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Before St. Louis Chapter, Missouri Society of CPAs, March 24,
1966**

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OF MEN AND MACHINES:
DO THE FIRST BECOME SECONDARY?

Robert M. Trueblood
St. Louis Chapter,
Missouri Society of CPAs
March 24, 1966

OUR LIVES AND OUR WORK ARE AN
ADMIXTURE OF MANY THINGS -- THOUGHT, PHYSICAL
PROCESSES, INVENTION, ENGINEERING WONDERS.
AND THE PROPORTION OF EACH OF THESE INGREDIENTS
IN THE AMALGAM OF THE WHOLE HAS CHANGED SIGNI-
FICANTLY EVEN IN THE RELATIVELY SHORT PERIOD
OF YOUR AND MY PROFESSIONAL EXPERIENCE.

TODAY, THERE ARE SOME WHO FEAR THAT
THE CHANGING NATURE OF SOCIETY, AND OUR PRO-
LIFERATING TECHNOLOGY, MAY WELL HAVE ADVERSE
EFFECTS UPON THE ACCOUNTING PROFESSION. IT IS
TRUE THAT CHANGE HAS ALREADY COME TO SOME OF OUR
TRADITIONAL WAYS OF DOING THINGS. BUT THE
FUTURE HOLDS UNTOLD OPPORTUNITIES FOR PRO-
FESSIONAL GROWTH, SOME OF WHICH COULD NOT BE

PROGNOSTICATED EVEN A DECADE AGO. IN ORDER TO TAKE ADVANTAGE OF THESE OPPORTUNITIES, HOWEVER, WE NEED THE CREATIVE THINKING AND THE THOUGHTFUL PLANNING OF EVERY MEMBER OF OUR PROFESSION.

NO ONE NEEDS TO BE TOLD THAT THIS IS THE AGE OF THE COMPUTER. NO ONE NEEDS TO BE TOLD IF ONLY BECAUSE EVERYONE SEEMS DETERMINED TO TELL EVERYONE ELSE THAT THIS IS THE AGE OF THE COMPUTER. THAT MESSAGE IS BEING DELIVERED WITH SUCH FREQUENCY THAT ONE BEGINS TO SUSPECT THAT THE COMPUTERS THEMSELVES ARE PROCLAIMING THEIR IMMINENT SUPREMACY OVER THE HUMAN SPECIES.

THE RATHER CHILLING FACT, INDEED, IS THAT COMPUTERS PRESENTLY DO, AND WILL CONTINUE TO, PLAY A CONSIDERABLE ROLE IN OUR SOCIETY.

IT IS NOT ONLY THE FANCIFUL WRITERS OF SCIENCE
FICTION WHO ENVISION THAT, WITHIN A FEW SHORT
YEARS, ELECTRONIC MACHINES WILL BE SUBSTITUTING
FOR THE HUMAN BRAIN IN MANY ASPECTS OF OUR LIVES.
COMPUTERS CAN PERFORM PRODIGIOUS AMOUNTS OF
INTELLECTUAL LABOR -- WITHOUT EVER TAKING A
COFFEE BREAK. THEY CAN WORK AROUND THE CLOCK --
AND NEVER DISTRACT MANAGEMENT WITH INQUIRIES ABOUT
FRINGE BENEFITS. THEY SELDOM COMMIT ERRORS --
THOUGH ALL OF US REJOICE IN THEIR ALMOST HUMAN
FRAILTY WHEN THEY SEND A 12 MILLION DOLLAR CHECK
TO A CUSTOMER WHO SHOULD HAVE RECEIVED A CREDIT
FOR 12 DOLLARS.

IT PROBABLY SHOULDN'T GO BEYOND THIS
ROOM, BUT I HAVE BEEN TOLD BY MY FRIENDS AT

CARNEGIE TECH THAT THESE WONDROUS MACHINES CAN
EVEN BE PROGRAMMED TO REPRODUCE THEMSELVES. I
HAVE NO REASON TO DOUBT THIS -- THOUGH I
SUSPECT THAT THEY DO NOT DERIVE MUCH ENJOYMENT
FROM THE PROCESS.

BUT WHILE COMPUTERS WILL BE A MAJOR
FACTOR IN OUR LIVES IN THE YEARS AHEAD, THEY
WILL NOT MAKE EITHER MODERN MAN OR MODERN
MANAGEMENT OBSOLETE. COMPUTERS SUPPLEMENT THE
SKILLS OF MAN; EXPAND THE HORIZONS OF HIS
KNOWLEDGE; ENDOW HIM WITH NEW POWER TO RE-
SOLVE OLD PROBLEMS, AND TO EXPLORE NEW ONES.
BUT COMPUTERS WILL NOT REPLACE THE HUMAN RACE --
WITH ALL OF ITS ABILITY TO TAKE WONDROUS LEAPS
OF IMAGINATION FROM THE KNOWN TO THE UNKNOWN,

WITH ALL ITS INFINITE VARIETY, WITH ALL ITS
FOLLY AND ITS WISDOM.

