

[Pop captions up]

Steve Gibson: WINDOWS VISTA BRINGS A TON OF NEW DIGITAL RIGHT MANAGEMENT COPY PROTECFEATURES. SOME GOOD. MOST BAD. [Pop captions down]

Steve Gibson: WE'LL GIVE YOU THE WHOLE SCOOP TODAY ON THE LAB WITH LEO. [Theme music playing] [Pop captions up]

Leo Laporte : I GOT A PIZZA HERE FOR A SEAN CARUTHERS. IS THERE A SEAN CARUTHERS IN THE HOUSE? [Pop captions down]

Leo Laporte : SEAN CARUTHERS? OH HERE'S YOUR PIZZA HERE. I'M SORRY I GOT A LITTLE HUNGRY AND HAD TO EAT ONE OF THE SLICES, I HOPE YOU DON'T MIND. SEAN MISSED LUNCH.

Sean Caruthers: THIS PIZZA WAS LIKE 31 MINUTES.

Leo Laporte : [Laughing] YOU GET IT FREE. IT'S ABSOLUTELY FREE SEAN! ENJOY. POOR GUY, DIDN'T GET LUNCH.

Kate Abraham : WHERE'S MY PIZZA?

Leo Laporte : YOU WANT A PIZZA? I'LL BE RIGHT BACK. [Pop captions up]

Leo Laporte : WE'LL GET YOU PIZZA. WE GOT PLENTY OF PIZZA.

Kate Abraham : I'LL TRADE YOU FOR A CLIPBOARD.

Leo Laporte : OKAY HOW ABOUT THAT. [Pop captions down]

Leo Laporte : KATE IS HERE, KATE ABRAHAM TO TELL US--.

Kate Abraham : NO GREEN PEPPERS.

Leo Laporte : YOU DON'T LIKE GREEN PEPPERS? I'LL MAKE A NOTE OF THAT FOR THE FUTURE. KATE ABRAHAM IS GETTING OUR CALLS TOGETHER WHILE WE TAKE A LOOK AT WHO WE'VE GOT. STEVE GIBSON'S GOING TO BE HERE, YOU SAW HIM AT THE BEGINNING. WE'RE GOING TO TALK ABOUT THE COPY PROTECTION THAT'S BUILT INTO VISTA AND IS THAT GOING TO BE A PROBLEM FOR YOU? AND I'M REALLY GLAD THAT ILLIAD IS HERE. J.D. FRAZER DOES A GREAT ONLINE COMIC STRIP CALLED USER FRIENDLY. WE HAD HIM ON THE SCREENSAVER SOME YEARS AGO. HE'S TALKING ABOUT HOW YOU CAN DO YOUR OWN COMIC STRIP, BYPASS THE SYNDICATES, BYPASS THE NEWSPAPERS AND DO

IT ALL YOURSELF ONLINE. THAT'S GOING TO BE A LOT OF FUN. BUT WE DO HAVE A CALL.

Kate Abraham : WE DO INDEED. WE HAVE THE LOVELY MIKE FROM KENTFIELD, NOVA SCOTIA ON THE LINE.

Leo Laporte : IS HE REALLY LOVELY?

Kate Abraham : HE'S LOVELY.

Leo Laporte : HE'S LOVELY.

Kate Abraham : HE'S READY TO GO.

Leo Laporte : MIKE YOU'RE LOVELY. Mike: THANK YOU.

Leo Laporte : WELCOME TO THE LAB WITH LEO. WHAT CAN I DO FOR YOU SIR? [Pop captions up] Mike: HI, I'M TRYING TO SETUP A WIRELESS NETWORK IN MY HOME AND I WAS USING THE WINDOWS VERSION OF THE WIRELESS NETWORK SETUP. [Pop captions down] Mike: AND UNFORTUNATELY AFTER THE FIRST STEP OF PUTTING THE INFORMATION ON A USB FLASH DRIVE, IT ASKED FOR ME TO PUT MY USB FLASH DRIVE INTO THE MODEM AND UNFORTUNATELY MY MODEM DOES NOT HAVE A USB FLASH DRIVE.

Leo Laporte : IGNORE ALL OF THAT. ALL THAT STUFF IS SUPPOSED TO MAKE IT EASIER. WHAT IT'S DOING, ALL IT'S DOING, THERE'S NOTHING SPECIAL IT'S PUTTING ON THAT USB. IT USED TO BE A FLOPPY BY THE WAY. IT'S JUST PUTTING THE SETTINGS ON THERE. BUT THE TRUTH IS, THE SETTINGS ARE SO DOG SIMPLE THAT YOU DON'T REALLY NEED THEM. LET ME WALK IT THROUGH FOR YOU. WERE YOU TURNING ON ENCRYPTION? Mike: UM I TRIED TO DO IT BOTH WAYS. I HAD ENCRYPTION ON AT THE BEGINNING AND THEN I TURNED IT OFF SO I COULD TRY IT AGAIN--

Leo Laporte : DID IT WORK? DID IT WORK THE FIRST TIME? Mike: NO. I DID SKIP THAT STEP AND I PUT IT INTO MY SECOND PC AND IT DIDN'T INSTALL.

Leo Laporte : I THINK IT'S BETTER DOING IT BY HAND. MANUFACTURERS ARE DOING THIS. WE HAD A CALL YESTERDAY ABOUT THIS NET MAGIC THING WHICH IS SOFTWARE THAT D-LINK DISTRIBUTES TO SUPPOSEDLY MAKE IT EASIER. AND IF YOUR SET UP IS VERY KIND OF STRAIGHT FORWARD AND EXACTLY AS THEY EXPECT IT TO BE, THEN YEAH, IT'S EASIER, BUT DEViate ONE MILLIMETRE, LIKE SAY YOU DON'T HAVE A USB PORT ON YOUR CABLE MODEM, NONE OF IT WORKS! I THINK IT'S A RELIANCE ON A SAFETY NET THAT CAN REALLY GET IN THE WAY MORE THAN-- YOU GET TANGLED UP IN THE NET INSTEAD OF SAVING YOU. SO LET'S TALK ABOUT WHAT YOU WOULD DO. THE FIRST THING YOU'RE GOING TO DO, YOU CAN DO IT BY HAND, IS GO INTO THE WIRELESS ROUTER. YOU USE YOUR BROWSER TO DO THAT. YOU GENERALLY, BY THE WAY, THE FIRST TIME YOU DO THIS, IT'S EASIER IF YOU'RE CONNECTED, PHYSICALLY. DO YOU HAVE A PHYSICAL PORT, ETHERNET PORT YOU CAN CONNECT TO ON THE ROUTER? Mike: FOR THE--

Leo Laporte : FOR THE COMPUTER. Mike: YEAH THE FIRST COMPUTER BUT THE OTHER COMPUTERS ARE--

Leo Laporte : WIRELESS. Mike: YEAH.

Leo Laporte : THAT'S FINE. ALL YOU NEED IS ONE CAUSE YOU'RE GOING TO CONFIGURE IT WHILE IT'S WIRED. AND THEN ONCE IT'S CONFIGURED, YOU UNPLUG ALL THE WIRES EXCEPT THE ONE WITH THE CABLE MODEM OBVIOUSLY OR THE DSL MODEM BUT IT'S JUST EASIER TO CONFIGURE BECAUSE YOU DON'T HAVE TO HAVE THE WIRELESS WORKING. [Pop captions up]

Leo Laporte : SO YOU CONNECT ONE COMPUTER TO YOUR-- IT DOESN'T MATTER WHICH COMPUTER, TO THE ROUTER. THE ROUTER IS ALREADY CONNECTED TO THE MODEM, RIGHT? [Pop captions down]

Leo Laporte : AND YOU SET UP THE ROUTER. THE ROUTER INSTRUCTIONS WILL SAY SOMETHING LIKE "GO TO 192.168.1.1 ON YOUR BROWSER". AND YOU'LL GO IN THERE AND THERE'S REALLY NOT MUCH TO DO. IN FACT STEVE GIBSON HAS SPENT A LOT OF TIME, WE'VE TALKED MANY TIMES ABOUT WHAT YOU SHOULD DO TO CONFIGURE A WIRELESS ROUTER AND THERE'S FOUR THINGS THAT I CONSIDER IMPORTANT TO DO. YOU TELL ME STEVE IF I'M RIGHT. FIRST AND FOREMOST, YOU WANT TO CHANGE THE PASSWORD. THE DEFAULT PASSWORD ON THAT ROUTER IS KNOWN TO EVERY HACKER IN THE WORLD SO IF YOU USE A DEFAULT PASSWORD, IT MAKES YOU VERY VULNERABLE. SECONDLY YOU WANT TO TURN OFF WHAT STEVE CALLS UNIVERSAL PLUG AND PLAY.

Steve Gibson: YEAH.

Leo Laporte : YOU WANT TO DESCRIBE WHY HE'S TURNING THAT OFF?

Steve Gibson: UNIVERSAL PLUG AND PLAY ALLOWS SOFTWARE ON YOUR COMPUTER TO OPEN UP PORTS FROM THE OUTSIDE OF YOUR ROUTER TO ALLOW UNSOLICITED TRAFFIC TO COME BACK IN. THAT'S NOT SOMETHING YOU WANT. AND THAT'S NOT SOMETHING YOU NEED.

Leo Laporte : IT'S CONVENIENT FOR MICROSOFT BECAUSE THEN IF YOU INSTALL MICROSOFT MESSENGER, IT CAN AUTOMATICALLY OPEN THE PORTS YOU NEED BUT ANY BAD GUY CAN DO THE SAME THING.

Steve Gibson: AND DOES IT BEHIND YOUR BACK.

Leo Laporte : DOESN'T TELL YOU. THE LEAST IT COULD DO, IN FACT THIS IS REALLY DUMB, IT SHOULD SAY, "HEY I WOULD LIKE TO OPEN SOME PORTS, IS IT OKAY IF I DO SO? MAY I DO SO?"

Steve Gibson: RIGHT.

Leo Laporte : BUT IT DOESN'T EVEN DO THAT BECAUSE THEN THEY'D GET A TECH SUPPORT CALL AND THEY DON'T WANT TO SPEND THE \$10 TOPAY FOR YOUR TECH SUPPORT CALL.

Steve Gibson: THEN TURN OFF WAN ADMINISTRATION.

Leo Laporte : WAN ADMINISTRATION. THAT MEANS THAT YOU COULD ENTER YOUR ROUTER FROM THE OUTSIDE WORLD. YOU DON'T WANT THAT EITHER.

Steve Gibson: RIGHT.

