALLED ME UP AND SAID, "DAD, WHAT'S A SIX-KEY SECURITY CODE?"

(Indiscernible)

I SAID, "WELL, I HAPPEN TO HAVE IT HERE." AND I DIDN'T MIND GIVING IT TO HIM BECAUSE IT'S ONLY GOOD THAT ONE TIME.

Steve Gibson: YES, HE COULD NEVER USE IT AGAIN.

Leo Laporte: HA-HA!

GOTCHA!

SO THAT'S THE SAME IDEA BEHIND THIS.

Steve Gibson: SAME IDEA HERE.

THESE ARE --

THIS WHOLE SYSTEM, HOWEVER, IS
FREE AND OPEN SOURCE AT grc.com.

Leo Laporte: AND YOU DON'T
HAVE TO HAVE A RELATIONSHIP WITH VERISIGN.
NOW, WHAT IF I LOSE THIS CARD?

Steve Gibson: AH, THAT'S THE
OTHER COOL THING IS, FIRST OF
ALL, YOU CAN --

THESE ARE NUMBERED 1, 2 AND 3.

[Pop captions up]

Steve Gibson: THEY GO ON LITERALLY FOREVER.

Leo Laporte: THERE'S NO LIST,
NO LIMIT TO THEM.

Steve Gibson: SO YOU CAN JUST
SAY, "GIVE ME 4, 5 AND 6 AND
JUST WIPE OUT THOSE THREE," OR
IF YOU THOUGHT MAYBE SOMEBODY
SAW YOUR CARD, OR IF IT WAS OUT
OF YOUR CONTROL --
THEY MIGHT HAVE XEROXED IT.

[Pop captions down]

Leo Laporte: RIGHT.

Steve Gibson: YOU'RE ABLE TO
OBSOLETE ALL OF THOSE AND GO TO
THE NEXT SET THAT HAVE NEVER
BEEN SEEN BEFORE.

Leo Laporte: "GIVE ME SOME NEW ONES."

Steve Gibson: YEP.

Leo Laporte: NOW, AT THE TIME, WHEN YOU'RE PRINTING THESE, YOU HAVE TO VERIFY YOUR PERSON, YOURSELF, SOME OTHER WAY, RIGHT?

Steve Gibson: EXACTLY.

Leo Laporte: VERY SECURELY MAYBE WITH A SECRET NAME OR SOMETHING LIKE THAT.

Steve Gibson: EXACTLY, SOMETHING THAT WOULD BE BURDENSOME TO NORMALLY USE BECAUSE THESE, BECAUSE THESE ARE SO SIMPLE AND EASY.

Leo Laporte: NOW, BOTH OF THESE SYSTEMS ARE WHAT WE CALL TWO-FACTOR AUTHENTICATION, RIGHT?

Steve Gibson: MULTI-FACTOR.

Leo Laporte: MULTI-FACTOR. ACTUALLY, THERE'S A THIRD FACTOR.

Steve Gibson: USER NAME, PASSWORD --

Both: "AND..."

Steve Gibson: YEAH, THE IDEA BEING SOMETHING YOU KNOW AND SOMETHING YOU HAVE.

ONLY IF YOU HAVE THIS PAPER --

Leo Laporte: RIGHT.

Steve Gibson: THAT PROVES YOU HAVE THE PAPER BECAUSE THAT'S THE ONLY WAY YOU WOULD KNOW THE NEXT CODE IN THE SEQUENCE.

Leo Laporte: WE'RE STARTING

TO SEE SECURE SITES USE THESE
MORE AND MORE, AND IT'S A REALLY
GOOD IDEA.

Steve Gibson: IT IS THE FUTURE OF THE INTERNET.

I MEAN WE'RE NEEDING MORE
SECURITY FOR LOGON, AND WE'RE
NEEDING TO BE, HAVE SOME
PROTECTION FROM HACKERS, WHO ARE
TRYING TO GET INTO OUR ACCOUNTS.

Leo Laporte: RIGHT.

THIS IS A HIGH-TECH WAY THAT
REQUIRES A THIRD PARTY LIKE
VERISIGN TO IMPLEMENT, BUT A LOT
OF BANK --

I'LL TELL YA, I LOVE IT THAT
eBAY AND PAYPAL USE THIS.

Steve Gibson: AND YOU JUST
HAVE IT IN YOUR WALLET.

Leo Laporte: I KEEP IT ALL
THE TIME, AND I WISH THAT MY
BANK WOULD START USING THIS.

Steve Gibson: OF COURSE,
THAT'S IN MY WALLET, TOO.

Leo Laporte: BUT THIS IS
ANOTHER WAY TO DO IT, AND IT'S
FREE, LOW-TECH, EASY TO
IMPLEMENT, AND AS STEVE SAID,
THERE'S PERL, THERE'S PYTHON,
THERE'S ASP, THERE'S A MILLION
DIFFERENT WAYS TO DO IT.

Steve Gibson: THERE'S PPP AND C++, .NET.
ALL THAT SOFTWARE'S OPEN SOURCE
AND AVAILABLE AT GRC.

[Pop captions up]

Leo Laporte: SO IF YOU WANT TO IMPLEMENT THIS ON YOUR SYSTEM, GO TO grc.com.

Steve Gibson: OH, AND A MAC LOGON, A PAM ADD-ON, SO MAC USERS ARE ABLE TO USE IT TO LOG ONTO THEIR MACINTOSHES.

Leo Laporte: A PLUGGABLE AUTHENTICATION MODULE.

Steve Gibson: RIGHT.

Leo Laporte: SO A LOT OF SYSTEMS USE PAM. THIS CAN WORK WITH PAM AS WELL.

[Pop captions down]

Steve Gibson: AND LINUX, TOO.

Leo Laporte: YEAH.

SO grc.com SLASH ppp.

[Pop captions up]

Leo Laporte: BUT WE ALSO THOUGHT IT WOULD BE GOOD, EVEN IF YOU'RE NEVER GONNA USE THIS, TO KNOW ABOUT THESE KINDS OF MULTI-FACTOR AUTHENTICATIONS BECAUSE I THINK THIS IS THE FUTURE.

Steve Gibson: SECURITY'S A GOOD THING.

Leo Laporte: IT IS A GOOD THING, AS WE WELL KNOW.

[Pop captions down]

Leo Laporte: IF YOU WANT TO KNOW MORE ABOUT SECURITY, GO TO grc.com, LISTEN TO OUR PODCAST, OR DOWNLOAD SOME OF STEVE'S VERY USEFUL TOOLS, LIKE "SHIELDS UP," THAT HELP YOU BE MORE SECURE,

AND DON'T FORGET HIS GREAT
HARD DRIVE MAINTENANCE AND
RECOVERY UTILITY SPINRITE --

Steve Gibson: (Singing in high-pitched voice)

" SPINRITE "

Leo Laporte: NOW IN ITS THIRD DECADE.

Steve Gibson: (Laughing)

THIRD DECADE.

Leo Laporte: WOW!

Steve Gibson: IT'S AS OLD AS I AM.

Leo Laporte: (Chuckling)

NO, IT'S NOT.

Steve Gibson: OH, IT'S A LOT OLDER.

Leo Laporte: NOBODY'S AS OLD

AS YOU ARE.

(Laughing)

Steve Gibson: SOMEBODY'S OLDER.

(Laughing)

Leo Laporte: THANK YOU, STEVE.

IT'S REALLY GREAT TO HAVE YOU IN HERE.

ALL RIGHT, WE'RE GONNA TAKE A
BREAK AND COME BACK WITH MORE IN
JUST A BIT, BUT FIRST LET'S TAKE
A CLOSE-UP LOOK AT SOMETHING
YOU'D COMMONLY FIND AROUND THE LAB.

OH, I RECOGNIZE THAT.

THAT WOULD BE... I DON'T KNOW WHAT.

MAYBE YOU KNOW WHAT IT IS.

THINK ABOUT IT.

WE'LL ZOOM OUT AND FIND OUT WHEN

"THE LAB" CONTINUES.

Steve Gibson: I DO KNOW WHAT IT IS.

Leo Laporte: YOU DO?

OH, YOU'RE GOOD.

(Mellow digital music)

COMMERCIAL

(Mellow digital music)

Leo Laporte: WELCOME BACK TO "THE LAB."

BEFORE THE BREAK, WE SAW THIS

KIND OF GRID THING.

STEVE SAID HE THOUGHT IT WAS A

FUEL CELL.

[Pop captions up]

Leo Laporte: LET'S ZOOM OUT,

AND LET'S FIND OUT.

(Snorts)

IT'S --

I DON'T KNOW WHAT IT IS.

IT'S AN HP BLACKBIRD.

IS THAT A COMPUTER?

Sean Carruthers: THAT'S THE

NEW ONE DONE WITH A PARTNERSHIP

WITH VOODOO.

[Pop captions down]

Leo Laporte: IT'S VERY STEAMPUNK.

I LIKED IT.

(Laughing)

THE BLACKBIRD.

YEAH, WELL, OH, WELL, THERE YOU GO.

YOU NEVER KNOW WITH THESE PICTURES.

WHEN YOU GET SO CLOSE, IT'S HARD TO TELL.

KATE ABRAHAM, LET ME GET CLOSE.

WHO DO YOU HAVE FOR US?

Kate Abraham: CAN YOU SEE MY WRINKLES?

Leo Laporte: NO!

Kate Abraham: I HAVE --

Leo Laporte: WRINKLES?

SHE'S LIKE 12 YEARS OLD.

Kate Abraham: OH, IF ONLY!

Leo Laporte: (Laughing)

Kate Abraham: I HAVE ANDREW
FROM LAREDO IN TEXAS ON THE SKYPE.

Leo Laporte: OH, LOOK AT THIS GREAT PICTURE!

ALL RIGHT, HELLO, ANDREW!

HOW ARE YOU TODAY?

[Pop captions up]

Andrew: I'M FANTASTIC, LEO.

HOW ARE YOU DOIN'?

Leo Laporte: COULDN'T BE BETTER.

WELCOME TO "THE LAB."

Andrew: WELL, THANK YOU!

I'VE GOT ONE REQUEST FOR YA.

Leo Laporte: YES, SIR.

Andrew: BRING BACK YOUR
WALL MAP WITH THE PINS ON IT.

[Pop captions down]

Leo Laporte: WE OUGHTA,
BECAUSE I'LL TELL YOU WHAT.
YOU'RE OUR FIRST CALLER FROM
LAREDO, THAT'S FOR SURE!

Andrew: (Chuckling)

Leo Laporte: WE DON'T GET A
LOT OF TEXANS BECAUSE WE'RE NOT
ON IN TEXAS.

I DON'T EVEN KNOW HOW YOU KNOW
ABOUT THE SHOW.

OH, YOU PROBABLY SEE THE WEBSITE
BECAUSE WE DO PUT A LOT OF THE
GUEST SEGMENTS UP ON THE WEB.

Andrew: WELL, ACTUALLY I HAVE
A LITTLE GRAY MARKET RECEIVER.

Leo Laporte: OH! REALLY?

Andrew: YEAH!