THE NEW MACHINES MAY WELL BE RE-
MARKABLE BUT MAN IS A MIRACLE, EVEN WHEN HIS
BEHAVIOR DISHONORS HIS HERITAGE.

IF WE ARE TO ACHIEVE OUR GOALS FOR
HUMANITY, WE WILL OBTAIN MUCH ASSISTANCE
FROM THE COMPUTER. BUT MOST OF THE WORK OF
THE WORLD MUST STILL BE DONE BY US. IT MUST
BE DONE BY US: ALONE AS MEN, AND TOGETHER
AS GROUPS OF PEOPLE.

YOU ARE ALL ACQUAINTED WITH THE
PRINCIPLE OF SYNERGY WHICH HOLDS THAT THE TOTAL
EFFECT OF A SYSTEM CAN EXCEED THAT OF THE
COMBINED EFFECTS OF ITS INDIVIDUAL COMPONENTS.

ILLUSTRATIONS OF THIS PRINCIPLE ABOUND IN
PHYSIOLOGY WITH THE ACTIONS OF MUSCLE GROUPS,
IN DRUGS, AND IN INDUSTRY. FOR EXAMPLE, I'M
TOLD THAT THE TENSILE STRENGTH OF CHROME
NICKEL STEEL IS TEN TIMES THE TENSILE STRENGTH
OF ITS WEAKEST CHEMICAL ELEMENT, AND SIX TIMES
THAT OF ITS STRONGEST. THIS PHENOMENON TENDS
TO ESTABLISH THE VALIDITY OF THE STATEMENT THAT
"THE WHOLE MAY BE GREATER THAN THE SUM OF ITS
PARTS."

AND THIS SAME PHENOMENON ALSO APPLIES
TO SOCIAL AND ECONOMIC SYSTEMS. SOCIAL GROUPS
DERIVE THEIR STRENGTH NOT ONLY FROM THE COMBINED
EFFORTS OF THEIR INDIVIDUAL MEMBERS, BUT ALSO
FROM THE CATALYTIC AND REINFORCING EFFECT WHICH
IS ACHIEVED WHEN A GROUP WORKS TOGETHER TOWARD

COMMON OBJECTIVES.

SO IT IS WITH OUR PROFESSIONAL ORGANIZATIONS. ACCOUNTANTS HAVE BEEN EXTREMELY FORTUNATE WITH THEIR SYSTEM OF VOLUNTARY MEMBERSHIP GROUPS, WHICH AT THE NATIONAL LEVEL NOW CONSIST OF SOME HALF DOZEN MAJOR ASSOCIATIONS CONCERNED EXCLUSIVELY WITH VARIOUS ASPECTS OF THE ACCOUNTING FUNCTION. AS CPAs, WE HAVE THE AMERICAN INSTITUTE WITH ITS 55,000 MEMBERS -- STRONGLY SUPPORTED BY 53 AUTONOMOUS STATE SOCIETIES -- WHICH IN TURN INCLUDE MORE THAN 200 CHAPTERS. WITHIN A QUITE LOOSE STRUCTURE, AND WITHOUT THE CONFINING CONSTRAINTS OF A RIGID ORGANIZATION, THE ACCOUNTING PROFESSION HAS MADE REMARKABLE PROGRESS, INDEED.

BUT A FAIRLY LARGE NUMBER OF OUR MEMBERS,
I FEAR, HAVE LITTLE IDEA OF THE CONTRIBUTIONS --
IN THE SENSE OF BOTH REAL AND OPPORTUNITY COSTS --
WHICH ARE MADE BY MANY OF THEIR PEERS IN ADVANCING
THE OBJECTIVES OF THE PROFESSION. I, THEREFORE,
WOULD LIKE TO PAY TRIBUTE TO THE THOUSANDS OF
DEDICATED MEMBERS WHO HAVE TRANSLATED YESTERDAY'S
AMBITIONS INTO PRESENT DAY ACCOMPLISHMENTS --
AND TO THOSE WHO ARE NOW IN THE PROCESS OF SEEING
THAT OUR PRESENT HOPES WILL BECOME TOMORROW'S
REALITIES.