Leo Laporte : EVEN THOUGH YOU PUT A GOOD SECURE PASSWORD ON IT, IT JUST MAKES SENSE TO TURN THAT OFF. THE FOURTH AND FINAL THING WHICH APPLIES TO WIRELESS ROUTERS LIKE YOURS IS TO TURN ON ENCRYPTION. NOW YOU JUST BOUGHT THIS ROUTER? Mike: NO, I'VE HAD IT FOR QUITE SOME TIME.

Leo Laporte : AH, SO THAT MEANS YOU PROBABLY DON'T HAVE THE BETTER ENCRYPTION WHICH IS WPA, THE WIRELESS PROTECTED ACCESS. YOU PROBABLY HAVE WEP. Mike: IT'S A WIRELESS D ROUTER SO IT HAS--

Leo Laporte : IT HAS WPA? HALLELUJAH! IT'S MUCH EASIER, NOT JUST FROM THE POINT OF VIEW OF PROTECTING YOU BETTER, IT'S MUCH EASIER WHEN YOU GET TO THE CLIENT SIDE- -

Steve Gibson: HE MIGHT WANT TO UPDATE HIS FIRMWARE ALSO. IF HE'S GOT ANOTHER ROUTER, MAKE SURE HE'S CURRENT.

Leo Laporte : YOU'LL FIND THAT, IT DEPENDS ON WHAT ROUTER YOU'RE USING BUT YOU'LL FIND THAT SOMEWHERE IN THE ROUTER SET-UP, OFTEN IN THE ADVANCED TAB UPDATE FIRM WHERE YOU'LL HAVE TO DOWNLOAD A BIN FILE FROM THE ROUTER'S MANUFACTURER, LINKSYS, OR-- IS IT A LINKSYS ROUTER? Mike: YEAH.

Leo Laporte : SO YOU GO TO linksys.com, YOU'LL DOWNLOAD THE LATEST FIRMWARE, IT'S A BIN FILE, AND THEN YOU CAN UPDATE THE FIRMWARE, BUT AGAIN, YOU'LL HAVE TO HAVE IT CONNECTED TO COMPUTER TO DO THAT. ONCE YOU'VE DONE ALL THAT, YOU'VE CONFIGURED YOUR ROUTER, YOU DON'T HAVE TO TELL-- WELL IS IT DSL OR CABLE MODEM? Mike: IT'S A CABLE MODEM.

Leo Laporte : OKAY. ALMOST ALWAYS THAT'S ALL YOU NEED TO DO WITH A CABLE COMPANY. SOMETIMES A DSL, YOU HAVE TO GIVE IT MORE INFORMATION ABOUT PPPOE. BUT WITH A CABLE MODEM, YOU JUST SET IT UP DHCP. IT WILL AUTOMATICALLY GET ITS INFORMATION, THE CONFIGURATION SETTINGS, THE IP ADDRESS AND THE DNS SERVERS FROM THE CABLE COMPANY AUTOMATICALLY. IT JUST ASKS AND THE CABLE MODEM SAYS YES, HERE'S YOUR SETTINGS. YOU'RE DONE. NOW, UNPLUG AND YOU'RE GOING TO TURN ON THE WI-FI IN YOUR VARIOUS WIRELESS COMPUTERS. YOU'RE GOING TO SAY, "LOOK FOR AN ACCESS POINT". YOU'VE PROBABLY NAMED YOUR ACCESS POINT. I SHOULD SAY THAT'S THE FIFTH THING YOU SHOULD DO IS GIVE IT A NAME. AND I WOULDN'T RECOMMEND YOUR ADDRESS. I WOULD RECOMMEND A KIND OF GENERIC NAME. ASTEROID.

Steve Gibson: BECAUSE UNLESS YOU KEEP YOUR ACCESS POINT FROM BROADCASTING THAT, IT WILL BE BROADCASTING THAT OVER THE WHOLE NEIGHBOURHOOD AND ANYBODY CAN SEE WHAT YOU'VE NAMED IT.

Leo Laporte : FRANKLY EVEN IF YOU DO KEEP IT FROM BROADCASTING, IT'S VISIBLE IF

SOMEBODY KNOWS HOW TO LOOK. IT'S BROADCASTING ALL THE TIME NO MATTER WHAT. IT'S BETTER NOT TO ANNOUNCE THAT "HEY THERE'S A ROUTER AND A COMPUTER IN HERE, COME ON IN GUYS!" SO JUST GIVE IT SOME GENERIC NAME. I NAME MINE AFTER DEAD ROCK STARS. SO I'VE GOT HENDRIX, MORRISON, JOPLIN, LIKE THAT. WHATEVER YOU WANT. IT'S A CHANCE TO BE VERY CREATIVE. CALL IT "LEO". AND THEN YOU WILL GO TO EACH INDEPENDENT WIRELESS MACHINE. YOU DON'T NEED A SPECIAL DISK OR USB KEY. YOU GO TO THE WIRELESS MACHINE. IF IT'S WINDOWS, YOU'LL JUST IN THE SYSTEM TRAY, YOU'LL HAVE A LITTLE WIRELESS NETWORK THING. IT HAS TO HAVE A WIRELESS CARD OR YOU WON'T SEE THAT. YOU'LL RIGHT CLICK THAT AND SCAN FOR WIRELESS NETWORKS. IT WILL FIND ALL THE NETWORKS, YOU'LL FIND YOURS, HENDRIX, LEO OR WHATEVER IT IS. YOU CLICK ON THAT. IT'LL SAY "HEY THIS IS PROTECTED WHAT'S THE PASSWORD?" YOU GIVE THE NAME YOU GAVE YOUR ROUTER, THE WPA PASSWORD AND THEN YOU SHOULD BE ON. YOU CAN DO THAT ONE BY ONE WITH ALL YOUR MACHINES AND THAT'S ALL YOU DO.

Steve Gibson: THE ONE THING, THE ONE VULNERABILITY IN WPA IS THAT THE PASSWORD HAS TO BE UNGUESSABLE BECAUSE THERE ARE ATTACKS IN WPA. IF SOMEONE IS ABLE TO CAPTURE YOUR TRAFFIC, THEY CAN DO AN OFFLINE ATTACK, SO YOU WANT TO USE A REALLY HARD TO GUESS PASSWORD. I PUT UP THAT PASSWORDS PAGE ON GRC SPECIFICALLY TO CREATE PASSWORDS FOR PEOPLE IN A SECURE FASHION THAT NO ONE IS EVER GOING TO BE ABLE TO GUESS.

Leo Laporte : YEAH IF YOU USE YOUR DOGS NAME, SOMEBODY'S GOING TO GUESS IT. IF YOU USE ANY WORD IN THE DICTIONARY, THESE BRUTE FORCE ATTACK PROGRAMS WILL GUESS IT. IF YOU REALLY WANT TO BE SECURE, I DON'T DO THIS BECAUSE YOURS ARE THE MOST OBSCURE PASSWORDS EVER. [Pop captions up]

Leo Laporte : GO TO grc.com/password AND YOU WILL GET A 64 CHARACTER, COMPLETELY RANDOM PASSWORD, EVERY TIME YOU REFRESH THE PAGE YOU GET A NEW ONE. IF IT'S EVER BEEN OFFERED BEFORE, IT WILL NEVER BE OFFERED AGAIN. IT'S COMPLETELY RANDOM. YOU'RE GOING TO HAVE TO CUT AND PASTE THAT BECAUSE THERE'S NOWAY YOU'RE TYPING THAT SUCKER IN. BUT IF YOU WANT TO USE THESE, THIS IS THE BEST WAY TO SECURE IT. [Pop captions down]

Leo Laporte : I JUST USE A GOOD COMBINATION THAT I CAN REMEMBER OF UPPER CASE, LOWER CASE, PUNCTUATION AND STUFF. NOTHING THAT'S IN THE DICTIONARY.

Steve Gibson: BUT THE LONGER THE BETTER AGAIN BECAUSE YOU CAN STILL GET TO THAT EVENTUALLY. THAT'S NOT TO SAY THAT ANYBODY IS GOING TO GO AFTER SOMEONE BUT YOU JUST DON'T WANT TO THINK ABOUT IT--

Leo Laporte : FOR YEARS I HAD AN OPEN ACCESS POINT SO I'M BETTER THAN I WAS LET'S PUT IT THAT WAY. I DON'T KNOW IF WE ANSWERED YOUR SPECIFIC PROBLEM BUT TRUST ME, IF YOU GO THROUGH THESE STEPS JUST LIKE THAT, IT ABSOLUTELY WILL WORK.
Mike: SO CAN YOU FILE SHARE, PRINT SHARE AFTER THAT?

Leo Laporte : YEAH, NOW IF YOU'VE GOT SECURITY SOFTWARE, THAT WILL BLOCK IT SO YOU HAVE TO MAKE SURE THAT IF YOU HAVE A FIREWALL OR SOMETHING LIKE THAT YOU DISABLE IT TEMPORARILY UNTIL YOU GET EVERYTHING WORKING.

Steve Gibson: AND IF THERE'S THIRD PARTY WI-FI ENHANCEMENT GUNK--

Leo Laporte : THAT CAN GET IN THE WAY TOO.

Steve Gibson: YOU REALLY OUGHT TO, LIKE THE D-LINK EASY NETWORK, GET IT OFF OR REMOVE IT. BECAUSE IT DOESN'T REALLY HELP ANYTHING AND THE BUILT IN WINDOWS ZERO CONFIGURATION STUFF REALLY WORKS WELL.

Leo Laporte : FILE SHARING, PRINT SHARING IS GOING TO WORK BUT THAT CAN BE ANOTHER LEVEL OF COMPLEXITY. WE'LL ADDRESS THAT AT A LATER TIME BUT THAT'S A WHOLE OTHER MATTER THAT SECURITY SOFTWARE CAN GET IN THE WAY. HEY GOOD LUCK, I HOPE THAT HELPS. DON'T USE THE DISK, THE KEY, THEY'RE NOT MAKING IT EASIER. WE'RE GOING TO TAKE A BREAK. WHEN WE COME BACK WE'RE GOING TO TALK ABOUT VISTA AND THE NEW DIGITAL RIGHTS MANAGEMENT MICROSOFT HAS IMPOSED UPON ALL OF US. IS IT A GOOD OR A BAD? STEVE GIBSON KNOWS, HE'LL TELL US WHEN THE LAB WITH LEO RETURNS. [Commercial]

Leo Laporte : WELCOME BACK TO THE LAB WITH LEO. STEVE GIBSON IS HERE WITH grc.com, OUR FAVOURITE SECURITY WHIZ, ALSO THE AUTHOR OF SPIN RIGHT WHICH IS MY FAVOURITE, ESPECIALLY RIGHT NOW, MY LIFESAVING DISK RECOVERY AND MAINTENANCE UTILITY. WE'RE GOING TO TALK ABOUT SOMETHING THAT'S ACTUALLY BEEN A HOT TOPIC ON THE NET FOR THE LAST SIX MONTHS THANKS TO A NEW ZEALAND FELLOW BY THE NAME PETER GUTMANN. [Pop captions up]

Steve Gibson: PETER IS A WELL KNOWN SECURITY RESEARCHER FROM YEARS AGO WHO DECIDED TO TAKE A LOOK AT THE NEW DIGITAL RIGHTS MANAGEMENT TECHNOLOGY, DRM, COPY PROTECTION THAT'S ALL BUILT DEEPLY INTO WINDOWS VISTA AND HE PRODUCED A PAPER THAT SCARED A LOT OF PEOPLE.