Leo Laporte: YOU --
ARE YOU TELLING ME YOU WATCH
CANADIAN TELEVISION IN LAREDO?

Andrew: IT SURE BEATS U.S. TELEVISION.

Leo Laporte: HA-HA!

I LOVE IT!

THAT'S FUNNY.

DID YOU LIVE IN CANADA FOR AWHILE?

Andrew: NO, BUT I --

I'VE GOT SO MANY FRIENDS UP
THERE, AND I USED TO GO TO
TORONTO ABOUT, OH, FOUR OR FIVE
TIMES A YEAR.

Leo Laporte: WELL, I'LL BE DARNED.
YOU KNOW, I KNOW ONE OTHER
PERSON WHO HAS A CANADIAN
SATELLITE DISH IN THE U.S., BUT
HE'S FROM TORONTO, AND HE WANTED
TO WATCH HIS LOCAL STUFF.

THAT'S VERY INTERESTING.

AND THERE'S QUITE A FEW
CANADIANS WHO WISH THEY HAD
U.S. TV'S, SO I GUESS THE GRASS
IS ALWAYS GREENER ON THE OTHER
SIDE OF THE 49th PARALLEL.

WELL, WHAT CAN I DO FOR YOU TODAY?

Andrew: OKAY, WELL, AT
SCHOOL, WE HAVE AN ATTENDANCE
PROGRAM THAT SITS ON THE SCHOOL SERVER.

Leo Laporte: OKAY.

Andrew: I CAN ACCESS IT WITH INTERNET 7 --

Leo Laporte: YEAH.

Andrew: IE7 --

Leo Laporte: YEAH.

Andrew: BUT I CANNOT ACCESS
IT WITH FIREFOX.

Leo Laporte: OH, YEAH, I MEAN
THIS DOES HAPPEN SOMETIMES.
THE PROGRAM PROBABLY USES
ACTIVE X OR SOME SORT OF
MICROSOFT PROPRIETARY TECHNOLOGY
AND JUST REQUIRES THAT.

I MEAN IT'S FINE TO USE IE7.

YOU KNOW, I ALWAYS INVEIGH
AGAINST IE6, BUT I THINK
MICROSOFT'S MADE SOME BIG STEPS
WITH IE7.

IT'S MUCH BETTER THAN IT USED TO
BE, BOTH IN COMPATIBILITY AND
SECURITY, ESPECIALLY IF YOU'RE
USING IT IN VISTA.

ARE YOU USING IT IN XP OR IN VISTA?

Andrew: I'M USING, UM...

Leo Laporte: YOU'RE USING XP?

Andrew: XP.

Leo Laporte: YEAH.

I MEAN, YOU KNOW, VISTA HAS THIS
PROTECTIVE BROWSER MODE THAT
REALLY IS VERY, VERY SAFE AND
VERY GOOD.

SO HERE'S WHAT I WOULD SUGGEST.

KEEP USING FIREFOX BUT JUST USE

THE FIREFOX IE VIEW EXTENSION,
AND THIS IS REALLY COOL.

[Pop captions up]

Leo Laporte: YOU CAN'T GET
RID OF IE ON WINDOWS ANYWAY.
YOU ALWAYS HAVE INTERNET
EXPLORER, SO IE VIEW ALLOWS YOU
TO LAUNCH INTERNET EXPLORER FROM
WITHIN FIREFOX AS A TAB.

[Pop captions down]

Leo Laporte: IN FACT, EVEN
BETTER, IT ALLOWS YOU TO SAY,
"WHENEVER I VISIT THIS SITE,
MAKE THAT AN INTERNET EXPLORER
VIEW, NOT A FIREFOX VIEW."
SO YOU CAN ACTUALLY SAY,
"WHENEVER I GO TO THE SCHOOL
ATTENDANCE SITE, JUST OPEN A TAB
IN MY FIREFOX THAT'S USING IE."

Andrew: THAT'S SUPER!

I DIDN'T KNOW THAT EXISTED.

Leo Laporte: YEAH, IT'S REALLY COOL.
IT'S CALLED --
THERE'S ACTUALLY A COUPLE OF THEM.
THIS IS THE ONE I LIKE,
"IE VIEW" BY PAUL ROUB.

[Pop captions up]

Leo Laporte: ALL YOU HAVE TO
DO IF YOU'RE IN FIREFOX IS YOU
JUST GO TO --
LET'S SEE.
WHERE IS IT?
IT'S THE ADD-ON.

OH, I'M IN SAFARI.

THAT'S WHY I DON'T SEE IT RIGHT NOW.

(Laughing)

[Pop captions down]

Leo Laporte: I'LL GO TO FIREFOX.

YOU GO TO "TOOLS, ADD-ONS," AND

THEN "GET EXTENSIONS," AND YOU

CAN SEARCH FOR THE IE VIEW EXTENSION.

IT'S A VERY QUICK --

AS YOU KNOW, IE OR FIREFOX

EXTENSIONS ARE VERY EASY TO ADD,

SO JUST LOOK FOR "IE VIEW."

(Humming)

" I KNOW IT'S HERE SOMEWHERE "

HMM, OH, MAYBE IT KNOWS I'M ON A

MAC, AND IT WON'T LET ME DO IT.

Andrew: (Laughing)

Leo Laporte: SO HERE IT IS.

THIS IS FOR WINDOWS ONLY

OBVIOUSLY BECAUSE WE DON'T HAVE

INTERNET EXPLORER ON THE MAC,

IE VIEW.

IT'S ADD-ON 35.

(Lively digital music)

Leo Laporte: OKAY?

Andrew: THANK YOU VERY MUCH, LEO!

Leo Laporte: ARE YOU A TEACHER?

Andrew: YES, I AM.

Leo Laporte: WHAT DO YOU TEACH?

Andrew: WELL, RIGHT NOW I'M

TEACHING SPANISH.

Leo Laporte: OH, ISN'T THAT GREAT?

ISN'T THAT GREAT?

WHAT DID YOU TEACH BEFORE?

Andrew: PHYSICS AND MATHEMATICS.

Leo Laporte: OH, YOU'RE THE
KIND OF TEACHER I'D LIKE TO HAVE...

Andrew: (Chuckling)

Leo Laporte: A FUN TEACHER.

WELL, ANDREW, IT'S SO GREAT TO
TALK TO YOU.

AND WHAT GRADES ARE YOU TEACHING NOW?

Andrew: HIGH SCHOOL.

Leo Laporte: HIGH SCHOOL.

Andrew: MOSTLY FRESHMEN AND
SOPHOMORES.

Leo Laporte: OH, THAT'S GREAT.

WELL, KEEP UP THE GOOD WORK.
YOU'RE DOING THE MOST IMPORTANT
WORK THERE IS.

Andrew: WELL, THANK YOU VERY MUCH, LEO.

Leo Laporte: THANKS, ANDREW.

Andrew: I APPRECIATE IT.

Leo Laporte: ALL RIGHT, TAKE CARE.

Andrew: BYE-BYE.

Leo Laporte: BYE-BYE.

TEACHERS ARE SO IMPORTANT, YOU KNOW.

I THINK THAT --

WELL, I MEAN NONE OF US WOULD BE
HERE DOING WHAT WE DO IF IT
WEREN'T FOR SOME TEACHER WHO
TOOK THE TIME TO CULTIVATE OUR
BRAINS A LITTLE BIT.

SEAN IS HERE WITH A SHINY, AND
THESE ARE VERY SHINY, AREN'T THEY?
LOOK AT THESE.

Sean Carruthers: YES, VERY FUTURISTIC-LOOKING.

Leo Laporte: ALSO CLEAR.

WHAT ARE THEY?

I CAN TELL THEY'RE SPEAKERS,

RIGHT?

[Pop captions up]

Sean Carruthers: THESE ARE SPEAKERS, AND THESE ARE FROM

FERGUSON HILL, AND THEY TOOK THE

POSITION THAT A LOT OF PEOPLE

WILL GET THEIR COMPUTER ALL

SOUPED UP FOR MULTIMEDIA --

[Pop captions down]

Leo Laporte: RIGHT.

Sean Carruthers: BUT THEN

THEY WON'T PAY ATTENTION TO THE SPEAKERS.

Leo Laporte: SOUND IS SO IMPORTANT.

Sean Carruthers: SOUND IS VERY IMPORTANT.

IT'S HALF OF THE EXPERIENCE.

Leo Laporte: THIS IS A FIVE-WAY SYSTEM.

YOU'VE GOT... IT LOOKS LIKE

TWEETERS, MID-RANGE AND A

SUBWOOFER, RIGHT?

Sean Carruthers: YES.

Leo Laporte: OKAY.

Sean Carruthers: YEAH, SO ESSENTIALLY IT'S A STEREO PAIR,

AND IT'S SEPARATING THEM UP, AS YOU MENTION.

IT'S --

Leo Laporte: AND I LIKE THE PARABOLA BEHIND HERE.

Sean Carruthers: IT'S A

REALLY GREAT DESIGN, AND IT'S --

THEY SAY IT'S THE ONLY ONE WITH

THIS PARTICULAR HORN DESIGN.

Leo Laporte: (Laughing)

SO THIS IS A TWEETER HORN --

Sean Carruthers: YES.

Leo Laporte: AND ACTUALLY,
KLIPSCH'S, KLIPSCH SPEAKERS WERE
FAMOUS FOR THE HORNS, BUT THEY
SURE DIDN'T LOOK LIKE THAT.
THEY WERE BIG WOODEN CASES.
HOW DO THEY SOUND?

Sean Carruthers: THEY SOUND PRETTY GOOD.
I'VE ACTUALLY GOT A LITTLE BIT
OF A DEMO HERE.

Leo Laporte: WATCH OUT.
WE'RE GONNA ROCK YOU OUT HERE.
THIS IS GONNA BE LOUD.

("The Lab" theme music playing on speakers)

Sean Carruthers: SO YOU'VE GOT THE CONTROLS --

(Both talking at once)

[Pop captions up]

Leo Laporte: I'LL TELL YOU,
REALLY ROCK AND ROLL BASS.

(Volume increases)

Leo Laporte: NOW, IS IT VERY DIRECTIONAL?

SHOULD I SIT IN FRONT OF THE --

OH, YEAH, OH, YEAH, THAT MAKES A
BIG DIFFERENCE.

Sean Carruthers: AND WE CAN
EVEN CRANK UP THE BASS, TOO.

Leo Laporte: OH, MY GOODNESS!

(Bass sounds increase)

[Pop captions down]

Leo Laporte: THAT SOUNDS GREAT!
HOW MUCH ARE THESE, THOUGH?

Sean Carruthers: WELL, THERE'S THE RUB.

Leo Laporte: THEY'RE GONNA BE PRICEY, RIGHT?

Sean Carruthers: THERE'S THE RUB. I MEAN THIS IS AN AUDIO FILE SET, AND THE SPEAKER SET ITSELF, WHAT YOU'RE SEEING RIGHT HERE --

Leo Laporte: YEAH.

Sean Carruthers: IS \$649. THIS ADDS ANOTHER \$349.

Leo Laporte: SO IT'S A THOUSAND BUCKS.

