

**TELECOMMUNICATION EVOLUTION AND
ITS IMPACT IN KOSCIUSKO COUNTY**

**KLA White Paper
by
Gene M. Haskins**

**Warsaw Community Public Library
Vertical File**

WE IN KOSCIUSKO COUNTY, ALONG WITH THE REST OF THE NATION, ARE AT THE PRECIPICE OF CHANGES IN THE TELECOMMUNICATIONS INDUSTRY THAT WILL USHER IN A NEW AGE IN HOW WE COMMUNICATE. A PART OF THIS CHANGE WILL INVOLVE A CONCEPT CALLED INTERACTIVE MULTIMEDIA. SIMPLY STATED, INTERACTIVE MULTIMEDIA IS THE MERGING OF THE TELEPHONE, PERSONAL COMPUTER, AND TELEVISION. THIS PAPER WILL EXPLORE SOME OF THE POSSIBLE RAMIFICATIONS OF THIS CHANGE, WHAT TOLL COMPETITION PLAYS IN THE CHANGE PROCESS, AND HOW IT RELATES TO OUR HOME, BUSINESS, AND DAILY LIVES IN GENERAL.

HOW DID WE ARRIVE AT THE POINT WHERE INTERACTIVE MULTIMEDIA IS POSSIBLE? THE MOST LIKELY STARTING POINT OCCURED OVER TEN YEARS AGO WHEN JUDGE HAROLD GREENE PROVIDED FOR THE BREAK-UP OF THE BELL SYSTEM. ALTHOUGH NONE OF KOSCIUSKO COUNTY IS PART OF THE BELL SYSTEM, THIS DECISION IMPACTED US IN THE FOLLOWING WAY-IT ALLOWED US A CHOICE IN THE ARRAY OF LONG DISTANCE PROVIDERS OF WHICH AT&T, SPRINT, AND MCI ARE THE MAJOR PLAYERS. IT IS RELEVANT TO KEEP IN MIND THAT TEN YEARS AGO, AT&T WAS THE ONLY TOLL PROVIDER AND AT THAT SAME TIME MCI WAS A MERE UPSTART, OFTEN DESCRIBED AS BEING IN THE BUSINESS OF LITIGATION RATHER THAN COMMUNICATION, AND SPRINT CONSISTED OF A SERIES OF MICROWAVE CHANNELS ALONG THE RIGHT-OF-WAY OF A WESTERN RAILROAD. TEN YEARS LATER WE ARE AT A POINT WHERE AT&T HAS LOST OVER 35% OF THE LONG DISTANCE MARKET SHARE, MCI IS AS LARGE AS AT&T AT THE TIME OF DIVESTITURE, AND SPRINT SPANS

THE NATION WITH AN ALL DIGITAL FIBER OPTIC NETWORK. (@1) ALSO, PREVIOUS TO THIS TIME, THE TELEPHONE SYSTEM WAS A REGULATED MONOPOLY. WITH THE BELL BREAK UP, THE LONG DISTANCE PORTION NOT ONLY BECAME COMPETITIVE BUT ALSO AN ADDITIONAL PORTION OF THE NETWORK, INCLUDING THE WIRING FROM THAT LITTLE GRAY BOX ON THE SIDE OF YOUR HOUSE AND THE PHONE THAT SITS AT THE END OF IT, ALSO BECAME DEREGULATED AND SUBJECT TO COMPETITION. TO THE AVERAGE CONSUMER, THIS SIMPLY MEANT THAT YOU COULD OWN YOUR TELEPHONE IN LIEU OF LEASING IT FROM THE LOCAL PHONE COMPANY, BUT IT ALSO CRACKED THE DOOR TO MAKE INTERACTIVE MULTIMEDIA A REALITY. THIS IS A RATHER ABBREVIATED EXPLANATION OF A VERY COMPLICATED SERIES OF EVENTS, BUT IT LEADS TO A MORE RECENT SERIES OF CHANGES WHERE WE BEGIN TO HEAR MUCH MORE ABOUT THE WORD COMPETITION AND HOW IT IMPACTS INTERACTIVE MULTIMEDIA.