IT'S VIRTUALLY IMPOSSIBLE TO GIVE ANY
REASONABLY ACCURATE ESTIMATE OF THE TIME THAT OUR
MEMBERS GIVE TO THEIR PROFESSIONAL ORGANIZATIONS,
BUT WE DO HAVE SOME INDICATIONS OF MAGNITUDE.
WITHIN THE AMERICAN INSTITUTE ITSELF

WE HAVE SOME 60 COMMITTEES, WHICH DEAL WITH ALMOST EVERY FACET OF OUR PROFESSIONAL LIFE -- THE IMPROVEMENT OF TECHNICAL AND ETHICAL STANDARDS, CONTINUING EDUCATION, DIRECT ASSISTANCE TO THE MEMBERSHIP, AND RELATIONS WITH OTHER GROUPS WHO HAVE AN INTEREST IN WHAT WE ARE DOING.

THESE COMMITTEES VARY, OF COURSE IN THEIR NATURE, THEIR SCOPE, AND THEIR FUNCTION. SOME ARE STANDING COMMITTEES UNDER THE BY-LAWS WHICH HAVE CERTAIN PERIODIC OR CONTINUING RESPONSIBILITIES; OTHER COMMITTEES ARE MORE OR LESS PERMANENT BECAUSE OF THE IMPORTANCE OF THEIR FUNCTIONS; A FEW COMMITTEES ARE "AD HOC" IN NATURE, APPOINTED TO DEAL WITH SPECIFIC, NON-RECURRING MATTERS.

SOME OF OUR WORKING GROUPS REQUIRE FREQUENT MEETINGS; MANY INVOLVE SUBSTANTIAL HOMEWORK; ONLY A FEW CAN PERFORM EFFECTIVELY BY CORRESPONDENCE. IN THE INSTITUTE ITSELF, THIS COMMITTEE EFFORT INVOLVES THE ACTIVITIES OF SOME 600 INDIVIDUALS -- EACH OF WHOM GENERALLY SERVES FOR THREE YEARS.

NOT UNTYPICAL IS THE BOARD OF EXAMINERS, WHERE A RECENT CHECK SHOWED THAT ITS AVERAGE MEMBER DEVOTED THE EQUIVALENT OF ONE WORKING MONTH PER YEAR TO INSTITUTE AFFAIRS. THE SAME CONTRIBUTION, PERHAPS EVEN MORE, IS INVOLVED IN OTHER ACTIVITIES SUCH AS THE ACCOUNTING PRINCIPLES BOARD, THE AUDITING PROCEDURES GROUP, AND THE PROFESSIONAL ETHICS COMMITTEE.

IN FACT, THE INSTITUTE'S CONTROLLER,
GEORGE TAYLOR, ONCE ESTIMATED THAT IF ALL OUR
COMMITTEE MEMBERS CHARGED REGULAR PER DIEM
FOR THEIR SERVICES, THE INSTITUTE WOULD "GO
BROKE" IN ABOUT THREE MONTHS.

EVEN SO, NONE OF THE ACTIVITY WHICH
I HAVE MENTIONED INCLUDES THE WORK OF OUR
MOST IMPORTANT GROUP -- OUR 250-MEMBER GOVERNING
COUNCIL WHICH IS RESPONSIBLE FOR BASIC POLICY
AND THE OVERALL FUNCTIONING OF THE INSTITUTE.

MUCH THE SAME PARTICIPATIVE SITUATION
EXISTS WITHIN THE STATE SOCIETIES, AND AT THE
CHAPTER LEVEL -- BUT MULTIPLIED IN MAGNITUDE
MANY, MANY TIMES. ON A NATIONWIDE SCALE, THE
CUMULATIVE EFFORT OF OUR INDIVIDUAL MEMBERS

REACHES ALMOST STAGGERING PROPORTIONS. I
WOULD GUESS, AND I THINK CONSERVATIVELY, THAT
THERE ARE MORE THAN 10,000 CPAs WHO ARE SERVING
THEIR PROFESSIONAL ORGANIZATIONS IN SOME
OFFICIAL CAPACITY, SOMEWHERE.

ONE MIGHT LOGICALLY ASK IF ALL OF
THIS EFFORT IS REALLY NECESSARY TO CONDUCT THE
AFFAIRS OF THE PROFESSION -- AND WHETHER IT IS
AN EFFICIENT MECHANISM. ON MORE THAN ONE
OCCASION I HAVE HEARD THE MOURNFUL -- BUT
PRIDEFUL -- PLAINT FROM MEMBERS THAT THEY HAVE
BEEN SPENDING SO MUCH TIME ON INSTITUTE AFFAIRS,
THAT THEIR PRACTICE IS INTERFERING WITH THEIR
PROFESSIONAL ACTIVITIES.