Sean Carruthers: A THOUSAND FOR THE WHOLE SYSTEM, WHICH IS, WHEN IT COMES DOWN TO IT, NOT TERRIBLE FOR A SYSTEM THAT SOUNDS THIS GOOD.

Leo Laporte: WHEN WE BOUGHT STEREO SYSTEMS WITH DEDICATED SPEAKERS, 500 BUCKS A SPEAKER WASN'T UNHEARD OF, SO THIS IS NOT TOO TERRIBLY OUT OF THE RANGE. AND I SEE IT HAS A NICE AMPLIFIER. HOW MANY WATTS OF POWER ARE WE GONNA GET OUT OF THAT THING?

Sean Carruthers: OH, YOU KNOW, I'M NOT 100% SURE.

[Pop captions up]

Leo Laporte: IT LOOKS LIKE IT'S A PRETTY BIG AMP, SO I THINK WE'D GET A LOT OF VOLUME OUT OF THAT, AND IT HAS MULTIPLE CONNECTIONS FOR THE INPUT, SO YOU COULD CONNECT AN IPOD TO THIS AND A --

Sean Carruthers: YEAH, YEAH,

SO WE DO HAVE THE IPOD HERE
RIGHT NOW, AND IT DOES HAVE
ANOTHER ONE FOR REGULAR --

Leo Laporte: YOUR PROS AND CONS HERE.

Sean Carruthers: SO THE SOUND
QUALITY'S EXCELLENT, AND THE
DESIGN, AS YOU CAN SEE, IS BEAUTIFUL.

Leo Laporte: COOL!

Sean Carruthers: IT'S VERY COOL.
I WORRY, THOUGH, MAYBE IN
10 YEARS, IT'LL LOOK A LITTLE
BIT OUT OF PLACE, BUT WHAT THE HECK?
IT LOOKS GREAT NOW.

Leo Laporte: HOW ABOUT THE NEGATIVES?

Sean Carruthers: USED WITH
MP3 PLAYERS AND YOUR REGULAR
SOUND SYSTEM.

YEAH, IT IS VERY EXPENSIVE FOR A
SOUND SYSTEM THAT GOES ON YOUR
DESKTOP, AND THE SATELLITES HERE
ARE A BIT LARGE.

Leo Laporte: I WOULDN'T PUT
THIS ON YOUR DESKTOP.

(Laughing)

Sean Carruthers: NO.

Leo Laporte: I MEAN WHERE
WOULD YOU PUT THE COMPUTER?

Sean Carruthers: YOU WOULD
PROBABLY WANT TO PUT THESE OFF
TO THE SIDE SOMEWHERE.

Leo Laporte: YEAH, OR ON A SHELF OR --

Sean Carruthers: AND THEN THE
CABLES ARE LONG ENOUGH, YOU CAN

DO THAT.

[Pop captions down]

Leo Laporte: YEAH.

BUT, BOY, THEY'RE COOL-LOOKING.

I THINK YOU'D IMPRESS PEOPLE IF
THEY CAME IN AND THEY SAW THIS.
FROM FERGUSON.

Sean Carruthers: FERGUSON HILL, YES.

Leo Laporte: FERGUSON HILL.

[Pop captions up]

Sean Carruthers: THIS IS A
LEASE BREAKER IS WHAT THIS IS.

Leo Laporte: (Laughing)

YEAH, NO KIDDING!

ROCK OUT!

ALL RIGHT, COMING UP IN JUST A
LITTLE BIT, WE'RE GONNA TALK TO
BILL JELEN, MR. EXCEL!
HE'S GONNA SHOW US HOW TO DO
SOME SPECIAL DIAGRAMS IN
OFFICE 2007, USING THE NEW SMARTART.
BUT RIGHT NOW IT'S TIME TO TEST
YOUR TECH KNOWLEDGE.

HERE'S OUR QUICK QUIZ QUESTION
OF THE DAY.

WHEN DID THE iTUNES MUSIC STORE
FIRST GO ONLINE TO THE PUBLIC?

WAS IT 2003, EARLY 2004,
LATE 2004 OR 2008, APRIL 1st?

THAT'S A GOOD DAY.

WHAT DO YOU THINK?

I'LL TELL YOU WHAT.

STICK AROUND.

WE'LL TALK ABOUT IT WHEN

"THE LAB" CONTINUES.

(Driving digital music)

[Pop captions down]

COMMERCIAL

(Theme music playing)

Leo Laporte: WELCOME BACK TO "THE LAB."

MR. BILL EXCEL IS HERE.

HE IS THE KING.

"MR. BILL EXCEL?"

Bill Jelen: (Laughing)

Leo Laporte: MR. BILL JELEN IS HERE.

HE'S THE KING OF EXCEL.

I ALMOST SAID "MR. BILL EXCEL,
THE KING OF JELEN," WHICH WOULD
BE A WHOLE DIFFERENT THING.

HE IS THE GUY WHO WROTE THIS
BOOK, "CHARTS AND GRAPHS"

"FOR MICROSOFT OFFICE EXCEL 2007."

HE'S ALSO THE AUTHOR OF

"LEARN EXCEL FROM"

"MR. EXCEL," 900 PAGES,

EVERYTHING YOU'D EVER WANT TO

KNOW ABOUT EXCEL, AND IT'S

ABSOLUTELY FREE ON HIS WEBSITE,

mrexcel.com.

WE'LL TALK ABOUT THAT IN A SECOND.

RIGHT NOW WE'RE GONNA TALK ABOUT

DRESSING UP YOUR SPREADSHEETS

WITH OFFICE OR EXCEL 2007.

[Pop captions up]

Bill Jelen: THIS IS SOMETHING

NEW THAT THEY ADDED TO

POWERPOINT, WORD AND EXCEL 2007.

Leo Laporte: MM-HMM.

Bill Jelen: THEY CALL IT
SMARTART, AND IT'S BASICALLY
84 DIFFERENT KINDS OF BUSINESS
DIAGRAMS, VERY EASY TO CREATE
THEM AND JUST TO CREATE JUST
KNOCKOUT PRESENTATIONS EITHER IN
LIKE WORD, EXCEL OR POWERPOINT.

[Pop captions down]

Leo Laporte: NOW, WE'RE NOT
TALKING ABOUT THE DATA CHARTS
THAT YOU'VE CREATED WITH EXCEL.

Bill Jelen: NO.

Leo Laporte: YOU START BY
CREATING A DATA CHART, BUT THEN
THIS YOU DRESS IT UP WITH LATER,
OR YOU --

Bill Jelen: ACTUALLY, IT'S --

Leo Laporte: IT'S NOT EVEN FOR DATA CHARTS.

[Pop captions up]

Bill Jelen: YEAH, IT'S
COMPLETELY UNRELATED TO THE
CHARTING, AND THEY KIND OF
REALLY BLEW IT IN EXCEL, BUT I
HAVE A GREAT WORKAROUND FOR THAT.

Leo Laporte: OH, GOOD!

(Chuckling)

OKAY, WELL, LET'S TAKE A LOOK.

Bill Jelen: LET'S TAKE A QUICK LOOK.
THE FIRST THING YOU DO IS YOU GO
TO THE INSERT TAB OF THE RIBBON
AND THEN CHOOSE "SMARTART," ALL

RIGHT?

AND YOU CHOOSE --

THEY HAVE IT BASICALLY
CATEGORIZED INTO LIST CHARTS,
PROCESS CHARTS, CYCLE CHARTS, SO
IF YOU NEEDED TO ILLUSTRATE A
PROCESS --

Leo Laporte: RIGHT, OKAY.

Bill Jelen: HIERARCHY CHARTS,
WHICH ARE YOUR (Unclear)
CHARTS --

Leo Laporte: MM-HMM.

Bill Jelen: RELATIONSHIP
CHARTS -- THERE'S LOTS OF
INTERESTING THINGS, AND I'LL
SHOW YOU SOME OF THOSE --
PYRAMID CHARTS AND THEN SOME
BASIC MATRIX CHARTS.

Leo Laporte: OH, THIS IS NEAT, YEAH.

Bill Jelen: SO WE'LL CHOOSE
ONE OF THEM AND, LET'S SAY,
MAYBE THIS ONE HERE CLICK "OKAY."
AND IT ALMOST COMES UP WITH
SOMETHING THAT REMINDS ME OF
POWERPOINT --

Leo Laporte: RIGHT!

Bill Jelen: WHERE I CAN --
I HAVE LEVEL ONE AND LEVEL TWO --

Leo Laporte: AND YOU FILL IT
IN ON THE LEFT, AND IT FILLS IT
IN ON THE RIGHT.

Bill Jelen: EXACTLY.
SO THERE'S STEP 1, STEP 2,

STEP 3.

IF I NEED TO ADD A NEW SHAPE, STEP 4.

Leo Laporte: OH, IT JUST DOES IT.

Bill Jelen: AND THEN I CAN
DEMOTE SOMETHING TO BE A
LEVEL TWO SHAPE, SO WE MIGHT
HAVE STEP 1A, 1B --

Leo Laporte: OH, INTERESTING.

Bill Jelen: 1C, AND AS I GO, IT KEEPS --

Leo Laporte: OH, IT DOES LOOK
LIKE POWERPOINT.

Bill Jelen: EXACTLY!

IT LOOKS EXACTLY LIKE THAT, AND
IT KEEPS CHANGING THE ASPECT
RATIO OF ALL THE TEXT TO MAKE
SURE IT LOOKS GOOD.

Leo Laporte: RIGHT.

Bill Jelen: RIGHT?
SO WE BUILD OUR MESSAGE, AND
THEN WE GET TO GO IN AND CHANGE
SOME COLOURS, SO RATHER THAN
JUST HAVE A BORING BLUE, WE CAN
GO WITH ONE OF THE --

Leo Laporte: OH, LOOK, PURDY.

Bill Jelen: ONE OF THE COLOUR --

Leo Laporte: OH, YEAH.

[Pop captions down]

Bill Jelen: ALL RIGHT, AND SO
WE CHOOSE THAT.

AND THEN THEY BUILT I THINK IT'S
9, 14 DIFFERENT STYLES.

Leo Laporte: OH, INCLUDING 3D.

Bill Jelen: YEAH, SO BEST TO

MATCH THE DOCUMENT.

THESE ARE ALL 2D STYLES.

AND MY FAVOURITE IS HERE IN THE 3D.

IT KIND OF HAS THIS LITTLE GLASS EFFECT.

Leo Laporte: YEAH!

[Pop captions up]

Bill Jelen: AND I HAD AN OPPORTUNITY TO WRITE ABOUT THIS BEFORE THE PRODUCT CAME OUT, AND IT TURNS OUT THAT THE TECH EDITOR OF THE BOOK WAS THE GUY FROM MICROSOFT, THE PROJECT MANAGER.

Leo Laporte: OH, YOU'RE KIDDING!

Bill Jelen: AND I SAID THAT THIS NINTH STYLE, THE NINTH 3D STYLE IS PERFECT FOR WHEN YOU HAVE BAD NEWS.