THE FOLLOWING FIVE EXAMPLES THAT I AM GOING TO CITE SEEM RATHER GLOBAL IN NATURE AND ONE WOULD OBVIOUSLY WONDER WHAT IMPACT THEY MIGHT HAVE TO A KOSCIUSKO COUNTY RESIDENT AND COMMUNICATIONS AT THE LOCAL LEVEL-I WILL ATTEMPT TO RELATE THE IMPORTANCE OF EACH EVENT AS IT IS EXPLAINED. THESE CERTAINLY AREN'T THE ONLY FACTORS THAT HAVE SHAPED INTERACTIVE MULTIMEDIA BUT ONE CAN GET THE FLAVOR OF THE FORCES OF CHANGE.

1. EARLY IN 1993, US WEST, ONE OF THE SEVEN REGIONAL BELL COMPANIES, AND TIME WARNER, THE NATION'S SECOND LARGEST CABLE TELEVISION COMPANY AND PROVIDER OF

CABLE SERVICE TO THE GREATER WARSAW AREA, ANNOUNCED A JOINT PARTNERSHIP WHERE US WEST BECAME PART OWNER OF TIME WARNER. WITH THIS PARTNERSHIP, US WEST AGREED TO HELP UPGRADE TIME WARNER'S CABLE NETWORKS TO CARRY INTERACTIVE VIDEO, DATA, AND VOICE SERVICES. ACCORDING TO JACK GRUBBMAN, A TELECOMMUNICATIONS ANALYST, "IT WON'T BE LONG BEFORE TIME WARNER WITH US WEST BEHIND IT WILL OFFER RESIDENTIAL DIALTONE SERVICE." (@2) IF ALL SHOULD GO ACCORDING TO PLAN, MANY OF TIME WARNER'S 7.1 MILLION CABLE CUSTOMERS WILL BE ABLE TO CHOOSE BY THE END OF THIS DECADE WHETHER THEY WANT TO BUY LOCAL PHONE SERVICE FROM TIME WARNER CABLE. THE FLIP SIDE OF THIS COIN IS THE LIKLIHOOD THAT LOCAL EXCHANGE PHONE COMPANIES WILL ALSO OFFER CABLE SERVICES-THE POINT HERE IS THAT COMPETITION WILL BE A FACT OF LIFE.

2. EVENT TWO CONCERNS THE PURCHASE OF McCAW CELLULAR COMMUNICATIONS BY AT&T. McCAW IS THE NATION'S LARGEST CELLULAR PHONE COMPANY. ITS PURCHASE BY AT&T REFLECTS AT&T'S INTENTIONS OF DEVELOPING A WORLDWIDE WIRELESS NETWORK WHICH WOULD BE IN COMPETITION EVENTUALLY WITH PROVIDERS OF LOCAL TELEPHONE SERVICE. CRAIG McCAW, CEO OF McCAW CELLULAR HAS STATED, "THE HOME TELEPHONE WILL

GO THE WAY OF THE DINOSAURS, DRIVEN TO EXTINCTION BY PERSONAL DIGITAL ASSISTANTS." IN REPLY TO THIS STATEMENT, PROFESSOR STEVE SCHNAARS STATES, "MAYBE IN THE YEAR 2020, BUT FOR A LONG TIME, WIRELESS DATA DEVICES WILL BE LIMITED LARGELY TO THE MOST AFFLUENT 20% OF THE POPULATION. MR. McCAW MAY HAVE FALLEN INTO THE TRAP OF UNBRIDLED OPTIMISM BROUGHT ON BY A LOVE OF EXOTIC TECHNOLOGY." (@3) I MENTION THIS EVENT TO ILLUSTRATE THAT WE AS END USERS WILL MORE THAN LIKELY HAVE CHOICES IN THE FUTURE BUT PREDICTING THE FUTURE OF NEW TECHNOLOGY IS PERILOUS. (ON 4\5\94 A DISTRICT COURT JUDGE RULED AT&T'S PROPOSED ACQUISITION OF McCAW VIOLATED THE DIVESTITURE DECREE THAT BROKE AT&T AWAY FROM THE BELL COMPANIES AND HAS SLOWED THE 12.6 BILLION MERGER OF THESE TWO COMPANIES.) (@4)

3. SIMILARILY, A THIRD EVENT WAS THE PURCHASE OF A 20% STAKE IN MCI BY BRITISH TELECOM EARLIER THIS YEAR. THE FOUR BILLION DOLLAR DEAL PROVIDES A CASH INFUSION FOR MCI TO FINANCE EXPANSION INTO NEW MARKETS, ONE OF WHICH IS THE PROVISION OF LOCAL PHONE SERVICES IN SELECT AREAS. MCI WILL THEN HAVE THE LOCAL PORTION OF THE NETWORK THAT ENABLES THEM TO REACH THEIR LONG DISTANCE CUSTOMERS. AGAIN, THE POINT TO REMEMBER HERE

IS COMING COMPETITION AT THE LOCAL LEVEL AND SEVERAL POTENTIAL PROVIDERS OF A NETWORK CAPABLE OF PROVIDING INTERACTIVE MULTIMEDIA.