Leo Laporte : VERY CONTROVERSIAL TOO.

Steve Gibson: WELL BECAUSE HE TALKED ABOUT THINGS LIKE TILT BITS WHERE IF THE SYSTEM GETS ANY SENSE THAT SOMETHING IS WRONG, IT WILL SHUT DOWN WINDOWS--

Leo Laporte : AND WRONG MEANS YOU'RE TRYING TO PIRATE SOMETHING. IT THINKS YOU MIGHT BE TRYING TO CRACK COPY PROTECTION. THAT'S WHAT IT MEANS BY WRONG. NOT WRONG LIKE NOT WORKING PROPERLY. WRONG LIKE YOU'RE TRYING TO STEAL SOMETHING.

Steve Gibson: ESSENTIALLY WHAT MICROSOFT DID WAS, AND THEY'RE DEFENDING IT SAYING THEY HAD NO CHOICE BUT TO DO THIS.

Leo Laporte : HOLLYWOOD MADE US TO IT.

Steve Gibson: YES. THEY'VE TURNED VISTA INTO WHETHER YOU WANT IT TO BE OR NOT, INTO A LOCKED DOWN, SUPER TIGHT, DIGITAL CONTENT DELIVERY PLATFORM.

Leo Laporte : EVEN IF YOU HAVE VISTA BUSINESS, IF YOU DON'T HAVE A HD-DVD PLAYER,

EVEN THEN IT HAS ALL THOSE FEATURES?

Steve Gibson: YES. THE PROBLEM IS IT WASN'T SOMETHING THAT COULD BE ADDED ON. IN ORDER TO MAKE THE SYSTEM SECURE ENOUGH, THEY HAD TO COMPLETELY RE-ENGINEER DOWN IN THE OPERATING SYSTEM KERNEL, IN ORDER TO PUT IN PROTECTION THAT WAS IMPOSSIBLE TO REMOVE.

Leo Laporte : ALL THIS COMES FROM THE FACT THAT HOLLYWOOD THINKS THAT EVERY PC HAS AN ANTI-PIRACY DEVICE.

Steve Gibson: HOLLYWOOD IS NOT HAPPY ABOUT PCS AT ALL.

Leo Laporte : IN GENERAL SO THEY BASICALLY PUT THE SCREWS TO MICROSOFT SAYING YOU MAKE SURE EVERY PC IS LOCKED DOWN SO WE DON'T HAVE TO WORRY ABOUT THIS.

Steve Gibson: THERE ARE DVD PLAYER SOFTWARE, WIN DVD, POWERDVD, THEY'LL ALREADY PLAY HD THAT IS HIGH DEFINITION CONTENT ON XP. SO PEOPLE ARE SAYING, WAIT A MINUTE, WE CAN WATCH OUR HD MOVIES WITH THESE PLAYERS. MICROSOFT DECIDED THEY WANTED TO BE MORE IN THE GAME. THEY MUST BE LOOKING AT VISTA AS A PLATFORM FOR THE HOME THEATRE SORT OF MODE WHERE YOU HAVE A DIGITAL CONNECTION TO A DIGITAL THEATRE DISPLAY SO THEY'RE MONITORING THE INTEGRITY ALL THE WAY FROM THE DISK, DECRYPTING TECHNOLOGY AND THEN MOVING IT THROUGH THE SYSTEM ALL THE WAY TO THE SCREEN AND IF ANYTHING ALONG THE WAY SEEMS A LITTLE BIT UNSURE, THEY'LL SHUT IT DOWN. THEY DO THINGS FOR EXAMPLE LIKE DELIBERATELY BLUR THE PICTURE TO LIMIT THE QUALITY OF THE PICTURE IF THEY CAN'T VERIFY OR GUARANTEE THAT THERE IS NO CHANCE THAT THERE'S DECRYPTED DATA ANYWHERE BETWEEN THE ORIGINAL SOURCE AND THE SCREEN.

Leo Laporte : ONE OF THE THINGS GUTMANN SAYS IS THAT IF YOU DON'T HAVE THE PROPER PERMISSIONS TO PLAYBACK THIS PREMIUM PROTECTED CONTENT, AS YOU SAID, THE VIDEO WILL GO LOWER RESOLUTION. YOU WON'T BE ABLE TO PLAY AUDIO BACK THROUGH THE OPTICAL PORT, PERFECT DIGITAL AUDIO, IT'LL DEGRADE STUFF. AND PEOPLE WERE CONCERNED THAT OH MY GOSH DOES THIS MEAN THAT, LET'S USE THE EXAMPLE HE USED, A RADIOLOGIST LOOKING AT X-RAYS SUDDENLY THAT IMAGE IS DEGRADED BECAUSE I'M TRYING TO PLAY BACK AN HD-DVD. MICROSOFT SAYS NO.

Steve Gibson: RIGHT AND I BELIEVE MICROSOFT WAS RIGHT THAT PETER, ALL PETER WAS ABLE TO DO WAS PRODUCE THIS REPORT FROM READING THE SPECIFICATIONS.

Leo Laporte : THIS IS THE DOCUMENTATION MICROSOFT RELEASED.

Steve Gibson: AND PETER WAS CONCERNED THE ENTIRE SCREEN WOULD GET BLURRY AS PART OF WHAT VISTA WAS TRYING TO DO TO SAY TO THE MOVIE PRODUCERS LOOK WE'RE JUST GOING TO DO WHATEVER YOU TELL US TO DO. THAT REALLY IS THE ISSUE.
[Pop captions up]

Steve Gibson: IN THE NEXT GENERATION MEDIA, IN HD DIGITAL CONTENT, THERE COULD

BE A SET OF POLICIES WHICH VISTA WILL FOLLOW RELIGIOUSLY WHICH FOR EXAMPLE XP DIDN'T KNOW ANYTHING ABOUT. [Pop captions down]

Leo Laporte : NOW MICROSOFT DOES POINT OUT, IF YOU'RE READING AN XRAY AND YOU'RE TRYING TO WATCH AN HD-MOVIE.THE X-RAY, EVEN IF THE MOVIE GETS DEGRADED CAUSE YOU DON'T HAVE THE PROPER KEYS OR PERMISSIONS, THE X-RAYS NOT GOING TO BE--

Steve Gibson: BECAUSE IT'S BY WINDOW, NOT BY SCREEN.

Leo Laporte : SO ONLY THE PREMIUM CONTENT CHANNEL WILL BE AFFECTED.

Steve Gibson: NOW THERE HAS ALSO BEEN SOME CONCERN THAT THIS WAS GOING TO RAISE THE COST OF OUR HARDWARE BECAUSE IT USED TO BE FOR EXAMPLE YOU COULD GET AHIGH PERFORMANCE DIGITAL ADAPTER CARD AND IT WOULD HAVE ALL THE CHIPS LOCATIONS FILLED IN BUT YOU COULD ALSO BUY A CHEAPER VERSION OF THE SAME CARD.THEY'D HAVE A BUNCH OF CARDS MISSING BECAUSE YOU DIDN'T HAVE TO HAVE A HIGH END CARD. WELL THAT WAS ECONOMICAL FOR THE CARD MAKER CAUSE THEY WERE ABLE TO PUT THINGS IN ONLY IF THEY NEEDED IT. AND TAKE THEM OUT WHEN THEY'RE NOT NECESSARY. WELL THE PROBLEM IS THAT THATWOULD EXPOSE, THOSE UNUSED TRACES, WOULD EXPOSE THE DIGITAL CONTENT THAT WOULD ALLOW A PIRATE TO LITERALLY HOOK THEIR OWN WIRES TO IT--

Leo Laporte : THE CARD COULD BE HACKED.

Steve Gibson: EXACTLY, YOU CAN HACK THE CARD SO NOW WE'RE GOING TO HAVE TO HAVE A NEXTGENERATION OF HACK PROOF ADAPTERS. THE ADAPTER CARDS HAVE THEIR OWN LICENSES AND CERTIFICATIONS. BASICALLY EVERYTHING THROUGHOUTTHE SYSTEM NOW NEEDS TO BE CERTIFIED AND IF A BUG IS FOUND, IN ANY OF THESE PLACES, THE LICENCE CAN BE REVOKED AND THE CONCERN WAS YOUR CARD COULD BESHUT DOWN REMOTELY BY MICROSOFT.

Leo Laporte : THAT'S THE DESIGN OF THE AACS COPY PROTECTION IN THE MOVIES.

Steve Gibson: THEY HAVE TO BEABLE TO DO IT.

Leo Laporte : IN FACT IT-- IT'S ALREADY BEEN CRACKED. THE AACS HAS ALREADY BEEN CRACKED AND SOME PLAYERS CANPLAY BACK CONTENT ILLEGALLY. BUT NOBODY'S REVOKED KEYS YET, THAT'S NEVER HAPPENED YET.

Steve Gibson: THAT'S WHAT'S SO DUMB ABOUT THIS.COPY PROTECTION HAS NEVER BEEN UNCRACKABLE AND YET HERE'S VISTA WITH ALL THIS EXTRA STUFF NOW LOADED ON TOP OF IT AND IT'S ALREADY BEEN CRACKED.

Leo Laporte : LET'S GO DOWN THE COST TO THE CONSUMER OF THIS COPY PROTECTION THAT VISTA'S BUILDING. YOU MENTIONED THAT SOME PERIPHERALS MAY BE EXPENSIVE, HARDER TO DESIGN. THEY HAVE LIMITATIONS IN WHAT THEY CAN DO. WILL IT SLOW THE MACHINE DOWN?

Steve Gibson: IF THERE ARE BUGS IN THEM. BUGS IN DRIVERS USED TO NOT BE A BIG PROBLEM, NOW THEY'RE A MUCH BIGGER PROBLEM SO THE CARD MANUFACTURERS ARE GOING TO HAVE TO BE MUCH MORE CAREFUL ABOUT THE WAY THE SOFTWARE'S DESIGN--

Leo Laporte : A FLAW IN THE CARD COULD LOOK LIKE A PIRACY ATTEMPT.