Leo Laporte: (Laughing)

Bill Jelen: IF YOU HAVE --

Leo Laporte: TO CHEER EVERYBODY UP.

Bill Jelen: IF YOU HAVE BAD NEWS, NO ONE WILL BE ABLE TO READ ANYTHING IN THE CHART.

Leo Laporte: (Laughing)

Bill Jelen: HE COMES BACK FROM THE TECH EDITOR, AND HE SAYS, "THAT'S A LITTLE HARSH." I SAID, "YOU CAN'T SEE IN HERE."

Leo Laporte: YOU CAN'T SEE. IT'S JUST --

Bill Jelen: I MEAN IT LOOKS VERY COOL.

Leo Laporte: IT'S PRETTY, BUT

WHAT IS IT?

Bill Jelen: YEAH, NO ONE WILL
BE ABLE TO READ THIS.

SO I GO WITH --

I GO WITH EITHER THE SECOND OR
THIRD 3D STYLE --

Leo Laporte: MM-HMM.

Bill Jelen: AND --

Leo Laporte: THAT'S VERY
PRETTY AND YET LEGIBLE.

Bill Jelen: AND IF YOU THEN
WANT TO CHANGE YOUR MIND, WE CAN
JUST GO AND CHANGE THE LAYOUT
VERY EASILY.

Leo Laporte: OH, NEAT!

Bill Jelen: AND IT TAKES ALL
THE WORDS AND MOVES IT TO THE
NEW SPOT.

Leo Laporte: IT MIGHT NOT
MAKE A LOT OF SENSE IN THIS CONTEXT.

Bill Jelen: IN THIS PARTICULAR CASE, BUT --

Leo Laporte: DEPENDING ON YOUR DATA.

Bill Jelen: WITH 84 OF THEM,
VERY EASY TO DO.

Leo Laporte: RIGHT.

Bill Jelen: AND SO I HAVE A
GALLERY HERE OF A FEW DIFFERENT --

Leo Laporte: OH, LOOK!
WOW!

Bill Jelen: INTERESTING ONES.

Leo Laporte: "PRICE, LOCATION, QUALITY."

(Laughing)

[Pop captions down]

Bill Jelen: ONE OF THE LAST
ONES THEY ADDED WAS THIS COOL
LITTLE --

Leo Laporte: I LIKE THIS BALANCE BEAM.

Bill Jelen: THE BALANCE.

Leo Laporte: YEAH.

Bill Jelen: AND THE WAY THE
BALANCE WORKS --

I'VE SELECTED THE WRONG ONE HERE.

THE WAY THE BALANCE WORKS IS IF
YOU HAVE MORE BAD --

SO LET ME ADD SOME BAD ITEMS.

Leo Laporte: IT ACTUALLY -- IT ACTUALLY DOES IT!

Bill Jelen: IT TIPS THE OTHER WAY.

(Both laughing)

Bill Jelen: ISN'T THAT COOL?

Leo Laporte: WOW!

Bill Jelen: OKAY, SO HERE'S
WHERE THEY COMPLETELY BLEW IT.

Leo Laporte: OKAY.

Bill Jelen: I'M AN EXCEL GUY.

Leo Laporte: YEAH.

Bill Jelen: I CAN BUILD EXCEL
FORMULAS THAT DO AMAZING THINGS.

Leo Laporte: RIGHT.

[Pop captions up]

Bill Jelen: I SAID, "I WANT
THE TEXT FROM THE
SPREADSHEET --"

Leo Laporte: IN MY CHART.

Bill Jelen: IN THE -- YEAH.
I WANT IT TO BE LIVE UPDATING --

Leo Laporte: OF COURSE!

Bill Jelen: THEY SAID, "OH,
NO, IT DOESN'T DO THAT."

Leo Laporte: (Sighs)

Bill Jelen: I SAID, "WAIT A SECOND.
YOU'VE HAD SHAPES, FORMERLY
AUTOSHAPES --"

Leo Laporte: RIGHT.

Bill Jelen: RIGHT?

"-- IN EXCEL FOR 10 YEARS, AND I
COULD PUT A FORMULA IN THE AUTOSHAPE."

Leo Laporte: RIGHT.

Bill Jelen: "WHY CAN'T YOU DO THIS?"

"WE JUST DIDN'T HAVE TIME TO
HOOK IT UP," THEY SAID.

Leo Laporte: OH, INTERESTING.

Bill Jelen: OKAY, SO I WAS
TALKING TO THE PRODUCT MANAGER,
AND HE MENTIONED SOMETHING.
HE SAID, "WELL, YEAH, SELECT ONE
OF THE SHAPES, AND THEN HIT
CONTROL-A, AND THAT SELECTS ALL
OF THE SHAPES."

Leo Laporte: OKAY.

Bill Jelen: I SAID, "WAIT A SECOND.
WHAT WOULD HAPPEN IF I WOULD
COPY THOSE SHAPES AND GO TO A
BRAND NEW SPOT AND HIT
CONTROL-V TO PASTE?
WHAT DO I GET?"
HE SAYS, "OH, WE JUST CONVERT
THEM TO THE OLD-FASHIONED SHAPES."

Leo Laporte: AH!

Bill Jelen: "YOU CONVERT THEM

TO THE OLD-FASHIONED SHAPES?"

Leo Laporte: AND NOW THEY'RE ALIVE!

Bill Jelen: THAT'S PERFECT

BECAUSE NOW I CAN SELECT A

SHAPE, AND SO LET'S SEE.

MY FORMULA HERE IS IN E6.

TYPE "=".

I CLICK IN THE FORMULA BAR.

HANG ON.

CLICK "=E."

Leo Laporte: I'LL BE DAMNED,

HOT DIGGITY DANG.

Bill Jelen: "=E6," AND NOW I

HAVE A LIVE FORMULA.

Leo Laporte: WILL IT TAKE ANY

OF THE, ANY OF THE CHART STYLES,

EVEN THE 3D STYLES, OR DO YOU

HAVE TO --

Bill Jelen: SURE, YEAH, SO --

Leo Laporte: IT WILL?

Bill Jelen: I BUILD THE PER --

I BUILT MY PERFECT --

Leo Laporte: YOU BUILD IT

FIRST, SELECT IT, THEN PASTE IT IN --

Bill Jelen: PASTE IT IN.

Leo Laporte: AND IT'S IN AUTOSHAPES!

Bill Jelen: AND NOW --

YOU KNOW, SO WE HAVE A LITTLE --

Leo Laporte: THAT'S NOT A BAD WORKAROUND!

THAT'S A GOOD WORKAROUND.

Bill Jelen: NOT AT ALL.

IT'S VERY COOL.

Leo Laporte: YEAH.

Bill Jelen: SO I KIND OF HASSLED THEM.

Leo Laporte: DID THEY KNOW THAT WHEN --

Bill Jelen: NO, NO.

Leo Laporte: THEY HAD NO IDEA.

(Laughing)

Bill Jelen: NO, IT WAS --

I SAID, "WAIT A SECOND."

THAT MEANS THAT WE CAN DO THIS.

AND HE'S LIKE, "OH, YEAH, I BET

IT WOULD WORK."

Leo Laporte: OH, MY GOODNESS!

[Pop captions down]

Leo Laporte: ISN'T THAT FUNNY?

Bill Jelen: I WAS PRETTY

EXCITED BECAUSE THAT REALLY --

BEING ABLE TO PUT LIVE FORMULAS

IN THERE --

Leo Laporte: THAT'S KEY.

Bill Jelen: WE CAN DO SOME

REALLY POWERFUL THINGS IN EXCEL.

[Pop captions up]

Leo Laporte: WELL, OTHERWISE,

IT'S JUST A DRAWING PROGRAM, AND

WHY PUT IN EXCEL IN THE FIRST PLACE?

Bill Jelen: YEAH.

Leo Laporte: YOU WANT IT TO

DRESS UP ACTUAL DATA, WHICH MAY CHANGE.

Bill Jelen: RIGHT.

AND IN THEIR MIND, IT WAS A

POWERPOINT TOOL.

[Pop captions down]

Bill Jelen: THEY JUST ADDED

IN EXCEL AS AN AFTERTHOUGHT.

Leo Laporte: OH, I GET IT, I GET IT.

Bill Jelen: BUT, YOU KNOW,
ONCE I SEE IT IN EXCEL, IT'S
LIKE, HEY, WE NEED TO BE ABLE TO
PUT LIVE, LIVE DATA IN THERE.

Leo Laporte: RIGHT.

Bill Jelen: AND NOW WE CAN.

Leo Laporte: THAT'S THE
STRENGTH OF IT.

Bill Jelen: YEAH.

Leo Laporte: NEXT WE WANT TO
BE ABLE TO PUT THE LIVE DATA
BACK INTO POWERPOINT, BUT
THAT'S --
THAT'S ANOTHER SHOW.

(Laughing)

Bill Jelen: THAT'S ANOTHER DAY.

Leo Laporte: AND ANOTHER TIME.
ALL THE DETAILS ON THIS COME
FROM "CHARTS AND GRAPHS"
"FOR OFFICE EXCEL 2007."
THIS IS THE NEW ONE FOR THE NEW 2007.

Bill Jelen: RIGHT.

Leo Laporte: REMEMBER, YOU'VE
GOT TO GET THE RIGHT EDITION
BECAUSE THEY'VE CHANGED THE
SYSTEM VERY DRASTICALLY IN 2007.

Bill Jelen: THIS FEATURE'S
BRAND NEW IN EXCEL 2007.

Leo Laporte: YEAH.
SO THIS IS A GREAT CHOICE.
NOW, THIS IS PUBLISHED BY QUE.
AND, OF COURSE, BILL PUBLISHES

HIS OWN "LEARN EXCEL FROM"

"MR. EXCEL."

THE NEW 2007 EDITION IS OUT, AND
HE'S GIVING THIS ONE AWAY.

[Pop captions up]

Leo Laporte: NOW, OF COURSE,
WE ENCOURAGE YOU TO BUY IT IN
THE BOOKSTORES, AND IF YOU LIKE
IT, GIVE IT TO FRIENDS, BUT YOU
CAN ALSO DOWNLOAD IT TO TRY
BEFORE YOU BUY AT mrexcel.com.
HE WANTS TO GIVE AWAY
FIVE MILLION COPIES OF THESE,
AND I'M GONNA DO MY DARNEDEST TO
HELP YOU.

Bill Jelen: THANKS, LEO!

[Pop captions down]

Leo Laporte: I THINK THAT'S
REALLY GREAT.
GOOD FOR YOU, MR. EXCEL.
THANKS FOR COMIN' BY.
I APPRECIATE IT.

Bill Jelen: THANKS FOR HAVING ME.

Leo Laporte: ALL RIGHT.

Bill Jelen: ALL RIGHT.

[Pop captions up]

Leo Laporte: WE'RE GONNA TAKE
A BREAK AND COME BACK WITH MORE
OF YOUR CALLS IN JUST A LITTLE BIT.
WE'VE GOT KATE'S APP OF THE DAY,
AND DON'T FORGET WE'RE GONNA ADD
BLUETOOTH TO AN EEE PC.
IN FACT, IT MIGHT BE YOUR FIRST

CHANCE TO SEE AN EEE PC IN JUST
A LITTLE BIT.