4. THE FOURTH AND FIFTH EVENTS CONCERN CABLE TV ISSUES. THIS LAST FALL, A U.S. DISTRICT COURT JUDGE RULED THAT THE TELCO\CABLE CROSS-OWNERSHIP RESTRICTION OF THE CABLE ACT OF 1984 WAS UNCONSTITUTIONAL. THIS WOULD ALLOW THE LOCAL TELEPHONE COMPANY TO BE ABLE TO PROVIDE VIDEO SERVICES OVER THEIR OWN NETWORKS IN THEIR OWN TERRITORIES.

5. THE FIFTH AND LAST EVENT CONCERNS THE LARGEST POTENTIAL MERGER IN CORPORATE HISTORY. IN OCTOBER, 1993, BELL ATLANTIC LAUNCHED A BID TO ACQUIRE TELECOMMUNICATIONS INC., TCI, THE LARGEST CABLE COMPANY IN THE UNITED STATES. THIS DEAL, WHICH CAME VERY CLOSE TO REALITY BEFORE FALLING THROUGH IN FEBRUARY 1994 (WHILE IN THE MIDDLE OF DOING THIS PAPER) WOULD BE CAPABLE OF PROVIDING TELEVISION SERVICES TO APPROXIMATELY 40% OF THE NATIONS HOUSEHOLDS AND CONTROL 23% OF THE U.S. CABLE TV MARKET. THE ULTIMATE INTENTION OF THIS MERGER AND SIMILAR ONES LIKE IT, IS TO OFFER CUSTOMERS A ONE STOP SHOPPING SOURCE FOR LOCAL CABLE AND TELEPHONE SERVICE. (@2) THERE IS NO

DOUBT THESE CHANGES WILL EVENTUALLY BE FELT LOCALLY
WITHIN THE NEXT SEVERAL YEARS.

DISCUSSION TO THIS POINT HAS BEEN MAINLY CENTERED AROUND THE
WIRE BASED NETWORKS THAT WILL MAKE MULTIMEDIA POSSIBLE. BEFORE WE
MOVE ON TO WHAT WE WILL BE ABLE TO PUT ON THE END OF THESE
NETWORKS, A BRIEF DISCUSSION OF WIRELESS TECHNOLOGIES IS IN ORDER.
IN TOMORROW'S WIRELESS WORLD, VOICE AND DATA WILL TRAVEL THROUGH
THE AIR UNFETTERED BY TELEPHONE LINES.

WIRELESS CAN GENERALLY BE THOUGHT OF IN TWO CATEGORIES;
CELLULAR PHONE SERVICE AND PCN'S (PERSONAL COMMUNICATIONS
NETWORKS). WE'RE ALL FAMILIAR WITH CELLULAR SERVICES BUT PCN IS
RELATIVELY NEW. THIS YEAR, THE FEDERAL COMMUNICATIONS COMMISSION
WILL OPEN UP BIDDING FOR SPECTRUM SEGMENTS TO BE USED FOR PCN.
SERVICES WILL INCLUDE LIGHTWEIGHT WIRELESS PHONES, WIRELESS E-MAIL,
PERSONAL DIGITAL ASSISTANTS, AND CAR ALARMS TO NAME A FEW. I'M NOT
GOING TO GO INTO GREAT DETAIL CONCERNING PCN BUT WOULD LIKE TO
QUOTE FROM AN ARTICLE BY PETER HUBER, A NOTED TELECOMMUNICATIONS
ANALYST. "IN COMMUNICATIONS, MOST CUSTOMERS DON'T MATTER. THE
CUSTOMERS WHO DO MATTER ARE THE 10% WHO IN FACT GENERATE 90% OF
TELEPHONE REVENUES. THE 12 MILLION CELLULAR PHONES NOW IN USE
AREN'T MUCH COMPARED WITH THE 140 MILLION LAND-LINES. BUT THEY ARE
ALREADY A BIG DEAL WHERE THEY MATTER-AMONG THE 35 MILLION BUSINESS
SUBSCRIBERS TO THE LAND-LINE NETWORK. WIRELESS PROVIDERS WILL BE
CONTACTING GENERAL MOTORS ABOUT NEW WIRELESS PHONES BEFORE IT