I CONTEND THAT THIS KIND OF PARTICIPATION IS ESSENTIAL -- A NECESSARY OBLIGATION OF THE PROFESSIONAL MAN -- AND THAT IN SOME WAYS, OUR PARTICIPATIVE HABITS SHOULD BE INCREASED, RATHER THAN DECREASED.

OUR ORGANIZATIONS ARE MEMBERSHIP ORGANIZATIONS, AND IN KEEPING WITH OUR DEMOCRATIC HERITAGE, THE STANDARDS WHICH GOVERN OUR PROFESSIONAL PRACTICES SHOULD BE DEVELOPED BY THOSE WHO ARE EXPECTED TO COMPLY WITH THEM. TO DO THIS JOB WE NEED THE SKILLS, THE EXPERIENCE, AND THE INSIGHTS OF THOSE WHO ARE PART OF EVERYDAY PROFESSIONAL PRACTICE. BUT WE MUST ALSO COMBINE THESE PARTICIPATIVE FORCES WITH WHAT WE CAN LEARN FROM APPROPRIATE

SPECIALISTS, AND FROM OTHER DISCIPLINES.

AS THE GROWTH OF OUR PROFESSION HAS ACCELERATED FROM A MERE HANDFUL IN 1900 TO ALMOST 90,000 TODAY, IT HAS BEEN NECESSARY TO MOVE FURTHER AWAY FROM THE "TOWN MEETING" CONCEPT -- TO A SYSTEM OF REPRESENTATION AND DELEGATION. ACCORDINGLY, WE MUST ASK RELATIVELY SMALL GROUPS OF OUR COLLEAGUES TO DEAL INTENSIVELY WITH PARTICULAR ASPECTS OF A WHOLE SPECTRUM OF LARGER PROBLEMS -- AND THUS TO WORK FOR THE PROFESSION AS A WHOLE.

WE HAVE "HIRED" STAFFS TO HANDLE MANY OF OUR DAY-TO-DAY AFFAIRS: TO STUDY AND ADVISE ON PROFESSIONAL MATTERS; TO ASSIST COMMITTEE MEMBERS AND GOVERNING BODIES; TO COORDINATE

OUR ACTIVITIES; AND TO PROVIDE THE ELEMENT OF CONTINUITY WHICH IS SO ESSENTIAL TO ANY ORGANIZATIONAL STRUCTURE. AT THE AMERICAN INSTITUTE OFFICES IN NEW YORK WE NOW HAVE 200 FULL-TIME EMPLOYEES. THEY INCLUDE CPAs WHO ASSIST ON TECHNICAL MATTERS, AND SPECIALISTS KNOWLEDGEABLE IN A VARIETY OF AREAS WHICH AFFECT THE PROFESSION. ABOUT 45 STATES HAVE SOME FORM OF PAID STAFF, RANGING FROM PART-TIME ADMINISTRATIVE ASSISTANTS TO HIGHLY TALENTED GROUPS OF SUBSTANTIAL SIZE. OUR PAID STAFFS THROUGHOUT THE COUNTRY HAVE MADE INVALUABLE CONTRIBUTIONS TO THE PROFESSION, AND WE COULD NOT OPERATE WITHOUT THEM.

IN SHORT, OUR PROFESSIONAL ORGANIZATIONS HAVE GROWN UP TRYING TO MAINTAIN THAT DELICATE BALANCE BETWEEN PERSONAL PARTICIPATION,

AND EFFECTIVE ACTION; BETWEEN DEMOCRATIC PRINCIPLES, AND EFFICIENT OPERATION. WE HAVEN'T ALWAYS BEEN SUCCESSFUL, BUT ON THE WHOLE I THINK WE HAVE DONE VERY WELL. WHETHER OUR PRESENT SET-UP IS THE BEST THAT CAN BE DEvised, I DON'T KNOW. CERTAINLY IT HAS SOME FAULTS AND SOME LACKS.

ON ANY IMPORTANT PROFESSIONAL ISSUE, THERE ARE APT TO BE VARYING VIEWS -- BUT THESE VARYING VIEWS MUST BE RESOLVED IN ORDER TO ACHIEVE AN EFFECTIVE SOLUTION.