Steve Gibson: IT WILL NOW BE A TARGET OF ATTACK WHERE IT DIDN'T MATTER BEFORE.

Leo Laporte : SO CARDS ARE MORE EXPENSIVE. DOES IT SLOW THE SYSTEM DOWN?

Steve Gibson: THERE IS SOME OVERHEAD BECAUSE IN ORDER TO AVOID EMULATION OF A CARD WHERE A SOFTWARE WILL PRETEND TO BE AN ADAPTER IN ORDER TO SNEAK THE DIGITAL CONTENT OUT, THEY NOW, SEVERAL TIMES A SECOND, THEY HAVE ACTIVITY GOING TO THE CARDS SAYING "PROVE TO ME THAT YOU'RE REAL, PROVE TO ME THAT YOU'RE REAL.." EVEN WHEN NOTHING IS GOING ON.

Leo Laporte : SEVERAL TIMES A SECOND?

Steve Gibson: 300 TIMES A SECOND ACTUALLY. IT'S EVERY 3 MILLISECONDS.

Leo Laporte : HOLY COW. WOW. IS IT LESS RELIABLE? IS WINDOWS' VISTA LESS RELIABLE BECAUSE OF THIS?

Steve Gibson: THE TILT BITS, FOR EXAMPLE YOU PLUGGED IN A USB DONGLE THAT CAUSED THE POWER TO GLITCH A LITTLE BIT, THAT COULD BE SEEN AS A SIGN OF SOMEONE HOOKING NEW HARDWARE TO THE SYSTEM AND OUR SYSTEMS HAVE BEEN DESIGNED TO BE AS RESILIENT AS POSSIBLE. THIS REMOVES SOME RESILIENCY FROM OUR SYSTEMS.

Leo Laporte : BOTTOM LINE THEN, IT SOUNDS LIKE THIS IS BAD FOR CONSUMERS. IS THERE ANYTHING WE CAN DO ABOUT IT?

Steve Gibson: NO.

Leo Laporte : [Laughing] YOU'RE STUCK WITH IT. IF YOU'RE GOING TO USE VISTA IT COMES WITH THIS.

Steve Gibson: IT'S PART OF THE PACKAGE WITH VISTA. HOPEFULLY, THE THING THAT'S ANNOYING IS MOST PEOPLE DON'T EVEN NEED ANY OF THIS.

Leo Laporte : I DON'T PLAN ON WATCHING HD-DVD ON MY COMPUTER, I'VE GOT A TV FOR THAT.

Steve Gibson: EXACTLY. AND SO IT'S BECAUSE MICROSOFT WANTS TO MOVE INTO THE LIVING ROOM, WITH THEIR PC PLATFORM THAT THEY PUT ALL THIS IN THERE EVEN IF YOU DON'T NEED IT.

Leo Laporte : YOU CAN READ MORE ABOUT IT INCLUDING PETER GUTMANN'S ORIGINAL

PAPER AND STEVE'S RESPONSE AND MICROSOFT'S REBUTTAL TO PETER GUTMANN. IT'S ALL ONLINE ON OUR WEBSITE WHICH IS thelabwithleo.com AND CERTAINLY WORTH READING. I HAVE TO SAY THOUGH VISTA HAS BEEN OUT FOR A FEW MONTHS NOW. WE HAVEN'T SEEN ANY HUGE PROBLEMS BECAUSE OF THIS YET.

Steve Gibson: LITTLE REPORTS OF PEOPLE HAVING PROBLEMS WITH PLAYING MOVIES BUT WE REALLY DON'T KNOW WHAT THAT'S ABOUT.

Leo Laporte : IT'S TIME TO PLAY WHAT THE HECK IS IT? A CLOSE UP PICTURE OF SOMETHING IN TECH. \A\WHAT THE HECK? TAKE A LOOK. DO YOU KNOW? HMMM, I DON'T. MAYBE SEAN CARUTHERS CAN TELL US. [Commercial]

Leo Laporte : \A\IEL COME BACK TO THE LAB. BEFORE THE BREAK WE SHOWED THIS CLOSEUP PICTURE.\A\HAT IS IT?

Leo Laporte : WELL, ZOOM OUT AND IT'S SPEAKER COVER. I KNEW IT WAS A GRILL OF SOME KIND. WHO IS THAT CHARACTER THOUGH? GO OUT LONG SHOT, GO LONG. WHOA! OH GOD, I'M SORRY. ARE YOU OKAY? LET'S GET ANOTHER CALLER-- I KNOW YOU'RE A BIG FAN OF RUGBY.

Kate Abraham : OH!

Leo Laporte : [Laughing] I THINK WE HAVE A FELLOW NATIONAL.

Kate Abraham : ONE OF MY PEOPLE.

Leo Laporte : ONE OF YOUR PEEPS.

Kate Abraham : THIS IS RALPH. HE'S FROM ONTARIO. BUT ORIGINALLY HE'S FROM THE U.K.

Leo Laporte : HE SAID HE'S GOING TO HAVE TO GET TRANSLATION FROM YOU. SO RALPH WHERE IN THE U.K. ARE YOU FROM? Ralph: LIVERPOOL.

Leo Laporte : OH YOU'RE GOING TO TALK LIKE THAT THEN? ALRIGHT, GO AHEAD THEN. I'LL SEE IF I CAN DO MY--I'M GOING TO USE MY BEST LIVERPOOL EARS. WHAT'S YOUR QUESTION? Ralph: I'M TRYING TO SORT A PROBLEM OUT WITH AN EXCEL PROGRAM. I NEED TO PUT DATES IN, FROM SAY THE FIRST OF MARCH AND THEN IT AUTOMATICALLY GO IN ON THE SECOND OF FEBRUARY, LIKE AS SCHEDULE. SO I NEED A FORMULA THAT WILL DO THAT. I CAN'T WORK ONE OUT.

Leo Laporte : AND YOU WANT TO DO IT IN EXCEL? EXCEL ACTUALLY HAS SOME VERY GOOD DATE CAPABILITIES. DATE FUNCTIONS. YOU'RE USING WHICH VERSION OF EXCEL? 2003 PROBABLY. Ralph: 2003 YUP.

Leo Laporte : DO YOU MIND IF WE PUT YOU ON HOLD BRIEFLY AND CALL IN THE WIZARD? Mr. EXCEL. I THINK WE CAN GET BILL JELEN ON THE LINE. HE IS OUR EXCEL WIZARD RALPH. YOU'LL FORGIVE ME BUT I THINK THIS IS A JOB FOR Mr. EXCEL BECAUSE WHILE I THINK I CAN DO THIS USING THE DATE FUNCTIONS, I THINK BILL'S GOING TO BE BETTER AT THIS. CAN WE GET BILL ON THE LINE HERE? SHE'S CALLING BILL RIGHT NOW.

LET'S PUT RALPH ON HOLD.HE WAS VERY KIND. I DIDN'T UNDERSTAND A WORD HE SAID THOUGH SO YOU'LL HAVE TO EXPLAIN TO ME KATE WHAT HE WAS SAYING.HEY THERE'S BILL JELEN. HELLO BILL.

Bill Jelen: HOW YA DOING?

Leo Laporte : DID YOU UNDERSTAND WHAT RALPH SAID?

Bill Jelen: YEAH ACTUALLY--

Leo Laporte : [Mumbling] SO HOW DO YOU DO THAT?

Bill Jelen: [Laughing]

Leo Laporte : HE WANTS TO ENTER A DATE AND SAY SOMEWHERE GIVE ME A DATE THAT'S EIGHT WEEKS LATER OR FOUR WEEKS LATER. [Pop captions up]

Bill Jelen: RALPH'S PROBLEM IS HE'S CREATED A BEAUTIFUL LOOKING CALENDAR THAT HE CAN PRINT OUT FOR ALL HIS EMPLOYEES TO TELL THEM WHEN TO GO TO THE STORE-- [Pop captions down]

Leo Laporte : OH SO YOU SAW WHAT HE WAS DOING?

Bill Jelen: YEAH ACTUALLY, I BY EMAIL, WE TOOK A LOOK AT WHAT HE WAS DOING.

Leo Laporte : OKAY.

Bill Jelen: IT'S A BEAUTIFUL FORMAT BUT UNFORTUNATELY MANY PEOPLE TRY TO CREATE THINGS IN A FORMAT THAT'S GOING TO LOOK GOOD WHICH ISN'T THE BEST WAY TO STORE IT. SO I HAVE A SOLUTION FOR RALPH WHERE BASICALLY WE'RE GOING TO TAKE ALL OF HIS DATA AND PUT IT IN A NICE BEAUTIFUL SPREADSHEET. ONE ROW PER STORE, PER VISIT, FIVE OR SIX COLUMNS. AND THEN BECAUSE IT'S IN A SPREADSHEET, I'LL BE ABLE TO CREATE SOME FORMULAS THAT JUST LIKE YOU SAY, FIGURES OUT FOUR WEEKS OR SIX WEEKS AHEAD AND THEN AT THE VERY END, I MADE A BEAUTIFUL LOOKING SPREADSHEET FOR RALPH THAT SHOWS HIS CALENDAR BUT NOW HE CAN USE FORMULAS TO QUERY THAT DATABASE.

Leo Laporte : PEOPLE OFTEN DO THAT, THEY START WITH THE PRESENTATION FIRST. PROGRAMMERS WANT TO DO THAT TO, THEY WANT TO START WITH THE USER INTERFACE. A LOT OF PROGRAMMING TOOLS ARE ACTUALLY DESIGNED NOW, THEY'RE CALLED RAPID APPLICATION DEVELOPMENT, TO DO THAT BECAUSE IT'S THE NATURAL INCLINATION BUT YOU'RE SAYING HE REALLY SHOULD HAVE STARTED WITH THE SPREADSHEET, WORRY ABOUT PRESENTATION LAST.

Bill Jelen: RIGHT BECAUSE WITH HIS PRESENTATION, IF YOU CAN IMAGINE WHAT A CALENDAR LOOKS LIKE AND EVERY SQUARE ON THE CALENDAR HAS FIVE OR SIX VALUES, TO TRY AND CREATE FORMULAS THAT WOULD REFERENCE THAT WILD, CRAZY LAYOUT, THAT WOULD BE VERY, VERY HARD.

Leo Laporte : WE'LL PUT YOUR SOLUTION ON THE WEBSITE BUT CANYOU DESCRIBE TO ME AND I'LL TYPE ALONG WITH YOU WHAT--THE GENERAL WAY HE SHOULD DO THIS?