CONTACTS AUNT GWENDOLYN IN MISSOULA." (@3) ONE CAN SUBSTITUTE MENTONE FOR MISSOULA AND GET THE MESSAGE HERE! ALTHOUGH RAPID GROWTH IS FORECAST FOR THE PCN INDUSTRY, MANY TELECOMMUNICATION ANALYSTS ARGUE THAT BY THE TIME PCN BECOMES WIDELY AVAILABLE IN THREE TO FIVE YEARS, THE DIFFERENCES BETWEEN PCN AND CELLULAR TECHNOLOGIES WILL NARROW CONSIDERABLY. (@6)

OF MORE IMMEDIATE IMPACT TO THE LOCAL AREA IS THE CELLULAR PHONE INDUSTRY. CELLULAR BEGAN IN 1984 AND IS CURRENTLY AN 11 BILLION DOLLAR INDUSTRY. IN THE LAST TWO TO THREE YEARS WE AS COUNTY RESIDENTS HAVE GONE FROM A VERY LIMITED COVERAGE AREA TO WHERE ONE CAN NOW USE CELLULAR COUNTY-WIDE. ALTHOUGH ALL CURRENT PROVIDERS OF CELLULAR USE ANALOG TECHNOLOGY, WHICH CONVERTS SPEECH TO SOUND WAVES, DIGITAL CELLULAR IS NOW EMERGING WHICH CONVERTS NOT ONLY SPEECH BUT ALSO TEXT, GRAPHICS AND VIDEO TO A STREAM OF ONES AND ZEROES. THIS CREATES AN ARENA FOR CELLULAR OR PCN PROVIDERS TO DELIVER MANY MORE SERVICES THAN THE COMMON MOBILE TELEPHONE SERVICES IT IS MAINLY ASSOCIATED WITH IN TODAY'S WORLD. FOR YEARS, TECHNOLOGY AND COSTS HAVE CONSPIRED TO ENSURE THAT MOST COMMUNICATIONS FLOW THROUGH WIRES, AND THE GADGETS WE USE TO COMMUNICATE-PHONES, FAXES, COMPUTERS, ETC. WERE TETHERED TO THOSE WIRES. ADVANCES IN MICROCHIPS AND SOFTWARE AND THE CONSTRUCTION OF SOPHISTICATED WIRELESS NETWORKS CAN AND ARE CHANGING THIS EQUATION WHETHER YOU LIVE IN WARSAW OR WASHINGTON.

ENOUGH SAID ABOUT THE NETWORK; I HOPE THE PRECEDING PAGES

ILLUSTRATE THE FACT, THAT IN ALL LIKLIHOOD, THERE WILL BE SEVERAL WAYS AND\OR MEDIUMS FOR AN AVERAGE CUSTOMER TO ACCESS SERVICES THAT MAKE INTERACTIVE MULTIMEDIA POSSIBLE. ALTHOUGH MOST WILL BE AVAILABLE IN THE LARGER METROPOLITAN AREAS INITIALLY, THESE SAME TECHNOLOGIES WILL NOT BE FAR BEHIND FOR KOSCIUSKO COUNTY. HAVING A SOPHISTICATED NETWORK IN PLACE IS FINE, BUT NOW WE NEED TO EXPLORE HOW THIS WILL POTENTIALLY ENRICH OUR LIVES-IN OTHER WORDS, WHAT WILL WE BE ABLE TO PUT AT THE END OF THE NETWORK THAT MAKES INTERACTIVE MULTIMEDIA A REALITY? THE ANSWER LIES WITH THE TELEVISION AND\OR THE PERSONAL COMPUTER. LET'S EXPLORE THE COMPUTER POSSIBILITIES FIRST.