STAY RIGHT HERE.

(Lively digital music)

SIX, FIVE TO COMMERCIALS, FOUR, THREE, TWO, ONE...

[MUSIC]

[Pop captions down]

COMMERCIAL

(Theme music playing)

[Pop captions up]

Kate Abraham: HEY, WELCOME BACK TO "THE LAB WITH LEO."

I'M KATE ABRAHAM, AND MY TIP OF
THE DAY IS BASICALLY A GREAT WAY
TO TRY AND DISCOVER ALL OF YOUR
FRIENDS ON THE VARIOUS SOCIAL
NETWORKING SITES, WHETHER IT BE
FACEBOOK, MYSPACE, TWITTER.

[Pop captions down]

Kate Abraham: IF YOU NEED TO
TRY AND FIND THEM ACTUALLY
ONLINE, wink.com IS WHERE YOU
NEED TO GO.

BASICALLY IT COLLABORATES ALL OF
THESE DIFFERENT SITES AND ALLOWS
YOU TO FIND THE PEOPLE JUST ON
ONE SITE ALONE.

IT'S SO MUCH EASIER TO USE THAN
SCROLLING THROUGH EVERYTHING.

SO IT'S CALLED wink.com.

[Pop captions up]

Kate Abraham: ALL YOU NEED TO
DO IS INPUT A NAME HERE, SO, FOR
INSTANCE, "LEO."

NOW AT THIS POINT, I CLICK
"SEARCH," AND WHAT'LL HAPPEN IS
IT'LL GO THROUGH THE OTHER SITES
AND TELL ME WHERE HE'S AVAILABLE.
SO, FOR INSTANCE, I HAVE IMDB, I
HAVE WIKIPEDIA, I HAVE YOUR
WEBSITE, I HAVE "THE LAB WITH
LEO LAPORTE," AND THE GOOD THING
IS IT'S ALL CLICKABLE, SO ONCE I
CLICK THROUGH, IT ACTUALLY TAKES
ME THROUGH TO YOUR SITES.

[Pop captions down]

Kate Abraham: SO IT'S CALLED wink.com.

Leo Laporte: WOW!

AND I'M IN THERE!

Kate Abraham: YEAH, AND THE
COOL THING IS WHAT YOU CAN DO AS
WELL IS YOU CAN ACTUALLY SET UP
A WINK ACCOUNT.

SO, FOR INSTANCE, I'M NOT IN
HERE BECAUSE I GUESS YOU HAVE A
LOT MORE KIND OF LIKE ONLINE
PRESENCE THAN I DO.

Leo Laporte: YEAH.

Kate Abraham: SO WHAT HAPPENS
IS IF I SET UP A WINK ACCOUNT, I
CAN THEN LINK THROUGH TO MY
FACEBOOK, TO THE LAB SITE.

Leo Laporte: SO YOU CAN SAY,
"OKAY, THESE ARE THE SEARCH
RESULTS, BUT REALLY THIS IS WHAT
I WANT PEOPLE TO GO TO."

Kate Abraham: EXACTLY.

AND YOU CAN ACTUALLY CREATE A PROFILE OBVIOUSLY SIMILAR TO FACEBOOK, WHERE YOU CAN OBVIOUSLY HAVE, YOU KNOW, YOUR HOMETOWN AND YOUR DATE OF BIRTH AND THAT KIND OF THING.

Leo Laporte: I'LL HAVE TO CHECK THAT OUT.

Kate Abraham: SO, YEAH, IT'S CALLED wink.com.

Leo Laporte: SO IT AGGREGATES YOUR SOCIAL NETWORKS.

Kate Abraham: INDEED IT DOES.

Leo Laporte: GOOD, BECAUSE I HAVE A LOT OF THEM, AND I NEED SOME AGGREGATION.

Kate Abraham: I THINK YOU DO.

Leo Laporte: THANK YOU, KATE!

Kate Abraham: (Laughing)

Leo Laporte: LET'S GET ANOTHER CALLER ON THE AIR.

Kate Abraham: FANTASTIC.

WE'RE GOING TO BRISBANE IN QUEENSLAND, AND WE HAVE MARK.

Leo Laporte: WHAT'S THAT?

"LEO LAPORTE CLUB."

WOW!

HEY, MARK!

(Laughing)

I DIDN'T EVEN KNOW THAT EXISTED.

HI, MARK.

HOW ARE YA?

Mark: I'M GOOD.

AND YOURSELF, LEO?

Leo Laporte: WELCOME.

I'M VERY GOOD.

WELCOME TO THE SHOW.

WHAT CAN I DO FOR YOU TODAY?

Mark: WELL, ABOUT FOUR MONTHS
AGO, I BOUGHT A VISTA INSTALLATION CD.

Leo Laporte: OKAY.

[Pop captions up]

Mark: IT'S JUST THE UPGRADE
VERSION, AND I ACTUALLY DROPPED
IT AND TOOK A CHIP OUT OF IT,
OKAY, SO WHEN I ACTUALLY PLACED
IT IN TO UPGRADE FROM XP, IT
WON'T ALLOW ME TO USE WINDOWS
MOVIE MAKER, AND EVERY COUPLE OF
MONTHS, IT'LL JUST DO A
BLUE SCREEN AT BEST.

Leo Laporte: (Laughing)

THAT'S NICE, THAT'S NICE.

[Pop captions down]

Mark: SO BASICALLY THE STORY
IS I WAS TESTING MY SON'S
COMPUTER, SO I JUST CHUCKED IT
ON, VISTA HOME PREMIUM, ONTO IT.

Leo Laporte: OKAY.

Mark: AND YOU KNOW HOW YOU GO
ONLINE, AND IT SAYS, YOU KNOW,
"DO YOU WANT TO --"

Leo Laporte: RIGHT, ACTIVATE IT, YEAH.

Mark: TO ACTIVATE IT.

WELL, IT ACTIVATED --

Leo Laporte: YEAH.

Mark: ON MY SON'S COMPUTER.
AND I THOUGHT, "GEE, THAT'S
STRANGE," BECAUSE EVERY TIME I

FORMAT, IT NEEDS ME TO GO ONLINE
AND ACTIVATE AGAIN, ENTER IN
THIS NUMBER AND TO TELL
MICROSOFT THEY'LL GIVE YOU A NEW NUMBER.

Leo Laporte: WELL, THE REASON
IS BECAUSE IT'S THE SAME
HARDWARE, AND IT GOES, "OH,
OKAY, IT'S THE SAME COMPUTER, SO
IT MUST BE MARK AGAIN."

Mark: YEAH, BUT THIS WAS A
COMPLETELY DIFFERENT COMPUTER
THAT I PLACED IT ON, SO --

Leo Laporte: OH, SO THE
HARDWARE IS DIFFERENT THIS TIME,
BUT IT'S STILL ACTIVATED EVEN
THOUGH IT'S DIFFERENT HARDWARE.

Mark: IT'S STILL ACTIVATING.

Leo Laporte: HUH.
WELL, YOU JUST GOT LUCKY.

(Laughing)

Mark: BUT I DID IT TO MY
WIFE'S COMPUTER, AND IT'S DONE
IT AGAIN, SO --

Leo Laporte: WHERE DID YOU
GET THIS COPY OF VISTA, JUST OUT
OF CURIOSITY?

Mark: SORRY?

Leo Laporte: WHERE DID YOU
GET THIS COPY OF VISTA?

Mark: OH, JUST FROM BIG W.

Leo Laporte: WAS IT A
SHRINK-WRAPPED COPY, YOU KNOW,
LIKE --

I MEAN THIS IS XP, BUT IT CAME
IN THE WINDOWS VISTA BOX WITH
THE HOLOGRAM AND ALL THAT?

Mark: YEAH, IT'S COMPLETE,
BUT IT ONLY COST LIKE \$200
BECAUSE IT WAS AN ACADEMIC VERSION.

(Fingers tapping box)

Leo Laporte: HMM... I THINK
WHAT YOU GOT WAS AN OEM VERSION
OF VISTA, SO --
WHICH IS NOT BEING --
SUPPOSED TO BE SOLD OVER THE
COUNTER LIKE THAT.

[Pop captions up]

Leo Laporte: SO IF YOU
IMAGINE YOU'RE DELL OR HP OR ANY
BIG COMPANY, YOU'RE NOT GONNA
BUY A DIFFERENT COPY OF VISTA
FOR EACH COMPUTER.
WHAT YOU DO IS YOU PAY MICROSOFT
A LICENSE FEE, YOU USE THE SAME
COPY OF VISTA, BUT IT'S CALLED
AN OEM EDITION THAT WILL
ACTIVATE ACROSS MANY, MANY
COMPUTERS, AND IT HAS AN OEM
SERIAL NUMBER.

[Pop captions down]

Leo Laporte: NOW, THESE ARE
VERY VALUABLE, ESPECIALLY TO
PIRATES, BECAUSE THEY CAN
INSTALL THEM ON A NUMBER OF
DIFFERENT COMPUTERS, SO THE
OEM'S KEEP VERY TIGHT REIN ON THESE.

THEY DON'T WANT THEM TO GET OUT.
I THINK, HOWEVER, THAT'S WHAT YOU GOT.
NOW, I'M NOT SURE HOW YOU GOT IT
OR HOW THEY GOT IT, BUT IF YOU
CAN ACTIVATE IT --
YOU'VE ACTIVATED IT NOW ON THREE
DIFFERENT MACHINES?

Mark: THREE DIFFERENT MACHINES.

Leo Laporte: AND NO, NO
COMPLAINTS, NOTHIN'?

Mark: NO COMPLAINTS, NOTHING.
IT JUST SAYS, "CONGRATULATIONS.
YOU ARE NOW ACTIVATED."

Leo Laporte: YEAH, I THINK
THAT'S PROBABLY WHAT YOU GOT IS --
SOMEHOW YOU GOT AN OEM VERSION.
I WOULD LOOK AT THE --
WAS IT A GENUINE MICROSOFT BOX
WITH THE LITTLE SEAL AND THE
LABEL ON IT?

Mark: YEAH, THE ONES THAT YOU
CAN'T OPEN.

IT SAYS "HACKER-PROOF."

YOU CAN'T EVEN OPEN

(Bleep-Bleep).

Leo Laporte: YOU CAN'T OPEN
THE BOX, YEAH.

Mark: OH, NO, NO, NO, IT JUST
TOOK A LOT OF WORK TO ACTUALLY
OPEN THE BOX.

Leo Laporte: I UNDERSTAND.

NO, I KNOW.

THAT'S THE ACTUAL ONE.

IT'S THAT BIG PLASTIC ICKY BOX.

YEAH, I MEAN I THINK YOU GOT A --

YOU JUST GOT LUCKY.

SO DON'T SPREAD IT AROUND.

(Laughing)

Mark: I THOUGHT IT MIGHT'VE

BEEN TO DO WITH THE CHIP I

ACTUALLY TOOK OUT OF THE ACTUAL

CD WHEN I DROPPED IT AND BECAUSE

IT SITS ON --

WHEN YOU'RE ACTUALLY INSTALLING THE --

Leo Laporte: YOU'RE USING THE

CD THAT GOT CHIPPED?