ONE WAY TO ACCOMPLISH SOLUTION OF PROBLEMS IS, OF COURSE, TO RELY ON THE EVOLUTIONARY PROCESS -- WITH ITS TRIAL AND ERROR METHOD WHICH CERTAINLY WORKS, IN THE LONG RUN. I QUESTION, HOWEVER, WHETHER THE ACCOUNTING

PROFESSION WILL BE GIVEN AN OPPORTUNITY TO
WORK BY TRIAL AND ERROR, FOR VERY LONG. UN-
LIKE LAW AND MEDICINE -- WHICH DEVELOPED OVER
HUNDREDS OF YEARS -- OUR PROFESSION IS BASICALLY
A PRODUCT OF THIS CENTURY.

OUR BIRTH, OUR CHILDHOOD, OUR
ADOLESCENCE, AND OUR MATURITY HAVE BEEN COM-
PRESSED INTO A TIME SPAN WHICH IS LESS THAN
THE LIFE EXPECTANCY OF A HUMAN IN AMERICA.

THE PRESENT ACCELERATING RATE OF
CHANGE IS SO RAPID THAT NEW PROBLEMS PYRAMID
ATOP THE OLDER UNRESOLVED ONES, SO FAST THAT
IT MAKES EVEN THE OLDER PROBLEMS MORE DIFFICULT
TO RESOLVE. ONE OF OUR VERY REAL DIFFICULTIES
IS TO REMAIN RESPONSIVE TO THE WILL OF AN
ENLIGHTENED MEMBERSHIP, AND TO MAKE EFFECTIVE

AND ACCEPTABLE DECISIONS WITHIN A REASONABLE
TIME PERIOD.

AS IN MOST PROBLEM SITUATIONS,
COMMUNICATIONS IS A LARGE PIECE OF THE WHOLE.
WE MUST IMPROVE THE PROCESSES BY WHICH OUR
MEMBERS CAN MAKE THEIR VIEWS KNOWN. WE MUST
COMMUNICATE DECISIONS IN PERSUASIVE TERMS THAT
WILL DEMONSTRATE CLEARLY THAT SUGGESTED
SOLUTIONS ARE LOGICAL AND WELL-REASONED.
PERHAPS SOME CHANGES ARE DESIRABLE IN TERMS OF
INCREASED DELEGATION BY THE MEMBERSHIP IN THE
AUTHORITY GRANTED THEIR ELECTED REPRESENTATIVES
TO ACT FOR THEM. OR, POSSIBLY SOME REARRANGEMENT
OF EXISTING RESPONSIBILITIES MAY BE INDICATED.
THESE ARE PROBLEMS WHICH WE ARE CURRENTLY
STUDYING.

NEVER TO BE FORGOTTEN, HOWEVER, IS THE OVERRIDING CONSIDERATION THAT THE AMERICAN INSTITUTE OF CPAs, LIKE LINCOLN'S CONCEPT OF GOVERNMENT, IS "OF, BY, AND FOR" THE MEMBERS. AN ORGANIZATIONAL FRAMEWORK CAN BE BUILT AND CAN BE IMPROVED UPON, FORUMS CAN BE PROVIDED, AND COMMITTEES CAN BE FORMED TO STUDY AND ACT UPON PARTICULAR MATTERS. BUT, IN THE FINAL ANALYSIS A TRULY PROFESSIONAL MAN CAN NEVER DELEGATE HIS CONCERN FOR, AND HIS INTEREST IN, ALL MATTERS AFFECTING THE PROFESSION. OUR INDIVIDUAL MEMBER CAN'T BE AN EXPERT IN EVERYTHING, BUT HE CAN KEEP WELL-INFORMED; HE CAN EVALUATE THE VIEWS OF HIS COLLEAGUES; AND HE CAN MAKE HIS OWN ATTITUDES KNOWN.

IF EACH OF US ASSUMES THIS OBLIGATION THERE
ARE VERY FEW PROBLEMS THAT CANNOT BE RESOLVED
BY REASONABLE, ENLIGHTENED MEN -- WORKING
TOGETHER FOR THEIR MUTUAL ADVANTAGE AND FOR
THE PROFESSION AS A WHOLE.

THE LEADERSHIP POSTURE OF OUR
PROFESSION IS THEREFORE A DIRECT FUNCTION OF
THE LEADERSHIP QUALITIES OF OUR INDIVIDUAL
MEMBERS -- ALL WORKING TOGETHER IN A PARTICI-
PATIVE ENVIRONMENT OF GOODWILL, AND COMMON
GOALS. THIS IS WHY THE INSTITUTE NEEDS AND
REQUIRES THE CREATIVE THINKING AND THOUGHTFUL
PLANNING OF YOU AND OF ME, AND OF EVERY MEMBER
OF THE PROFESSION.

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