THE PC IN OFFICE ENVIRONMENTS IS A WELL KNOWN FACT TODAY; HOWEVER, HOME COMPUTING IS SUDDENLY THE FASTEST GROWING SEGMENT IN THE PC MARKET. LAST YEAR, AMERICAN CONSUMERS BOUGHT A RECORD 5.85 MILLION PERSONAL COMPUTERS. ONE OUT OF THREE HOUSEHOLDS HAS A PC. THE FOLLOWING FACTORS ARE RESPONSIBLE FOR THIS INCREASE: MORE PEOPLE ARE WORKING AT HOME, PRICES ARE FALLING, PC'S ARE EASIER TO SET UP, SHOPPING FOR A PC IS MORE CONVENIENT AND LESS INTIMIDATING, AND NEW SOFTWARE AND CD-ROMS ARE LURING CUSTOMERS. WILL THE PC BE YOUR ON-RAMP TO THE INFORMATION HIGHWAY? BET ON IT, SAY MANY TECHNOLOGY ANALYSTS. NO OTHER DIGITAL DEVICE OF COMPARABLE POWER IS LIKELY TO MAKE ITS WAY INTO TENS OF MILLIONS OF HOMES IN THIS DECADE-EVEN IF AMERICA'S CABLE-TV AND TELEPHONE GIANTS SPEND BILLIONS TRYING TO POPULARIZE THEIR OWN VERSIONS OF DIGITAL INTERACTIVE TV. (@5) NOTED TECHNOLOGY ANALYST MARC SCHULMAN STATES,

"THE PC WILL BE THE VIEW PORT. THE RATE OF TECHNOLOGY CHANGE IN PC'S IS MUCH FASTER THAN TV AND EVERYTHING CONNECTED WITH TV INVOLVES GOVERNMENT REGULATIONS, WHILE PC'S DON'T. ALREADY APPLE AND PACKARD BELL SELL COMPUTERS THAT DOUBLE AS TV'S."

THE PC WILL ALSO SOON MERGE WITH THE TELEPHONE. RICHARD BODMAN, CHIEF STRATEGIST AT AT&T STATES, "BY THE END OF THE DECADE IT WILL BE INCONCEIVABLE TO HAVE A PC THAT ISN'T ALSO A TELEPHONE." CALLERS WILL BE ABLE TO SHARE ON-SCREEN DATA AT WILL AND CONDUCT VIDEO CONVERSATIONS. ON-LINE SERVICES, OF WHICH PRODIGY, COMPU-SERVE, AND AMERICA ONLINE ARE THE MAJOR PLAYERS, CURRENTLY ALLOW THOSE WITH A MODEM EQUIPPED PC TO DIAL UP A WEALTH OF INFORMATION, INCLUDING NEWS AND FINANCIAL DATA.

THE MAJOR DRAWBACK FOR PC BASED INTERACTIVE MULTIMEDIA SEEMS TO BE THAT PEOPLE STILL FIND THE PC TOO HARD TO USE. A RECENT ROPER SURVEY FOR IBM FOUND THAT HALF OF ALL AMERICANS HAVE NO INTEREST IN PURCHASING A PC BECAUSE THEY FIND THEM TOO COMPLICATED. THE BIGGEST CHALLENGE FOR THE PC INDUSTRY IS TO FIND A WAY TO HIDE THE COMPUTER TECHNOLOGY FROM THE CONSUMER. ONE DOESN'T HAVE TO FULLY UNDERSTAND THE INTERNAL COMBUSTION ENGINE IN ORDER TO DRIVE A CAR-PC MANUFACTURERS ARE WORKING TO REACH THE POINT WHERE THE SAME CAN BE SAID USING PERSONAL COMPUTERS.

WHAT WILL TELEVISION'S ROLE BE IN THE INTERACTIVE MULTIMEDIA INFORMATION SUPERHIGHWAY OF TOMORROW? JOHN HENDRICKS, CEO OF DISCOVERY COMMUNICATIONS STATES, "I'M CONVINCED THAT 1994 IS THE

DAWNING OF THE THIRD REVOLUTION IN TV. IN MANY WAYS IT IS SIMILAR TO 1975, WHEN SATELLITE DELIVERED PROGRAMMING BEGAN TO VASTLY EXPAND THE CHOICES OF VIEWERS. WHAT WE'RE LOOKING AT NOW IS GIVING CONSUMERS THE ABILITY TO TAKE THE NEXT STEP AND CONTROL THE ENTERTAINMENT ENVIRONMENT IN THEIR HOME." (@8)