Mark: YEAH, THE CD ACTUALLY GOT CHIPPED.

I DROPPED IT.

Leo Laporte: AND YOU'RE STILL USING IT?

Mark: AND IT STILL WORKS.

Leo Laporte: HA!

Mark: AND THE ONLY THING THAT

WON'T WORK IS THE MICROSOFT

WINDOWS MAKER.

IT JUST SAYS, "GENERAL ACCESS DENIED."

Leo Laporte: THAT'S PROBABLY SOMETHING ELSE.

WHO NEEDS IT?

IT'S A JUNKY PROGRAM ANYWAY.

(Laughing)

(Indiscernible)

Leo Laporte: I WOULD GO OUT

AND GET ANOTHER MOVIE MAKER.

I DON'T THINK THE CRASHES HAVE

ANYTHING TO DO WITH THE CHIP MISSING.

THE TRUTH IS IT MUST BE CHIPPED

IN AN AREA WHERE THERE WAS NO DATA.

OTHERWISE IT WOULD'VE COMPLAINED.
DURING THE INSTALL PROCESS, IT
VERIFIES THE DISKS, SO CLEARLY
IT WAS AN UNIMPORTANT AREA THAT
GOT CHIPPED.

I THINK --

Mark: OH, THAT'S RIGHT.

AT THE START, IT SAYS --

Leo Laporte: WE SHOULD NOT --

(Indiscernible)

Leo Laporte: WE SHOULD NOT

QUESTION OUR GOOD LUCK HERE,
MARK.

YOU --

Mark: NO!

Leo Laporte: (Chuckling)

Mark: I ACTUALLY TRIED A FEW
PEOPLE, "WHY IS IT WORKING," AND
THEY JUST DON'T UNDERSTAND WHY.

Leo Laporte: I DON'T EITHER.

(Laughing)

WHAT I'M PRETTY SURE HAPPENED IS
YOU GOT AN OEM VERSION, PROBABLY
BY ACCIDENT.

THAT'S FINE.

YOU KNOW, TO PROTECT MICROSOFT,
I WOULDN'T INSTALL IT ON A BUNCH
OF DIFFERENT MACHINES.

YOU'RE NOT SUPPOSED --

YOU KNOW, VISTA'S ACTIVATION
SERVER IS REALLY PRETTY TOUGH,
AND THEY WILL ONLY LET YOU
INSTALL ON ONE MACHINE, UNLESS

YOU HAVE AN OEM VERSION, AND
THAT'S THE ONLY POSSIBLE EXPLANATION.
I DON'T THINK IT HAS TO DO WITH
THE CHIP.

I THINK IT'S JUST THAT IT'S THAT --
YOU GOT A VERSION, AN ODD
VERSION OF WINDOWS.

Mark: OH, OKAY.

Leo Laporte: HEY, BUT AS LONG
AS IT'S ACTIVATING, DON'T
SECOND-GUESS IT.

Mark: WELL, IF MICROSOFT'S
LISTENING OR WATCHING, I HAVE --
I'VE ACTUALLY TAKEN IT OFF THE
OTHER TWO COMPUTERS, SO DON'T
COME KNOCKING ON MY DOOR.

Leo Laporte: OF COURSE YOU HAVE!

(Laughing)

YOU'RE AN HONEST MAN!

I NEVER DOUBTED THAT.

(Funky digital music)

Leo Laporte: NO, THAT'S
REALLY GOOD NEWS.

YOU'RE PROBABLY RIGHT TO DO THAT
ACTUALLY BECAUSE YOU DON'T KNOW --
MICROSOFT CHECKS THE ACTIVATION
SERVER ALL THE TIME, NOT JUST
WHEN YOU REINSTALL IT, SO AT
SOME POINT, IT COULD ACTUALLY
STOP ACT --

SAY, "WHOA, WHOA, WHOA, WHOA!"
SO I WOULD RUN IT ON ONE MACHINE
JUST IN CASE.

HEY, THANKS FOR THE CALL, MARK.

THANKS FOR SHARING YOUR GOOD
LUCK WITH US.

Mark: YEAH, CAN I HAVE AN AUTOGRAPH?

Leo Laporte: OH, OF COURSE YOU CAN.
HANG ON THE LINE.

WE'LL GET YOUR ADDRESS, AND
WE'LL SEND YOU ONE OUT.

Mark: AND ONE FROM YEWELL'S
JEWELS, TOO, BECAUSE IT'S
USUALLY FREE SOFTWARE, AND I
REALLY LIKE IT.

Leo Laporte: YEWELL WILL SIGN
IT AS WELL, I PROMISE YOU.

Mark: THANK YOU VERY MUCH.

Leo Laporte: THANK YOU, MARK.
TAKE CARE.

IN FACT, LET'S WALK OVER AND SAY
HI TO RYAN YEWELL.

Ryan Yewell: YES.

Leo Laporte: SEE?
YOU'VE GOT A FAN!

Ryan Yewell: OH, WOW, THAT'S AWESOME.

Leo Laporte: YEAH, SO HE
WANTS AN AUTOGRAPH FROM YOU.
DO YOU HAVE PICTURESS YOU CAN
AUTOGRAPH?

Ryan Yewell: UH... A PICTURE OF ME?
I CAN FIGURE SOMETHING OUT, I GUESS.

Leo Laporte: KATE, CAN WE
JUST PASTE HIS FACE ON ONE OF MY PICTURES?

Kate Abraham: YEAH.

Leo Laporte: OKAY, WE'LL MAKE A SPECIAL ONE.

WE'LL PHOTOSHOP YOU IN.

Ryan Yewell: IT'S A WORK SAFE
PICTURE OF YOU, THOUGH, RIGHT?

(Laughter in control room)

(Keyboard clacking)

Leo Laporte: SURE, IT IS!

Ryan Yewell: OKAY, OKAY.

Leo Laporte: WHATEVER YOU SAY.
SO WHAT'S THE FREE FILE OF THE
DAY TODAY?

[Pop captions up]

Ryan Yewell: THIS ONE IS
ACTUALLY A REALLY, REALLY COOL ONE.

Leo Laporte: OOH, IT LOOKS NEAT.

Ryan Yewell: IT'S CALLED
RUNESCAPE, AND I DID A LITTLE
SEARCH ON WIKIPEDIA, AND
ACCORDING TO WIKIPEDIA, THERE'S
10 MILLION ACTIVE FREE ACCOUNTS.

Leo Laporte: YES, THIS IS AN ON --
MULTI, MASSIVELY MULTIPLAYER
ONLINE --

Ryan Yewell: MMO, YEAH, ORPGM
ROLE-PLAYING GAME, MASSIVELY
MULTIPLAYER ONLINE.

[Pop captions down]

Ryan Yewell: SO THE COOL
THING ABOUT THIS GAME IS IT'S
JAVA-BASED, SO IF YOU'RE AT
SOMEBODY'S HOUSE, YOU CAN JUST
LOG ONTO THE SERVER.
IT DOESN'T HAVE TO --
IT'S NOT ACTUALLY ON YOUR

COMPUTER.

IT'S ON THEIR SERVER.

AND IT'S TYPICAL STUFF.

YOU'VE GOT QUESTS, SO RIGHT NOW

I'VE GOTTA FIND AN EGG, SOME

FLOUR AND SOME MILK FOR THE

BAKER SO THAT HE CAN MAKE A

BIRTHDAY CAKE.

Leo Laporte: OH, IS THERE FIGHTING IS IT?

IS IT MORE KID-FOCUSSED OR --

Ryan Yewell: NO, IT'S --

YOU CAN MAKE MONEY BY FIGHTING.

SO LET'S SEE.

LET'S GO OVER HERE, AND LET'S

TRY TO FIND ALL THESE DUDES WHO

ARE HANGING OUT.

THIS GUY LOOKS LIKE I MIGHT BE

ABLE TO ATTACK HIM.

LET'S SEE HERE.

LET'S RIGHT-CLICK ON HIM.

(High-pitched beeping sounds)

Ryan Yewell: OH, NOW HE'S

GONNA BE FIGHTING ANOTHER DUDE.

SO LET'S GO --

Leo Laporte: OH, SO THAT'S ALL RIGHT.

Ryan Yewell: SO LET'S GO.

LET'S ATTACK THE GOBLIN HERE.

(Slapping sound)

Ryan Yewell: SO I'M GONNA

ATTACK THE GOBLIN, AND I'M GONNA

DIE PRETTY QUICK, SO IT'S --

(Fighting sound effects)

Ryan Yewell: YEAH, THERE'S FIGHTING.

YOU CAN MINE FOR GOLD.

YOU CAN MAKE YOUR OWN WEAPONS.

YOU CAN CAST SPELLS.

Leo Laporte: OH, FUN!

Ryan Yewell: YOU CAN GO ON QUESTS.

YOU CAN JOIN UP WITH FRIENDS.

Leo Laporte: IT LOOKS LIKE

IT'S AD-SUPPORTED, SO THAT'S WHY IT'S FREE.

Ryan Yewell: YEAH, THAT'S WHY IT'S FREE.

THERE'S ALSO --

YOU CAN UPGRADE TO A PAY ACCOUNT

IF YOU WANT.

THERE'S A FEW MORE MONSTERS AND

STUFF, BUT MY BROTHER-IN-LAW

PLAYS THIS ALL THE TIME.

HE FISHES.

HIS WIFE IS LIKE, "WHY ARE YOU

FISHING IN A GAME?"

Leo Laporte: SO WHY PAY FOR

"WORLD OF WARCRAFT" WHEN YOU CAN

PLAY RUNESCAPE?

Ryan Yewell: THERE YOU GO!

IT'S AN ALTERNATIVE.

Leo Laporte: AND IF YOU LIKE

TO FISH, YOU'LL FEEL RIGHT AT HOME.

Ryan Yewell: THERE YOU GO.

Leo Laporte: I KNOW PEOPLE

WHO FISH IN "WORLD OF WARCRAFT,"

TOO.

Ryan Yewell: YEAH?

Leo Laporte: THERE'S SOMETHING ABOUT FISHING.

Ryan Yewell: MAYBE IT'S JUST RELAXING.

DO THEY HAVE LIKE, YOU KNOW,

HAVE A DRINK THERE, AND THEY
JUST FISH ONLINE?

Leo Laporte: (Imitating sound
of fishing reel)

Ryan Yewell: YOU KNOW.

Leo Laporte: CAUGHT A FISH.

Ryan Yewell: THERE YOU GO.

Leo Laporte: (Imitating sound of fishing reel)

Ryan Yewell: AND THEN THEY
GO, AND THEY SELL THE FISH TO
SOMEBODY, AND THEY MAKE A LOT OF
MONEY, AND THEN THEY GO BUY LIKE
SOME ARMY, AND THEN THEY GO ON A
QUEST, AND THAT ARMOUR HELPS
THEM, AND IT GOES ON AND ON FOREVER.