Bill Jelen: HEAD COLUMNS WITH THE STORE NUMBER AND THE DATE OF LAST VISIT.

Leo Laporte : STORE NUMBER IS IN COLUMN A. AND I'M GOING TO HAVE COLUMN B BE DATE OF LAST VISIT.

Bill Jelen: AND THEN I KIND OF SKIPPED ONE COLUMN AND THEN I STARTED THE AREA THAT HAD ALL OF THE FORMULAS. SO YOU CAN IMAGINE THE FIRST COLUMN BECAUSE WE VISIT EACH STORE EVERY MONTH, IN THE COURSE OF A YEAR, THERE'S GOING TO BE 12 TIMES AS MANY RECORDS AS STORES. BUT THEN I HAVE A NICE LITTLE TABLE THAT JUST HAS EACH STORE LISTED ONCE. AND FOR EACH STORE LISTED ONCE I CREATED A FORMULA THAT SAWS "WHEN WAS THE LAST TIME WE WERE AT THIS STORE?"

Leo Laporte : THAT'S THE DATE OF LAST VISIT.

Bill Jelen: AND WE KNOW WE WANT TO VISIT THIS STORE 28 DAYS LATER. HE SAID THERE ARE SOME STORES HE VISITS EVERY SIX WEEKS.

Leo Laporte : SO THEN COLUMN C WOULD THEN BE THE GAP I'LL CALL IT, BETWEEN VISITS.

Bill Jelen: RIGHT.

Leo Laporte : AND COLUMN D WOULD BE THE DATE OF NEXT VISIT.

Bill Jelen: EXACTLY. AND THAT'S JUST A SIMPLE ADD THE DATE OF THE LAST VISIT TO THE GAP AND YOU GET--

Leo Laporte : SO I'M GOING TO DO 4-1-07. THE GAP IS GOING TO BE 28...SHOULD IT BE IN DAYS?

Bill Jelen: 28.

Leo Laporte : AND THEN HOW DO I ADD AND I GUESS THAT'S THE QUESTION, ADD A NUMBER TO A DATE TO GET IT TO EQUAL A DATE?

Bill Jelen: SURE, IT SHOULD WORK. IF YOU TYPE THE EQUAL SIGN, TOUCH THE DATE, THEN THE PLUS SIGN AND TYPE 28--

Leo Laporte : AND HIT RETURN?

Bill Jelen: HIT RETURN.

Leo Laporte : IS IT GOING TO BE SMART ENOUGH? LOOK AT THAT, IT DID IT!

Bill Jelen: HOLY SMOKES, THERE YOU GO.

Leo Laporte : LET'S JUST TRY THIS. WHAT IF I MAKE IT 120 DAYS, LET'S SEE IF THIS COULD

ACTUALLY FIGURE OUT THE MONTH CHANGE--IT DID 7-30. SO EXCEL IS SMART ENOUGH TO DO THOSE DATE CALCULATIONS AUTOMATICALLY. IT SEES THAT THE FIRST ITEM IS FORMATTED IN A DATE AND SO IT SAYS OBVIOUSLY THE RESULT IS GOING TO BE A DATE.

Bill Jelen: RIGHT. EVERY ONCE IN A WHILE THOUGH, LIKE LET'S SAY THAT COLUMN HAD PREVIOUSLY BEEN FORMATTED, YOU'RE GOING TO GET A WEIRD NUMBER LIKE "39075". THAT'S THE WAY EXCEL STORES DATES AND IF YOU SEE THAT DON'T PANIC. JUST GO INTO FORMAT CELLS AND CHANGE IT OVER TO A DATE FORMAT.

Leo Laporte : WE'RE IN AN OFFICE 2007 SO YOU CAN SEE THIS IS IN A VERY NICE TILE THAT SHOWS US THE NUMBER FORMAT AND I CAN CHOOSE AND VARIETY. IF IT WERE NUMBERS, WATCH SEE, IT'S "38,293.00" BUT I JUST GO BACK AND CHOOSE DATE. I CAN EVEN CHOOSE SHORT DATE OR LONG DATE AND IT'LL EVEN TELL ME THE DATE OF THE WEEK IF I CHOOSE LONG DATE.

Bill Jelen: NOW IF RALPH DOESN'T LIKE THE GUYS TALKING ON THE STORES, HE CAN ACTUALLY PRINT THE CALENDAR WITH THE 38,293 AND SAY YOU HAVE TO BE 38,000 DAYS AFTER April 1, 1900.

Leo Laporte : [Laughing] YOU FIGURE OUT WHEN THAT IS. SO REALLY IT'S A VERY SIMPLE THING TO DO. HE WAS GETTING IN TROUBLE BECAUSE HE'S DONE THE FORMATTING FIRST AND MADE IT VERY HARD TO MAKE A FORMULA.

Bill Jelen: RIGHT. IF YOU CAN IMAGINE HOW A CALENDAR WOULD WORK, HE HAD MONDAY TO FRIDAY GOING ACROSS AND THEN EACH WEEK GOING DOWN. SO YOU DON'T HAVE A NICE CONTIGUOUS BLOCK OF DATA--

Leo Laporte : START WITH THE DATA AND THE PROBLEM AND THEN DO THE PRESENTATION LAST. CAN WE TAKE YOUR SPREADSHEET THAT YOU'VE MADE FOR RALPH AND PUT IT ON OUR WEBSITE SO PEOPLE CAN SEE THE SOLUTION?

Bill Jelen: I'LL SEND IT OUT AND I'LL SEND A COPY TO RALPH TOO AND MAKE SURE IT'S DOING WHAT HE NEEDS IT TO DO.

Leo Laporte : BLESS YOU BILL. YOU ARE THE GREATEST. Mr. EXCEL ANSWERS TENS OF THOUSANDS OF QUESTIONS ABSOLUTELY FREE ON HIS WEBSITE, mrexcel.com. QUESTIONS JUST LIKE THIS ONE. HE JUST LIKES TO DO IT I GUESS. I DON'T KNOW WHY. AND HE'S WRITTEN SOME OF THE BEST BOOKS ON EXCEL. YOU CAN FIND THEM ALSO ON mrexcel.com THANKS BILL.

Bill Jelen: GREAT LEO, THANKS FOR THE CALL.

Leo Laporte : I CAN'T WAIT FOR YOU TO COME UP AND SEE OUR NEW DIGS HERE IN VANCOUVER. TAKE CARE. BYE BYE. SEE THAT WAS NICE. THAT WAS GOOD. NOW WILL YOU TRANSLATE FOR RALPH?

Kate Abraham : I THINK BILL--

Leo Laporte : PUT THAT IN LIVERPUDLIAN.

Kate Abraham : [Giggling] I DON'T KNOW IF I CAN ACTUALLY. [Both laughing]

Leo Laporte : YOU SAID THERE'S ONLY ONE ACCENT TOUGHER.

Kate Abraham : NEWCASTLE. RIGHT IN THE NORTH.

Leo Laporte : THE FARTHER NORTH YOU GET, THE TOUGHER IT IS.

Kate Abraham : YUP.

Leo Laporte : WE'RE GOING TO TAKE A BREAK AND WE WILL COME BACK-- YOU WANT TO DO THE QUIZ? LET'S DO THE QUIZ. [Blank for boards] THE FIRST COMPUTER LANGUAGE COMPILER. GET TO THE WEBSITE AND GIVE US THE ANSWER. \AIE'LL TALK ABOUT IT WHEN THE LAB RETURNS. [Commercial]

Leo Laporte : [Whistling] OH I'M SORRY. [Laughing] WELCOME BACK. WE WERE JUST DANCING. SEAN! YOU MADE A CATCHY SONG. WELCOME BACK TO THE LAB WITH LEO. LET'S GET ANOTHER CALLER ON THE LINE HERE. YOU HAVE SOMEBODY FOR ME KATE.

Kate Abraham : I DO. IT'S MIKE FROM AJAX, ONTARIO.

Leo Laporte : MIKE FROM AJAX. I HAVEN'T TALKED TO HIM IN, EVER. HEY MIKE, HOW ARE YOU? Mike: HEY LEO. HOW ARE YOU BUDDY?

Leo Laporte : I'M GREAT. WELCOME TO THE SHOW. WHAT CAN WE DO FOR YOU TODAY? M: JUST WONDERED ABOUT ANTIVIRUS. I HAD NORTON'S FOR A WHILE AND MY SUBSCRIPTION KIND OF EXPIRED.

Leo Laporte : HALLELUJAH! FREE AT LAST, FREE AT LAST. Mike: I WAS WONDERING WHAT ARE THE OPTIONS WITH ANTIVIRUS.

Leo Laporte : GREAT QUESTION. I AM NOT A FAN OF NORTON AS YOU PROBABLY GATHERED. IT IS KIND OF THE DEFAULT. NORTON AND MCAFEE ARE KIND OF THE DEFAULT ON MOST PCS. IT COMES WITH THAT. THAT SHOULD TELL YOU SOMETHING RIGHT THERE. MY OPINION ON NORTON IS THAT IT'S BLOATED, SAME THING WITH MCAFEE. THEY'RE TOO BIG. THEY SLOW YOUR SYSTEM DOWN. THEY SLOW YOUR SYSTEM DOWN A LOT; 10-15%.

Steve Gibson: OR MORE.