MANY OF THE EXAMPLES I HAVE CITED PREVIOUSLY SEEM FAR REMOVED FROM KOSCIUSKO COUNTY; HOWEVER, WE HAVE SOMETHING HAPPENING IN RICHMOND INDIANA THAT IS A FIRST IN THE NATION-RICHMOND WILL BE THE FIRST CITY IN THE US TO HAVE THE CAPABILITY OF RECEIVING 300 PLUS CHANNELS BY THE END OF 1994. THIS DOESN'T MEAN 300 DIFFERENT CHANNELS BUT 40 OR 50 CHANNELS AND DOZENS OF CHOICES OF PAY CHANNELS AND PAY-PER-VIEW MOVIES AND PROGRAMS. THIS IS A PART OF TCI'S NATIONAL DIGITAL TELEVISION CENTER AND WILL BE ROLLED OUT TO TCI'S 14 MILLION OTHER CUSTOMERS AS QUICKLY AS THE COMPUTERIZED CONVERTER BOXES CAN BE PRODUCED. (@9) THIS PROJECT SERVES TO ILLUSTRATE THAT BIG BUSINESS AND LARGE CITIES ARE NOT ALWAYS THE FIRST TO RECEIVE THE LATEST TECHNOLOGY. TIME WARNER, PARENT OF WARSAW'S WARNER CABLE TV, IS CURRENTLY TESTING WHAT IT REFERS TO AS ITS FULL SERVICE NETWORK WHICH PROVIDES SWITCHED, DIGITIZED, FIBER OPTIC SERVICES VERY SIMILAR TO THE TCI-RICHMOND PROJECT. (@10)

INTERACTIVE VIDEO IS BUILT UPON THREE ASSUMPTIONS: THAT WE WANT TO PROGRAM FOR OURSELVES AND NOT BE PASSIVE TV VIEWERS; WE ARE WILLING TO PAY EXTRA TO DO SO; AND IN RETURN FOR THIS CONVENIENCE WE WILL PAY AS LITTLE ATTENTION TO THE CHARGES AS WE DO OUR VIDEO

STORE BILLS. THE PROBLEM FACING INTERACTIVE VIDEO IS THAT THE GENERAL PUBLIC DOESN'T HAVE A CLUE ABOUT WHAT IT ALL MEANS. TO ASK CONSUMERS ABOUT A SERVICE THEY CAN'T COMPREHEND IS LIKE EXPECTING AN INFANT TO READ. THE AVERAGE FAMILY NOW PAYS A MONTHLY BILL OF ABOUT FIFTY DOLLARS FOR LOCAL AND LONG DISTANCE PHONE SERVICE AND TWENTY DOLLARS FOR BASIC CABLE TV. PAT CAMPBELL, VP\CORPORATE STRATEGY FOR AMERITECH, ESTIMATES THE AVERAGE BILL FOR TELEPHONE AND CABLE SERVICES WILL CLIMB TO ONE HUNDRED DOLLARS WITHIN FIVE YEARS. (@10) THE TOTAL TAB FOR INTERACTIVE TV WILL BE MORE AS EVERYTIME YOU USE A SERVICE SUCH AS ORDERING A MOVIE, PLAYING AN INTERACTIVE GAME, OR USING A SHOPPING SERVICE, IT WILL GENERATE AN ADDITIONAL CHARGE. THE ECONOMICS AND PRICING OF INTERACTIVE TV IS MURKY AT BEST-HOW DO YOU PRICE A SERVICE THAT IS YET TO BE DISTRIBUTED?

THE LAST PORTION OF INTERACTIVE MULTIMEDIA I WOULD LIKE TO ADDRESS ARE THE SOCIAL ASPECTS. AS ONE CAN DEDUCT FROM THE PREVIOUS SEGMENT ON PRICING, ONE THING IS FOR CERTAIN-THE FUTURE PROMISES MORE FOR THE HAVES THAN THE HAVE-NOTS. POORER AMERICANS WILL SIMPLY NOT BE ABLE TO AFFORD THE NEW TECHNOLOGIES AVAILABLE. THIS WOULD NOT BE SIGNIFICANT IF THE ONLY CONCERN WAS ENTERTAINMENT; HOWEVER, IT'S QUITE LIKELY THAT THERE WILL BE SOCIAL AND ECONOMIC SERVICES AVAILABLE VIA MULTIMEDIA THAT WILL BE DIFFICULT TO BE DERIVED ELSEWHERE. FORMER FCC CHAIRMAN AL SIKES STATES, "I THINK AS WE DEVELOP SERVICES THEY WILL BE SUBSIDIZED.