Leo Laporte: I DON'T UNDERSTAND IT, BUT, HEY, YOU CAN
DO IT FOR FREE.

Ryan Yewell: YOU DON'T UNDERSTAND IT?
YOU HAVE A "WORLD OF WARCRAFT" ACCOUNT!

Leo Laporte: SHH!
MY WIFE COULD BE WATCHING.

Ryan Yewell: AH, OKAY.

Leo Laporte: THANK YOU, RYAN!

Ryan Yewell: YOU'RE WELCOME.

[Pop captions up]

Leo Laporte: IF YOU WANTED TO
FIND THAT, WHERE WOULD YOU GO?

Ryan Yewell: YOU'D GO TO
labwithleo.com, "FREE FILES."
THIS IS THERE AND MANY MORE,
100 AND SOMETHING.

Leo Laporte: YEWELL'S JEWELS,
HUNDREDS OF THEM!

ALL RIGHT, WE'RE GONNA TAKE A
BREAK, AND WHEN WE COME BACK,
FRANK LINHARES IS HERE.

HE HAS ONE OF THOSE --

HAVE YOU SEEN THESE?

THEY'RE SO CUTE!

Ryan Yewell: THE TRIPLE-E PC, YEAH.

Leo Laporte: YEAH, THE LITTLE ASUS EEE PC.

OH, I LOVE IT!

Ryan Yewell: HE'S MADE IT --

HE'S PUT SO MANY COOL THINGS ON

THAT THING.

Leo Laporte: HE'S HACKED THE HECK OUT OF IT.

Ryan Yewell: YES.

Leo Laporte: WE'LL TALK ABOUT

IT WHEN "THE LAB"

CONTINUES IN JUST A LITTLE BIT.

YOU STAY RIGHT HERE.

FIRST, THOUGH, ONE MORE CHANCE

TO TAKE OUR QUICK QUIZ QUESTION

OF THE DAY.

WHEN DID iTUNES GO ONLINE, THE STORE?

WAS IT 2003, EARLY 2004, LATE

2004 OR APRIL 1, 2008?

HMM... I DON'T KNOW.

DO YOU?

WE'LL FIND OUT WHEN

"THE LAB" CONTINUES RIGHT

AFTER THIS.

(Mellow digital music)

[Pop captions down]

COMMERCIAL

[Pop captions up]

(Mellow digital music)

Leo Laporte: WELCOME BACK TO "THE LAB."

BEFORE THE BREAK, WE ASKED YOU

WHEN iTUNES STORE WENT ONLINE,

AND I'M... I'M GONNA GUESS 2003,

BUT I'M NOT SURE REALLY.

YEAH, IT'S BEEN THAT LONG.

Frank Linhares: CORRECT.

Leo Laporte: FOUR YEARS.

[Pop captions down]

Leo Laporte: AND NOW THEY --

NOW THEY SELL TV SHOWS IN CANADA.

Frank Linhares: YEAH, FOR

SELECT CANADIAN NETWORKS.

Leo Laporte: SELECT CANADIAN NETWORKS.

Frank Linhares: SELECT CANADIAN NETWORKS.

Leo Laporte: HERE'S A SELECT

CANADIAN HIMSELF, FRANK

LINHARES, STRAIGHT OUT OF

TORONTO, TO TALK ABOUT THE

ASUS EEE PC AND HOW HACKABLE IT IS.

LOOK AT THIS LITTLE BABY!

Frank Linhares: MY NEW FUN TOY.

Leo Laporte: IT'S TWO POUNDS, VERY LIGHT.

Frank Linhares: IT WEIGHS NEXT TO NOTHING.

Leo Laporte: RUNS LINUX, ALTHOUGH YOU HAVE --

YOU PUT WINDOWS XP ON IT, WHICH

IS YOUR FIRST HACK.

Frank Linhares: THAT'S RIGHT.

Leo Laporte: YOU'VE PUT MORE RAM IN IT.

Frank Linhares: THAT'S RIGHT,

"AND" I'VE ADDED BLUETOOTH.

Leo Laporte: BLUETOOTH!

Frank Linhares: BLUETOOTH.

Leo Laporte: NOW, THE THING
THAT'S KIND OF NEAT ABOUT IT --
CAN I TURN IT ON?

Frank Linhares: SURE, ABSOLUTELY.

Leo Laporte: THE THING THAT'S
KIND OF NEAT ABOUT THIS IS IT
HAS A CAMERA, HAS SPEAKERS.
IT HAS A MICROPHONE BUILT-IN.
YOU CAN SKYPE WITH IT.

Frank Linhares: THAT'S RIGHT.

Leo Laporte: I MEAN IT'S A
PRETTY AMAZING LITTLE PC, AND
ONLY SEVEN INCHES, SO IT'S ONLY
800 BY 480, SO IT'S A LITTLE BIT
OF A SMALL SCREEN.

[Pop captions up]

Frank Linhares: BUT IT'S GOT
AN EXTERNAL VGA CONNECTOR, AND
YOU CAN GO UP TO 1600 BY 1200, I BELIEVE.

Leo Laporte: OH, REALLY?

Frank Linhares: YEAH, WITH
WINDOWS, RUNNING WINDOWS --

Leo Laporte: OH, THAT'S NEAT.
SO YOU CAN GET MUCH BIGGER.

Frank Linhares: 1600.

[Pop captions down]

Leo Laporte: YEAH, IT HAS A MODEM.
IT HAS WI-FI BUILT INTO IT.
I MEAN IT'S A PRETTY
SOPHISTICATED LITTLE COMPUTER FOR \$400.

Frank Linhares: YEAH, IT'S NOT A BAD DEAL AT ALL.

Leo Laporte: BUT EVEN MORE

FUN IF YOU CAN HACK IT.

SO WHAT HAVE YOU DONE TO THIS PUPPY?

Frank Linhares: UM...

Leo Laporte: WHAT HAVE YOU
DONE, FRANK?

Frank Linhares: I'VE BEEN
EXCLUSIVELY FOR THE PAST TWO
WEEKS USING THIS THING.

Leo Laporte: REALLY?

Frank Linhares: RELIGIOUSLY.

Leo Laporte: INSTEAD OF A LAPTOP.

Frank Linhares: INSTEAD OF A LAPTOP.

Leo Laporte: AND YOU FIND IT'S OKAY?

[Pop captions up]

Frank Linhares: IF I'M JUST
DOING MAIL AND READING MY FEEDS
AND SURFING THE INTERNET, IT IS
GREAT, I MEAN, WATCHING VIDEOS,
EVERYTHING.

SO THE PROBLEM, THOUGH, IS YOU
ONLY GET 512 MEGS OF RAM.

Leo Laporte: RIGHT.

[Pop captions down]

Frank Linhares: WHICH IS NOT A LOT.

Leo Laporte: IT'S HARD TO RUN WINDOWS IN THAT.

Frank Linhares: IT IS VERY
HARD TO RUN WINDOWS, ESPECIALLY
IF YOU DON'T WANT TO RUN WINDOWS --

Leo Laporte: AND THIS DOESN'T
HAVE A HARD DRIVE ON IT.
THIS JUST HAS A FLASH DRIVE, SO
YOU DON'T WANT TO SWAMP THE FILE
BECAUSE IT'LL BURN OUT THE

FLASH DRIVE.

Frank Linhares: THAT'S RIGHT.

AND I REALLY WISH THIS HAD SOME
SORT OF BUILT-IN EDGE OR eVIDEO,
BUT IT DOESN'T --

Leo Laporte: NO.

Frank Linhares: SO THE NEXT
BEST THING IS ADDING BLUETOOTH,
SO I CAN USE MY BLACKBERRY, OR
YOU CAN USE YOUR TRIO OR
ANYTHING AS A DIAL-UP NETWORKING
TO THE eVIDEO OR THE EDGE
NETWORK, WHICHEVER --

Leo Laporte: NOW, YOU
PROBABLY COULD GET A BLUETOOTH
USB CONNECTOR.

Frank Linhares: YOU COULD,
BUT THEN THAT KIND OF RUINS THE
FUN FACTOR OF HAVING SOMETHING --

Leo Laporte: WHY DO THAT?
THAT'S TOO EASY.

Frank Linhares: NOW, I'M NOT
GONNA TAKE THIS THING APART HERE
BECAUSE IT'S GONNA TAKE LIKE
20 MINUTES.

THERE'S LIKE 18,000 SCREWS.

Leo Laporte: BUT IT IS DOABLE.

Frank Linhares: IT IS DOABLE.

Leo Laporte: IT WILL VOID
YOUR WARRANTY, WHICH YOU'LL BE --
[Pop captions up]

Frank Linhares: YOU WILL
ABSOLUTELY VOID YOUR WARRANTY.

Leo Laporte: THERE'S THE CIRCUIT BOARD.

Frank Linhares: THERE'S THE CIRCUIT BOARD.

Leo Laporte: YOU ACTUALLY
TOOK THE MOTHERBOARD OUT?

Frank Linhares: I TOOK THE MOTHERBOARD OUT.
NOW, THIS THING HAS --

[Pop captions down]

Frank Linhares: IT HAS TWO
MINI PCI CONNECTORS INSIDE OF IT.

(Drill buzzing)

Frank Linhares: ONE OF THEM'S
BEING USED BY THE WIRELESS CARD
BECAUSE IT'S GOT BUILT-IN WI-FI --

Leo Laporte: MM-HMM.

Frank Linhares: AND THE OTHER
ONE'S COMPLETELY FREE, SO --

Leo Laporte: UNUSED.

Frank Linhares: UNUSED.
THERE'S NO CONNECTOR, BUT IT'S
ON THE MOTHERBOARD.

(Drill buzzing)

Leo Laporte: AND WHEN YOU SEE
THAT, FRANK LINHARES GOES, "HMM,
WHAT COULD WE USE THAT FOR?"

Frank Linhares: SO, USING A
MULTIMETER AND A SCOPE, I WENT
AROUND AND POKED AND PRODDED
UNTIL I FOUND THE TWO --
WHAT'S CALLED THE USB PLUS AND
NEGATIVE, THE ACTUAL THAT
CARRIES THE DATA BACK AND FORTH.

Leo Laporte: ON THE MOTHERBOARD?

Frank Linhares: ON THE MOTHERBOARD.

FINDING THE ACTUAL POWER FOR THE
UNIT, AS YOU CAN SEE HERE --
IT'S REALLY HARD TO GET IN
CLOSE, BUT THEY'RE TINY LITTLE POINTS.

Leo Laporte: OH, MY GOODNESS.
YOU MUST BE VERY GOOD AT SOLDERING.

Frank Linhares: YEAH, I'VE HAD A LOT OF PRACTICE.
LET'S JUST PUT IT THAT WAY.

AND TO FIND THE ACTUAL
FIVE VOLTS ON THE MOTHERBOARD IS
NEXT TO NOTHING.

SO WHAT I DID IS I WENT OUT AND
BOUGHT ONE OF THESE TINY LITTLE
BLUETOOTH, YOU KNOW, USB KEYS.

Leo Laporte: THE ONE YOU WOULD ADD TO THIS.