Leo Laporte : OR MORE! STEVE GIBSON'S HERE AND OF COURSE HE'S OUR SECURITY EXPERT HERE AND HE SEEMS TO BE AGREEING WITH ME. THERE'S ANOTHER ISSUE ABOUT NORTON AND MCAFEE IS THAT THEY'RE SO WELL KNOWN, THEY'RE OFTEN TARGETTED BY VIRUSES. IF A VIRUS DOES GET ON YOUR SYSTEM, THE FIRST THING THEY LOOK FOR IS NORTON AND SAYS "SEE YA". I THINK IN SOME WAYS YOU'RE BETTER OFF WITH A LESSER KNOWN ANTIVIRUS. NOW, I SHOULD POINT OUT THAT NEITHER STEVE OR NOR I RUN ANTIVIRUSES ON A REGULAR BASIS. BEHAVIOUR IS THE NUMBER ONE

DETERMINANT ON WHETHER YOU'RE GOING TO GET INFECTED BY SPYWARE. THERE'S FIVE BASIC THINGS, AND I BEAT THIS INTO EVERYBODY'S HEAD. I'M GOING TO SAY IT AND THEN I'M GOING TO GIVE YOUR ANSWER. I JUST WANT TO SAY THIS. IF YOU'RE BEHAVIOUR CHANGES IN THESE FIVE AREAS-- AN ANTIVIRUS IS JUST KIND OF A BACKUP. YOU'RE THE FIRST LINE OF DEFENCE. IT'S NOT A BAD IDEA TO HAVE AN ANTIVIRUS TO SCAN WEEKLY TO MAKE SURE THAT NOTHING'S FALLEN THROUGH THE CRACKS. NUMBER ONE, UPDATE YOUR OPERATING SYSTEM REGULARLY. AND I MEAN INSTALL ANY UPDATES THAT ARE AVAILABLE, ESPECIALLY THOSE CRITICAL UPDATES BECAUSE THE MINUTE THOSE CRITICAL UPDATES COME UP FOR MAC OR WINDOWS, OR EVEN LINUX, HACKERS ARE LOOKING AT THEM TO SEE IF THEY CAN FIND A HOLE. SO YOU WANT-- IT'S IMPERATIVE YOU INSTALL THOSE RIGHT AWAY. ALWAYS UPDATE YOUR OPERATING SYSTEM. THAT WILL BLOCK ANY KIND OF INVOLUNTARY HOLES. THEN YOUR BEHAVIOUR'S IMPORTANT IN TERMS OF NOT OPENING EMAIL ATTACHMENTS. I TURN OFF HTML EMAIL ENTIRELY. I THINK EMAIL IS THE NUMBER ONE VECTOR FOR VIRUSES. THAT'S HOW VIRUSES GET INTO YOUR SYSTEM. ATTACHMENTS ARE OFTEN VIRUSES. UNLESS YOU SPECIFICALLY REQUESTED OR YOU KNOW IT'S COMING AND YOU KNOW THE PERSON WHO'S SENDING IT TO YOU HAS A GOOD A HYGIENE HABIT AS YOU DO, I SAY STAY AWAY FROM ATTACHMENTS. THERE ARE A LOT OF OTHER WAYS TO SHARE FILES WITHOUT ATTACHMENTS. YOU SHOULD ALSO MAKE SURE THAT YOU RUN A FIREWALL. AND THAT CAN BE SOMETHING AS SIMPLE AS A HARDWARE ROUTER, A BROADBAND ROUTER THAT YOU USE TO SHARE YOUR INTERNET ACCESS. OR IT CAN BE WINDOWS OWN FIREWALL. EITHER ONE WILL PROTECT YOU AGAINST THOSE WORMS THAT ARE ALWAYS FLOATING AROUND THE NET LIKE SASSER, ZOTOB, MS-BLASTER. THEY'RE ALWAYS ON THE NET. THEY'RE JUST FLOATING AROUND, AND IF YOU DON'T HAVE A FIREWALL, YOU WILL GET INFECTED RIGHT AWAY. SO FIREWALL KIND OF GOES HAND IN HAND WITH UPDATING YOUR OPERATING SYSTEM TO PREVENT YOU FROM PASSIVE INFECTION. LET'S SEE, THAT'S THREE. I'M SURE THERE'S SOME MORE, I HAVE IT IN THE SHOW NOTES HERE. BACKUP OF COURSE IS VERY, VERY IMPORTANT. OH I KNOW WHAT THE FIFTH ONE IS. DON'T DOWNLOAD FILES FROM UNKNOWN PLACES. IT'S REALLY IMPORTANT, PEOPLE WHO DO FILE SHARING, ESPECIALLY MUSIC FILE SHARING, ARE OFTEN DOWNLOADING UNWITTINGLY DOWNLOADING SPYWARE AND VIRUSES. WHERE YOU GET YOUR FILE-- A FILE IS DANGEROUS. TREAT IT AS DANGEROUS. QUARANTINE IT, AVOID IT IF YOU CAN. BUT IF YOU DO ALL THOSE THINGS-- ANOTHER ONE WOULD BE WHEN A WEBSITE ASKS YOU "MAY I INSTALL SOME SOFTWARE", SAY NO. JUST SAY NO. I PERSONALLY RECOMMEND THAT YOU LOCK DOWN YOUR BROWSER. NOW STEVE USES INTERNET EXPLORER BUT HE LOCKS IT DOWN BY SAYING "EVERYTHING IS UNTRUSTED UNLESS I SAY IT'S TRUSTED". YOU CAN DO THAT IN THE OPTIONS. I PERSONALLY USE FIREFOX AND I THINK THAT'S ANOTHER WAY TO GO. EITHER WAY WILL PREVENT A LOT OF SPYWARE INFECTIONS. NOW HAVING SAID THAT, YOU'VE GOT THE BEHAVIOUR, YOU'RE NOT GOING TO GET VIRUSES, BUT YOU STILL WANT ANTIVIRUS AND I DON'T BLAME YOU. THERE ARE TWO PLACES I'D GO TO LOOK. THE MOST RECENT IS av-comparatives.org. THIS IS AN ANTIVIRUS COMPARATIVE SITE. EVERY MONTH THEY TAKE A SET OF KNOWN VIRUSES. I THINK WELL OVER 500,000 DIFFERENT VIRUSES. [Pop captions up]

Leo Laporte : AND THEY TEST THESE ANTIVIRUSES AGAINST THEM AND THEY GIVE THEM SCORES. INTERESTINGLY, NORTON ANTIVIRUS DOES VERY WELL. EXCELLENT, HIGH AND EXCELLENT IN ITS RESULTS. [Pop captions down]

Leo Laporte : IT DETECTED 97% OF ALL VIRUSES THAT IT WAS THROWN AT. SO THAT

DOESN'T MEAN IT'S A BAD ANTIVIRUS, IT'S JUST BLOATED, IT SLOWS YOU DOWN. IT'S NOT INEFFECTIVE. THERE ARE BETTER ONES OUT THERE LIKE NOD32 WHICH IS MY FAVOURITE, IS A VERY GOOD ANTIVIRUS AND DOESN'T SLOW YOU DOWN. WINDOWS ONE CARE MICROSOFT IS THE WORST IN THE BUNCH, 82%; THAT MEANS IT MISSED 18% OF ALL VIRUSES. WHAT WAS THE BEST KASPERSKY LABS AND KASPERSKY WHICH IS A RUSSIAN ANTIVIRUS COMPANY WHEN USED WITH AVG, WHICH IS A FREE ANTIVIRUS. I THINK AVG-- THAT'S WHAT YOU RECOMMEND RIGHT STEVE?

Steve Gibson: I AGREE WITH YOU ABOUT NOD32, IT'S A GREAT ALTERNATIVE. BOTH OF THEM ARE SMALLER. THEY'RE NOT TRYING TO BE EVERYTHING FOR EVERYBODY. WHAT HAPPENED WAS THESE LARGE COMPANIES, SYMANATIC AND MCAFEE THEY STARTED GETTING INTO A FEATURE WAR WITH EACH OTHER AND THEY ADDED, ADDED, ADDED FEATURES. THE PROBLEM IS THEY'RE HOOKING SO DEEPLY INTO THE OPERATING SYSTEM THAT NOW THEY'RE EVEN FIGHTING WITH MICROSOFT BECAUSE VISTA IS LIKE HOSTILE TO THEM.

Leo Laporte : [Laughing] LET ME ASK YOU, WE DON'T KNOW WHO WON THE FEATURE WAR BUT WE KNOW WHO DID. WE DID. IF YOU'RE CURIOUS WHAT THE NUMBER ONE ANTIVIRUS, AT LEAST IN THE MOST RECENT AV- COMPARATIVE WAS ANTIVIRUS KIT, AVK FROM D-DATA SECURITY WHICH COMBINES KASPERSKY WITH AVG. 99.5% RELIABLE, ONLY MISSED-

Steve Gibson: AND A LIGHTER WEIGHT.

Leo Laporte : SO I USE NOD32 BUT AGAIN, I DON'T RUN IT IN THE BACKGROUND, I USE IT TO SCAN ONCE A WEEK IN CASE I BLEW IT SOMEHOW. I IMAGINE YOU DO SOMETHING SIMILAR.

Steve Gibson: YUP. IF YOUR SYSTEM GOES KIND OF STRANGE AND YOU WANT TO MAKE SURE THERE'S NOTHING CRAWLING AROUND, THEN YOU DO A SCAN WITH UPDATES.

Leo Laporte : HERE'S ANOTHER GOOD SITE IF YOU WANT MORE-- THIS IS ALSO INDEPENDENT LIKE AV-COMPARATIVES. IT'S THE VIRUS BULLETIN, virusbtn.com. AND THEY ALSO DO 100 WHERE THEY GIVE REWARDS FOR 100% DETECTION. THEIR RESULTS ARE PRETTY MUCH THE SAME AS AV-COMPARATIVES BUT IT'S WORTH READING THEM BOTH TO SEE-- DOWNLOAD AVG IT'S FREE. free.gri.soft.com YOU'LL BE PROTECTED. OKAY? [Pop captions up] Mike: THANKS LEO.

Leo Laporte : THANK YOU FOR THE CALL. [Pop captions down]

Leo Laporte : YOU'RE THE FIRST LINE OF DEFENCE AND ONCE YOU GET A VIRUS, YOU'RE GOING TO WISH YOU DIDN'T SO IT'S INCUMBENT ON EVERYBODY TO DO THE BEST THEY CAN. ALRIGHT, TIME TO TAKE A BREAK. WHEN WE COME BACK, WE'RE GOING TO TALK WITH ILLIAD. MORE OF YOUR CALLS TOO. ILLIAD WHO CREATED THE USER FRIENDLY COMIC STRIP ON LINE. YOU STAY RIGHT HERE. [Commercial]

Leo Laporte : HI WELCOME BACK TO THE LAB WITH LEO. I LOVE IT WHEN STEVE GIBSON IS HERE BECAUSE THEN I DON'T HAVE TO WORK SO HARD. I JUST ASK STEVE TO GIVE THE ANSWER. LET'S SEE IF WE CAN GET ANOTHER CALLER-- Ms. KATE ABRAHAM.

Kate Abraham : WE HAVE IAN DOWN THE ROAD FROM RICHMOND, B.C. JUST GOT BACK FROM SCHOOL.

Leo Laporte : I HEARD RICHMOND IS THE SUNNY PART OF VANCOUVER.

Kate Abraham : I HAVEN'T VENTURED THAT FAR OUT YET.

Leo Laporte : I HEARD IT DOESN'T RAIN. IS IT RAINING RIGHT NOW IAN IN RICHMOND? Ian: NOT REALLY.

Leo Laporte : IT'S RAINING HERE BUT IT'S NOT RAINING IN RICHMOND. THE SUNNYSIDE OF THE STREET. WHAT CAN I DO FOR YOU IAN? Ian: RECENTLY I JUST INSTALLED WINDOWS VISTA OUTFIT WHICH I BOUGHT FROM FUTURE SHOP.