THEY WILL TAKE ON MORE OF A FOOD STAMP QUALITY." FUNDING WILL CERTAINLY BE ONE OF THE MAJOR ISSUES IF THIS HOLDS TRUE. THE REMAINING SOCIAL IMPLICATION CONCERNS THE EFFECT ON THE COMMUNITY ITSELF. THERE ARE TWO SCHOOLS OF THOUGHT HERE: ONE CONTENDS THAT THERE WILL BE MANY MORE OPPORTUNITIES FOR COMMUNICATION-THE OTHER FEARS THAT THERE WILL BE FEWER COMMON EXPERIENCES AS FEWER PEOPLE WILL BE WATCHING THE SAME THING AND MORE PEOPLE WILL SHUTTER THEMSELVES INDOORS IN FRONT OF THE TUBE WITH SO MANY CHOICES AVAILABLE. THE ONLY DATA TO DRAW FROM IS FROM MONTREAL, CANADA WHERE 220,000 SUBSCRIBERS CURRENTLY HAVE INTERACTIVE TV. THE AVERAGE CONSUMER SPENT 8.5 HOURS A WEEK USING THE SYSTEM-FOUR HOURS PLAYING VIDEO GAMES, THREE HOURS PLAYING INTERACTIVE PROGRAMS SUCH AS JEOPARDY, AND THE REMAINING TIME USING DATA SERVICES SUCH AS WEATHER REPORTS, HOROSCOPES, LOTTERY NUMBERS ETC.(@11)

TO CONCLUDE THIS PAPER, I HOPE TO HAVE DEMONSTRATED THE COMMUNICATION EVOLUTIONARY PROCESS WE ARE NOW A PART OF AND SHOWN HOW THESE CHANGES COULD EFFECT US IN KOSCIUSKO COUNTY. ONE THING IS CERTAIN, CHANGE IS ON THE HORIZON AND THERE WILL BE CHOICES FOR US TO MAKE AS A COMMUNITY AND AS INDIVIDUALS-THIS IS NOTHING NEW. WHETHER WE CHOOSE TO TRAVEL THE SUPERHIGHWAY AND TO WHAT EXTENT IS A PERSONAL CHOICE. MANY COMPANIES ARE INVESTING HUGE AMOUNTS OF DOLLARS THAT INTERACTIVE MULTIMEDIA WILL BE A BIG PART OF OUR FUTURE. THE ONLY REAL WAY TO TEST THE DEMAND IS BUILD THE HIGHWAY AND SEE WHAT RESULTS. THE ONLY CERTAINTY-THE BEST DESIGNED PRODUCT

AT THE LOWEST PRICE WILL WIN OUT.

AS A POSTSCRIPT, IT WOULD BE INTERESTING TO DO A FOLLOW-UP IN 4-6 YEARS TO SEE WHERE THE HIGHWAY HAS TAKEN US-CERTAINLY A WORTHWHILE PROJECT FOR SOME FUTURE KLA PARTICIPANT!

SOURCE REFERENCE

- (@1) The Future of Local Competition: The War of All Against All by Joseph Kraemer
- (@2) Cable Phone Link is a Promising Gamble: Wall Street Journal 5\18\93
- (@3) "Wanna Bet", Predictions for the Wireless Age: Wall Street Journal 2\11\94
- (@4) Washington Slows Speed on Information Highway: Wall Street Journal 4\8\94
- (@5) "Geodisic Network II: 1993 Report on Competition in the Telephone Industry" by Peter Huber. Wall Street Journal 8\19\93
- (@6) The Next Generation by Gautam Naik: Wall Street Journal 2\11\94
- (@7) "How PC's Will Take Over Your Home", Fortune Magazine 2\21\94
- (@8) "Big Changes in the Small Screen", Indianapolis Star 4\10\94
- (@9) "TCI Paves Way for 500 Channel TV", USA TODAY 4\7\94
- (@10) "The Magic Box", New Yorker Magazine 4\11\94
- (@11) "TV at Your Command", Indianapolis Star 4\11\94