Frank Linhares: THE ONE YOU WOULD ADD WITH IT.

Leo Laporte: BUT YOU TOOK IT APART.

Frank Linhares: CRACKED THE SHELL APART.
I TOOK THE --

Leo Laporte: AND IT'S JUST A
LITTLE CIRCUIT CARD IS ALL IT IS.

Frank Linhares: THAT'S ALL IT IS.
I UNSOLDERED THE USB CONNECTOR
FROM IT, AND THEN WITH THE
MOTHERBOARD COMPLETELY REMOVED --

Leo Laporte: HERE, YOU KNOW
WHAT WE NEED TO DO?
LET'S TURN IT HERE SO THEY CAN
GET THE SHOT.

OH, NOW THEY'RE CHANGING ON ME.
SO LET ME POINT OUT THIS.

SO THIS IS THE US --
THIS IS THE BLUETOOTH CARD RIGHT HERE.

Frank Linhares: THAT IS CORRECT.

Leo Laporte: NOW, YOU HAD TO
SOLDER THESE LEADS TO THOSE
POINTS ON THE MOTHERBOARD THAT
YOU FOUND EARLIER.

Frank Linhares: THAT'S RIGHT.
SO THESE LEADS WERE WHERE THE
ACTUAL USB CONNECTOR RESIDED ON
THE LITTLE USB KEY, THE
BLUETOOTH USB KEY, AND FOLLOWING
FOUR WIRES OUT OF THERE, I
SOLDERED THEM DIRECTLY TO THE
MOTHERBOARD --

Leo Laporte: (Snickering)

Frank Linhares: IN THAT EXACT
LOCATION THERE.

Leo Laporte: NOW, BECAUSE
YOU'RE RUNNING WINDOWS XP, IT
KNEW ABOUT THE THING.
YOU DIDN'T --

Frank Linhares: LINUX, LINUX
FOUND IT, TOO.

Leo Laporte: LINUX, TOO, SO
YOU DIDN'T HAVE TO INSTALL ANY DRIVERS.

Frank Linhares: NO, YOU DON'T, BECAUSE IT'S A STANDARD
STACK, RIGHT?

THE USB OR THE BLUETOOTH STACK
IS STANDARDIZED.
EVERY --

Leo Laporte: EVERYBODY HAS IT.
EVEN THIS (Unclear) LINUX, IT
COMES ON THIS.

Frank Linhares: EVERYONE DOES, EVERYONE DOES.

SO THIS WAY, NOW I'VE GOT
BLUETOOTH FUNCTIONALITY, SO WHEN
I FIRE IT UP, I CAN CONNECT TO
MY BLACKBERRY, USE MY BLACKBERRY
AS A MOBILE DEVICE.

Leo Laporte: CAN YOU PUT GPS IN THIS NEXT?

Frank Linhares: UH, YEAH, I'M SURE I COULD.

Leo Laporte: (Laughing)

Frank Linhares: ACTUALLY, WHAT I WANTED TO DO, AND I
COULDN'T DO IT FAST ENOUGH OR
GET THE PART, IS YOU CAN GET
THOSE LITTLE HITACHI MICRODRIVES.
I DON'T KNOW IF YOU'VE EVER SEEN THEM.

Leo Laporte: YEAH, YEAH, YEAH.

Frank Linhares: THEY'RE ABOUT
TWO INCHES BY TWO INCHES --

Leo Laporte: YEAH.

Frank Linhares: AND YOU GET 20 GIGS INSIDE.

Leo Laporte: YOU COULD PUT A
HARD DRIVE IN HERE.

Frank Linhares: YOU COULD PUT
A HARD DRIVE IN THERE INSTEAD.

Leo Laporte: BECAUSE IT'S A PCI BUS.
OH, THAT WOULD BE AN INTERESTING HACK.

Frank Linhares: WELL, THEY'RE
USB-BASED, SO IT'S THE EXACT
SAME PRINCIPLE.

I JUST --

Leo Laporte: OH!

Frank Linhares: I MEAN I CAN ONLY PUT ONE INTERNAL USB DEVICE --

Leo Laporte: SO YOU HAVE TO
FIGURE OUT WHAT YOU WANT TO --

Frank Linhares: THAT'S RIGHT.

BUT WHAT I COULD DO IS YOU COULD STILL --
I MEAN THERE'S STILL THREE USB DEVICES.
YOU COULD STILL SOLDER FROM THE
INSIDE, EXCEPT I MEAN YOUR
USB PORTS WOULD BECOME NULL AND
VOID, BUT NEVERTHELESS...

Leo Laporte: (Laughing)

SEAL IT UP.

I'M NERVOUS WITH THE THING LYING
OPEN LIKE THIS.

LET'S RESUSCITATE THE PATIENT
AND SEE HOW IT WORKED.

SO THEN YOU CAN CONNECT IT --
ACTUALLY, IF YOU HAD A LITTLE
BLUETOOTH GPS DONGLE, YOU COULD
USE GOOGLE MAPS --

Frank Linhares: ABSOLUTELY, ABSOLUTELY.

(Indiscernible)

Leo Laporte: SO YOU ACTUALLY --
IN A WAY, YOU HAVE ADDED GPS.

Frank Linhares: YEAH!

WELL, I WISH I --

I NEVER THOUGHT OF THAT, BUT MY
NEXT --

I THINK MY NEXT PROJECT WILL BE
ACTUALLY ADDING GPS TO HERE.

Leo Laporte: I WANT TO SEE
YOU ADD A BIGGER BATTERY,
BECAUSE THAT'S THE ONE THING I
DON'T LIKE ABOUT THIS IS THERE'S
ONLY A COUPLE HOURS BATTERY LIFE.

Frank Linhares: YOU KNOW WHAT I FIND?

Leo Laporte: YOU CAN LIVE WITH THAT?

Frank Linhares: I CAN LIVE WITH THAT.

I MEAN I CAN LIVE WITH THIS.

Leo Laporte: \$400, ASUS EEE PC.

Frank Linhares: TRIPLE-E PC.

Leo Laporte: BIGGER SCREEN.

SOME PEOPLE DIDN'T LIKE THE KEYBOARD.

IT DOESN'T BOTHER ME, BUT A
BIGGER SCREEN WOULD HELP, A
LITTLE WIDER SCREEN.

Frank Linhares: A BIGGER SCREEN WOULD HELP.

YOU KNOW WHAT?

FOR SURFING THE INTERNET,
READING E-MAIL --

Leo Laporte: YOU KNOW, IT'S SMALL.

YOU COULD ALMOST PUT IT IN YOUR POCKET.

Frank Linhares: WATCHING VIDEOS --

Leo Laporte: YEAH.

Frank Linhares: I MEAN IT'S GREAT.

AND NOW THAT I'VE GOT THE
BLUETOOTH FUNCTIONALITY, I CAN,
I CAN SURF THE INTERNET WHEREVER I AM.

(Quiet digital music)

Leo Laporte: WHEREVER HE IS.

[Pop captions up]

Frank Linhares: I'VE GOT
PICTURES OF ALL THIS, AND ON THE
digitalunderground.tv VIDEOCAST,
WE'VE GOT A DETAILED VIDEO, STEP
BY STEP --

Leo Laporte: OH GOOD!

WE CAN WATCH HOW TO DO THAT.

Frank Linhares: EXACTLY, REALLY DETAILED.

Leo Laporte: IF YOU'RE CRAZY

ENOUGH TO WANT TO DO IT, FOLLOW
IN FRANK'S FOOTSTEPS.

Frank Linhares: IT'S NOT CRAZY; IT'S EASY.

[Pop captions down]

Leo Laporte: digitalunderground.tv, THAT'S
THE PLACE TO GO.

THANK YOU, FRANK LINHARES, FOR
COMING ALL THIS WAY TO SHOW US
YOUR GREAT HACKS.

I LOVE IT.

WE'LL WRAP IT UP WITH A FINAL
WORD RIGHT AFTER THIS.

STAY RIGHT HERE.

(Drill buzzing)

(Theme music playing)

COMMERCIAL

(Theme music playing)

Leo Laporte: SO WHAT DO YOU
THINK OF THAT LITTLE THING?

IT'S PRETTY CUTE, HUH?

Kate Abraham: I THINK IT'S A
PRETTY COOL IDEA.

Leo Laporte: YEAH, THE LITTLE, THE LITTLE, CUTE LITTLE
COMPUTER.

I LIKE IT, AND FRANK'S GOT ALL
SORTS OF HACKS FOR IT.

[Pop captions up]

Leo Laporte: I MEAN YOU'VE
PROBABLY SPENT MORE THAN YOU
SPENT INITIALLY ON THAT THING,
ADDING MEMORY, ADDING BLUETOOTH,
ADDING ALL THAT STUFF.

NOW I HAVE TO GO HOME AND PLAY

WITH MINE.

Kate Abraham: DON'T BREAK IT.

[Pop captions down]

Leo Laporte: WELL --

Kate Abraham: DON'T VOID YOUR WARRANTY.

Leo Laporte: I DON'T --

YOU KNOW, I DON'T THINK I'LL DO
ALL THE THINGS THAT FRANK DOES TO HIS.

(Theme music playing)

Frank Linhares: I'LL DO IT FOR YOU.

SEND IT TO ME.

Leo Laporte: WELL, YOU KNOW, I KNOW...

Kate Abraham: (Laughing)

Leo Laporte: YOU KNOW, I'VE HACKED STUFF.

I'VE FOLLOWED IN YOUR FOOTSTEPS.

[Pop captions up]

Leo Laporte: YOU KNOW, THE
APPLE TV, I TRIED TO FOLLOW, AND
I MESSED IT UP COMPLETELY.

Kate Abraham: YES.

Leo Laporte: I'M GONNA KEEP --
I'M GONNA USE IT THE WAY IT IS.
THAT'S FINE.

THAT'S FINE WITH ME.

I CAN LIVE WITH THAT.

IF YOU WANT TO BE ON THE SHOW,

WE'D LIKE YOU TO CALL US.

WE REALLY WOULD.

TO BE PART OF THE SHOW, ALL
YOU'VE GOTTA DO IS GO TO THE WEBSITE.

Kate Abraham: YES,

labwithleo.com, FORWARD SLASH techquestions.

SUBMIT TO THE FORM THERE, I WILL

CALL YOU, GET YOU ON THE SHOW,
AND WE WILL SOLVE YOUR TECH
PROBLEMS.

Leo Laporte: WELL, WE'LL TRY.

Kate Abraham: WE WILL SOLVE IT!

[Pop captions down]

Leo Laporte: OH, OKAY.

Kate Abraham: GUARANTEED.

(Both laughing)

Leo Laporte: THANKS FOR JOINING US.

WE'LL SEE YOU NEXT TIME.

Kate Abraham: THANK YOU.

Leo Laporte: BYE-BYE!

[MUSIC]

(Greedy theme plays,
coins clinking)

[Pop captions up]

\CLOSED CAPTIONING

\PERFORMED BY:

\BROADCAST CAPTIONING &

\CONSULTING SERVICES INC.

\www.closedcaptioning.com

[Pop captions down]

(Rogers theme plays)