Leo Laporte : OH HOW NICE. Ian: IT LOOKS REALLY GOOD AND I INSTALLED IT AN ALL THAT, BUT I COMPLETELY FORGOT TO DUAL BOOT IT.

Leo Laporte : SO WHEN YOU BOUGHT THE MACHINE DID IT HAVE VISTA ON IT? Ian: NO, JUST XP.

Leo Laporte : IT WAS AN XP MACHINE. AND YOU INSTALLED VISTA-- Ian: YES.

Leo Laporte : AND WIPED OUT XP, UPGRADED IN OTHER WORDS. BUT YOU WANT XP BACK. Ian: YEAH.

Leo Laporte : IT'S FUNNY I HAD THIS LONG DISCUSSION ON THE RADIO SHOW A VIEW WEEKS BACK ON WHAT YOU COULD DO-- IS THERE A WAY TO KEEP VISTA AND THEN INSTALL XP. OBVIOUSLY YOU'D HAVE TO MAKE A PARTITION. YOU COULD INSTALL XP, THE PROBLEM IS IT'S MUCH EASIER TO DO IT WITH XP FIRST AND THEN VISTA BECAUSE WHAT HAPPENS IS WHEN VISTA SEES XP, IT WILL MAKE A NEW PARTITION, IT WILL PUT A BOOT LOADER ON THE XP DRIVE, XP DOESN'T KNOW ABOUT VISTA BUT VISTA KNOWS ABOUT XP. PUT A BOOT LOADER ON THE XP DRIVE THAT THEN SAYS OKAY NOW WHAT DO YOU WANT? YOU WANT ME OR VISTA? UNFORTUNATELY IF YOU ALREADY HAVE VISTA ON THERE, YOU CAN MAKE A PARTITION, YOU CAN PUT XP ON BUT XP GOING TO IMMEDIATELY OVERWRITE THE MASTER BOOT RECORD AND WHEN YOU NEXT TURN YOUR MACHINE ON, THERE'S NOT GOING TO BE A TRACE OF VISTA. IT'LL STILL BE ON THE HARD DRIVE TAKING UP SPACE BUT YOU WON'T BE ABLE TO BOOT IT. THEN IT MAY BE POSSIBLE AT THAT POINT, I DON'T THINK SO, BUT POSSIBLE PERHAPS WITH A THIRD PARTY BOOT LOADER. I KNOW PEOPLE WHO SWEAR THEY'VE DONE THIS, TO MAKE THIS WORK. IT'S MUCH BETTER REALLY AT THIS POINT-- HAVE YOU DONE A LOT OF WORK WITH THE COMPUTER? HAVE YOU PUT A LOT OF STUFF ON IT. Ian: OH TOTALLY.

Leo Laporte : OH RATS. CAUSE THE EASIEST THING TO DO WOULD BE TO WIPE THE DRIVE AND INSTALL XP. Ian: I TRIED THAT BEFORE. I TRIED MANY SOLUTIONS, I CHECKED ON THE INTERNET ABOUT EDITING FROM THE XP PART. [Pop captions up] Ian: BUT THE PROBLEM HERE IS IT'S SO STRANGE BECAUSE WHEN I DO WIPE OUT VISTA AND PUT IN AN XP CD. [Pop captions down] Ian: DO YOU KNOW WHEN YOU INSTALL XP IT SHOWS ALL THE PARTITIONS IN THE DRIVE--

Leo Laporte : WHERE DO YOU WANT TO INSTALL IT. Ian: BUT THIS DOESN'T SHOW THAT AT ALL.

Leo Laporte : IT DOESN'T SHOW THE VISTA PARTITION. Ian: IT DOESN'T SHOW ANY PARTITION AT ALL.

Leo Laporte : CAN YOU THEN CREATE PARTITIONS? Ian: NO I CAN'T.

Leo Laporte : IT DOESN'T SHOW ANY FREE SPACE. Ian: NO.

Leo Laporte : HAVE YOU WIPED THE DRIVE BEFORE YOU DO IT. IS VISTA ON THERE OR DID YOU ERASE THE DRIVE FIRST? Ian: I ERASED THE DRIVE FIRST AND THEN I TRIED PUTTING THE XP IN AND IT COULDN'T FIND ANY EMPTY PARTITIONS.

Leo Laporte : HERE'S WHAT YOU HAVE TO DO. WHEN YOU FIRST START THE XP INSTALLER, RIGHT AT THE BEGINNING IT SAYS PRESS F6 TO INSTALL NEW DRIVERS. THE PROBLEM IS XP DOESN'T KNOW ABOUT YOUR SATA DRIVES. IT'S A NEW MACHINE AND IT DOESN'T HAVE DRIVER FOR THOSE DRIVES. THERE SHOULD BE A FLOPPY OR CD THAT CAME WITH THE COMPUTER THAT HAS DRIVERS FOR THAT PARTICULAR HARD DRIVE. YOU'LL SEE RIGHT AT THE BOTTOM, RIGHT AT THE BEGINNING, "PRESS F6 TO INSTALL ADDITIONAL DRIVERS". [Pop captions up]

Leo Laporte : AT THAT POINT, YOU STICK THE DISK IN, IT'LL LOAD IN THE DRIVERS AND THEN IT'LL SEE THE DISK AND YOU'LL BE ABLE TO GO FROM THERE. Ian: OH.

Leo Laporte : THAT'S FAIRLY COMMON UNFORTUNATELY. CAUSE XP IS FIVE YEARS OLD, DOESN'T KNOW ABOUT THINGS LIKE NEW HARD DRIVES. [Pop captions down]

Leo Laporte : OKAY IAN, WHAT SCHOOL DO YOU GO TO? Ian: I GO TO McNEIL.

Leo Laporte : McNEIL IN BEAUTIFUL RICHMOND? Ian: YEAH.

Leo Laporte : AND WHAT IS THE McNEIL MASCOT? Ian: IT'S A RAVEN.

Leo Laporte : GO RAVENS! Ian: YEAH.

Leo Laporte : [Cawing] HEY I CAN BE THE MASCOT. THANK YOU IAN. [Cawing] [Pop captions up]

Leo Laporte : LET'S DO OUR QUIZ QUESTION AND THEN IT'S ILIAD TO TALK ABOUT ONLINE CARTOONING AND COMICING. [Pop captions down] [Blank for boards]

Leo Laporte : GO TO THE \AIEBSITE, GIVE US THE ANSWER \AIE'LL TALK ABOUT IT AS THE LAB RETURNS. [Commercial] [Blank for boards]

Leo Laporte : \AIELCOME BACK TO THE LAB. BEFORE THE LAB WE ASKED YOU \AIROTE THE FIRST COMPILER FOR A COMPUTER LANGUAGE? \AIILL IT HELP IF I TELL YOU THE LANGUAGE WAS COBOL? \AIILL IT HELP IF I TOLD YOU IT WAS 1963? IT WAS ADMIRAL

GRACE HOPPER. \AIHEN DID SHE WRITE IT? 50'S, REALLY?COBOL. THAT'S ANOTHER QUIZ QUESTION, WHAT COBOL STANDS FOR. GRACE HOPPER PASSED AWAY A YEAR OR SO AGO BUT SHE REALLY WAS ALEGENDARY FIGURE IN COMPUTER SCIENCE. AND AS MENTIONED IN THE EARLIER QUIZ, MAYBE IT WAS THE LATER QUIZ--LATER QUIZ, WE'LL TALK ABOUT HER SOME MORE. HEY I WANT TO TALK ABOUT J.D. FRAZER WHO IS ONE OF MY FAVOURITE CARTOONIST.HE'S ILLIAD AND YOU SEE HIS CARTOONS, AND YOU HAVE FOR THE LAST 10 YEARS ON THE INTERNET, USER FRIENDLY. SO GREAT TO SEE YOU.WE TALKED ON THE SCREENSAVERS MAYBE FIVE OR SIX YEARS AGO. HAS IT BEEN THAT LONG?

Leo Laporte : YEAH. PATRICK AND I LOVEDUSERFRIENDLY. PATRICK WOULD COME TO ME, I WOULD SAY AT LEAST WEEKLY AND SAY, LOOK AT THIS, LOOK AT THIS. BECAUSE YOU COVER OPEN COURSE. [Pop captions up]

J.D. ILLIAD FRAZER: I SPEND A LOT OF TIME ON TECH ISSUES, EVEN POLITICS AROUND TECH ISSUES, SOCIAL IMPACT-- [Pop captions down]

Leo Laporte : HERE'S ONE, YOU'LL RECOGNIZE THEM BECAUSE THEY'RE SHARED ALL OVER THE INTERNET.YOU WANT TO READ THIS ONE OUT LOUD TO US?

J.D. Illiad Frazer : SURE. MIRANDA SAYS "WELL DON YOU'VE CREATED A MURDEROUS BEERFRIDGE." NOW A LITTLE BIT OF BACK STORY. THERE WAS A STUDENT AT DUKE UNIVERSITY WHO CREATED A BEER FRIDGE HIT A BUTTON ON A REMOTECONTROL WOULD LAUNCH A BEER 20 FEET AWAY TO HIS COUCH.

Leo Laporte : THERE'S A VIDEO ON UTUBE OF HIM CATCHING BEER AFTER BEER.

J.D. Illiad Frazer : I WISH I WAS THAT CLEVER.

Leo Laporte : YOU NEED TO KNOW THE BACKGROUND BECAUSE THAT'S THE FUN.THEY'RE IN JOKES IN THE GEEK COMMUNITY.

J.D. Illiad Frazer : THAT'S RIGHT 80% OF THE PEOPLE WHO READ THE STRIP ARE GEEKS.SO MIKE WHO'S THE FELLOW DOWN THERE KNEELING BY THE FRIDGE WITH THE HAT OFF SAYS "THERE MUST BE SOMETHING WRONG WITH THE THREE LAWS LOGIC."MIRANDA REPLIES, WHAT THREE LAWS? ASIMOV'S THREE LAWS OF ROBOTICS. NEVER HARM HUMAN BEINGS BEING ONE OF THEM.MIRANDA SAYS, "WHY DO YOU NEED THREE LAWS FOR A BEER DISPENSER?" AND MIKE SAYS, "NOTE THE GROWING PURPLE CONTUSION ON MYFOREHEAD?" THE PREVIOUS CARTOON HAS THAT BEER CAN NAILING HIM RIGHT BETWEEN THE EYES.

Leo Laporte : [Laughing] INTHERE YOU ALREADY HAVE TWO MAJOR REFERENCES TO GEEK-ARKANA THAT ONLY A GEEK WOULD GET. THE ASIMOV'S LAWS AND THIS BEER FRIDGE.YOU'VE NEVER SHIED AWAY FROM DOING THAT.

J.D. Illiad Frazer : NO BECAUSE THAT'S THE NICHE THAT I LIKE TO ADDRESS.THAT'S WHO I AM AND IT'S PEOPLE THAT I LIKE TO SPEAK TO.

Leo Laporte : AND I THINK IT'S A SECRET TO YOUR POPULARITY BECAUSE IF YOU'RE THAT

KIND OF PERSON YOU GET THIS. AND THAT RAISES THE WHOLE ISSUE AND YOU'VE ACTUALLY WRITTEN A BOOK ABOUT THIS, TALKED ABOUT THIS, HOW TO BECOME A CARTOONIST, A PUBLISHED CARTOONIST WITHOUT GOING THROUGH UNITED FEATURES SYNDICATE OR ONE OF THE BIG NEWSPAPERS.

J.D. Illiad Frazer : NAME OF THE BOOK IS MONEY FOR CONTENT, CLICKS FOR FREE. YOU CAN FIND IT ON AMAZON. IT'S AVAILABLE THERE. THE PREMISE BEHIND IT IS TO SHY AWAY FROM THE OLD INFRASTRUCTURE. FROM THE WAY THAT PEOPLE HAVE BEEN DOING THINGS FOR A VERY LONG TIME. AND WE CAN DO THIS BECAUSE THE INTERNET EXISTS.

Leo Laporte : AND IT'S NOT JUST CARTOONISTS. IT'S MUSICIANS, IT'S TELEVISION PERFORMERS. ANY FORM OF MEDIA.

J.D. Illiad Frazer : COLUMNISTS FOR EXAMPLE, THEY DON'T NEED TO GO THROUGH A SYNDICATE.

Leo Laporte : YOU'VE GOT BLOGS.

J.D. Illiad Frazer : BLOGS ARE EVERYWHERE.

Leo Laporte : SO 10 YEAR AGO, 1997, VERY EARLY ON, WERE YOU A CARTOONIST AT THE TIME?

J.D. Illiad Frazer : I WAS A SCRIBBLER AT THE TIME. ARGUABLY I STILL AM--

Leo Laporte : NO, PRETTY GOOD.

J.D. Illiad Frazer : THANK YOU. I'M MORE OF A WRITER THAN AN ARTIST MOSTLY SO THE ART SUPPORTS THE WRITING. HOWEVER I DID SCRIBBLE FOR A TIME. I DID HAVE AN IDEA FOR A CARTOON.

Leo Laporte : DID YOU HAVE A DREAM OF GOING TO UNITED FEATURES?

J.D. Illiad Frazer : OH YES, MOST CARTOONISTS DO. PEOPLE WHO HAVEN'T BECOME CARTOONISTS AND EVEN WHEN YOU ARE A CARTOONIST. WHAT YOU WANT TO DO IS JUST DRAW FUN STUFF EVERY DAY, HAVE YOUR VOICE OUT THERE AND THE BIG POWERFUL SYNDICATES WILL TAKE CARE OF YOU.

Leo Laporte : AND GET PAID. SO DID YOU PURSUE THAT?

J.D. Illiad Frazer : I DID. I DID ABOUT A DOZEN CARTOONS, THE VERY BEST WORK I COULD DO. SENT THEM TO THE SIX BIG SYNDICATES AND VERY PROMPTLY GOT SIX REJECTION LETTERS.

Leo Laporte : AND WHAT WAS THE COMMON THREAD IN THE REJECTION LETTERS?

J.D. Illiad Frazer : WELL--

Leo Laporte : YOU STINK, YOU'RE NOT FUNNY--

J.D. Illiad Frazer : NEVER QUITE LIKE THAT. WHAT THEY SAY IS NOT SUITABLE FOR OUR NEEDS AT THIS MOMENT AND IT WAS ALMOST LIKE A XEROX. IF YOU LOOKED AT ALL SIX OF THEM, THEY LOOKED LIKE THEY ALLCAME FROM THE SAME COPY.

Leo Laporte : THEY MAKE A FEW OF THOSE A DAY I'M SURE. SO WHAT DID YOU DO NEXT?

J.D. Illiad Frazer : I GAVEUP. WHAT ELSE COULD YOU DO? SYNDICATES SAY NO BECAUSE THAT'S THE WAY THE OLD INFRASTRUCTURE WORKED. YOU'VE GOT NO PLACE TO GO AND ALL OF A SUDDEN THE NET SHOWS UP WITH THE WEB. [Pop captions up]

Bill Jelen: IT GETS REALLYBIG AND I SAID TO MYSELF "MAYBE I SHOULD DO SOMETHING ON THE WEB". NOW THIS WAS NOT TO GET POPULAR. [Pop captions down]

Bill Jelen: THIS WAS SOLELY FOR ME TO GET A VENUE WHERE I COULD VENT.

Leo Laporte : I THINK THAT'S WHAT MOTIVATES A LOT OF PEOPLE. YOU DON'T EXPECT TO GET RICH AND FAMOUS DOING IT BUT YOU DO IT BECAUSE IT GIVES YOU A CHANCE TO HAVE A VOICE. SO HOW HARD WAS THAT TO DO?

J.D. Illiad Frazer : IT WASN'T. IT WAS ACTUALLY VERY SIMPLE. AS IT TURNS OUT, I WAS THE WEB SERVICES MANAGER OF AN ISP ATTHE TIME SO I HAD ACCESS TO BIG EXPENSIVE WEB SERVER AND ALL THE HOSTING I COULD USE AND SURE ENOUGH I DID USE THEM.

Leo Laporte : HOW MANY COMICSLATER, 10 YEARS?

J.D. Illiad Frazer : OH GEEZ...ONE A DAY, EVERY DAY--

Leo Laporte : REALLY? YOU NEVER MISSED A DAY?

J.D. Illiad Frazer : NOT A DAY. I TRY NOT TO COUNT--

Leo Laporte : DON'T STOP.

J.D. Illiad Frazer : BECAUSEEVERY ONE OF THOSE COMIC STRIPS MEANS I'M A DAY OLDER.

Leo Laporte : AND YOU HAVE SOME PARTICULAR FAVOURITES?

J.D. Illiad Frazer : I DON'TBUT A LOT OF OTHER PEOPLE DO. LIKE A LOT OF ARTISTS, ONCE YOU FINISH SOMETHING, YOU DON'T LIKE TO LOOK AT PAST WORK BECAUSE IT REMINDS YOU OF HOW BAD YOU WERE.

Leo Laporte : WHAT'S GREAT AND I THINK THIS IS REALLY TRUE AND THIS IS SOMETHING THAT IS NEW. IN THE OLD DAYS TO BECOME SUCCESSFUL IN THE MASS MEDIA, YOU HAD TO HIT A MASS AUDIENCE. NOWADAYS, AND THIS IS WHAT WE DO, AND IT'S WHAT A LOT OF PEOPLE DO ON THE WEB, YOU CAN TARGET AN AUDIENCE. YOU CAN SAY "I'M GOING TO WRITE A COMIC STRIP FOR OPEN SOURCE GEEKS" AND NOT ONLY FIND AN AUDIENCE

BUT A VERY GOOD AUDIENCE.CAN YOU MAKE A LIVING DOING THIS?

J.D. Illiad Frazer : YOU CAN MAKE A LIVING IF YOU TRY HARD ENOUGH, IF YOU'RE GOOD ENOUGH--ACTUALLY WHEN IT COMES TO FINDING OUT IF YOU'RE GOOD ENOUGH, IT'S UP TO THE AUDIENCE. IF THEY SAY YOU'RE GOOD ENOUGH, YOU CAN MAKE A LIVING FROM IT.

Leo Laporte : AND IT'S BEEN GOOD FOR YOU.

J.D. Illiad Frazer : IT'S BEEN JUST FINE FOR ME.

Leo Laporte : YOUR ADVICE TO ABUDDING CARTOONIST.

J.D. Illiad Frazer : WELL ONE OF TWO THINGS YOU WILL ABSOLUTELY HAVE TO DO. YOU WILL EITHER HAVE TO ACCEPTTHE FACT THAT YOU WILL ONLY MAKE BEER MONEY FROM IT.

Leo Laporte : DO IT FOR THE LOVE OF IT.

J.D. Illiad Frazer : DO IT FORTHE LOVE OF IT AND YOU ACTUALLY HAVE A LIFE, OR YOU DON'T HAVE A LIFE BUT YOU CAN MAKE A LIVING FROM IT.

Leo Laporte : I TELL THAT TOPODCASTERS TOO. I JUST SAY FOLLOW YOUR PASSIONS, DO WHAT YOU LOVE, EVERYTHING ELSE TAKES CARE OF ITSELF AFTERWARDS.J.D. FRAZER IS ILLIAD AND I THINK IT'S THE BEST GEEK COMIC STRIP EVER. AND IT IS AVAILABLE ONLINE AT userfriendly.org AND THE BOOK ISAVAILABLE AT amazon.ca MONEY FOR CONTENT AND YOUR CLICKS FOR FREE. WE'LL BE RIGHT BACK WITH CLOSING WORDS, STAY RIGHT HERE. [Commercial]

Leo Laporte : HAVE YOU READ USERFRIENDLY? NO.

Leo Laporte : YOU'VE GOT TO,IT'S SO GREAT. HAVE YOU EVER SAID, HAD A REFERENCE IN THE COMIC YOU THOUGHT WAS SO GEEKY NOBODY WOULD EVER GET IT?

J.D. Illiad Frazer : YES I DID. I DID A CARTOON STRIP THAT I REFERRED TO AN IP ADDRESS THAT BELONGED TO RED HOT SERVERS ANDTHEY GOT IT.

Leo Laporte : PEOPLE GOT IT. YOU CAN'T GET AWAY WITH ANYTHING WITH GEEKS. AND WHAT DO YOU THINK OF ALLTHIS?

Kate Abraham : RIGHT OVER MY HEAD.

Leo Laporte : THANK YOU FOR JOINING US.WE WANT TO REMIND YOU, GO TO OUR WEBSITE labwithleo.com. THAT'S WHERE YOU CAN SIGN UP TO ASK A QUESTION ON THE AIR. WE'D LOVE TO GET YOU ON THESHOW. WE ARE GLAD YOU WERE HERE TODAY AND WE HOPE YOU'LL COME BACK. I'M LEO LAPORTE, SEE YOU LATER. [Pop captions up]CLOSED CAPTIONING PERFORMED BY: BROADCAST CAPTIONING & CONSULTING SERVICES INC. www.closedcaptioning.com [Pop captions down]