

NOTES : ©1978 TWO TEACHERS IN EVERY CLASSROOM DOCUMENT (TTEC)

NOTE #1 Repetitive audio/visual re-enforcement of data: Based on the precept, that when you repeat, see something many times, remembering/ learning/ retentivity, **IS** enhanced/better retained, by the brain !

Rabbi Avigdor Miller (1971), stated in his book, Torah Nation, “**repetition is important** since it makes a lasting impression on the mind. It is like the cycles of nature, which constantly repeat”.

In **1975**, I attended the **RCA School** (in Manhattan, NYC) for teaching the programming of computers. There were a number of tests which were administered, before enrollment would be accepted. I easily passed all, .. except . Physics.

Since I did exceedingly well on all other tests, the authorities gave me a book on basic physics, with approximately **330 pages**. A new test would be administered , and I had to pass, before they would allow me to take the course.

On studying this book, I wrote all the main important information, I deemed important and thereby reduced the **330 pages** to a document of some **30 pages**.

I then studied those pages approx **10 times**. I then retook a new physics test and passed with ease. In fact they told me, that I attained the highest mark in Physics, ever achieved in their school ! This effort, remained in my mind, as an important part of teaching, and/or learning **AND** retaining new information.

Earl Avraham David, author of “Code of the Heart” (2003), wrote that “Gematria taught me the importance of constant review and repetition in order to remember”.

NOTE #2 Electron Gun Design: My patent covering the **2,000 horizontal line** -capability versus the Japanese version **1,080 line** (HDTV). The United States still normally applies a **525** horizontal-line system, (technically, **262½** lines, shown TWICE), since the 1940's]), via a method called “**inter-laced**” scanning.

The first time the picture is scanned (one frame), for transmittal, all uneven lines are scanned, (**Lines 1... 3... 5... 7 etc.**), then even number lines are scanned, (**lines Number 2... 4...6...8 ...etc.**), **30** times a second. Each frame is repeated (therefore sixty (**60**) frames are displayed, to bring the completed picture in **synchronization**, with

60 Cycle (Hertz) Alternating Current (AC). Computers, for technical reasons, work better with “progressive” screening (scanning lines in order, **lines 1... 2... 3... 4... 5... etc.)** .

Because of the ***persistence** of the phosphor (retaining the brightness of the projected beam on the phosphor), plus the inability of the eye and brain, to see such rapid changes, it appears that a complete picture is seen.

The transition for my producing the **2,000+ line** out of the **525 Line** system (which was used/employed, since **1949**), was achieved by making the aperture (hole), in **Grid 1 (G1)**, in the Picture Tube (**CRT**), Electron Gun, half the diameter of the normal one, and is, as follows :

Halving the diameter of the **G1** aperture, invokes the use, of the “**double-quadruple-principle**”, (when you double something, the resultant is four (**4**) times as much). In this case, the **INVERSE** of the ***double-quadruple *** principal, which means a smaller diameter, (circular), electron beam, is emitted thru **G1**, (which controls the stream of electrons), varying according to the signal input, to the Electron Gun, which carries the broadcast video information.

The electron stream is now (**4**) times smaller than the normal. Then special electronic circuits are now employed, to increase the horizontal line projection, on which information is carried and which is then deposited on the phosphor of the TV Tube. The **Japanese HDTV** depends solely on circuitry, and it **really works great !**

*** Double-quadruple principal ***. For example: a **1” pipe** can pass through **100** gallons of water per minute (**GPM**). Doubling the diameter of the pipe, as many would suspect, does **NOT** pass **200** gallons of water per minute ...but , in reality passes **400** gallons of water. The same principle applies to **WIND GENERATORS** (wind-mills). A **15** Mile per hour wind may generate **100** Watts of electricity, but a **30** MPH wind will generate **400** Watts of electricity, according to the double-quadruple principal

The black and white picture tubes (**CRT**) use a phosphor-coating designated as “ **P4** ”. ***[“ P ”]** numbers, represent the persistence and color of the phosphors, coating the inside front picture, (viewing area), of the CRT. Color Tubes use “ **P31**”phosphors (**Red, Blue & Green**)

***“ Persistence ”** is a term describing how long the phosphor remains lit up, (Illuminated), after being struck by a pin-point, diameter, circular, stream of electrons. Example: In Radar Tubes we want the phosphor to remain lit for longer than for a regular T.V. Screen. For a fast-playing game, we would like the phosphor to be lit, much less time (also called “**decay**” time).

The more electrons in the stream, the brighter the phosphor glows. This produces (in a Black & White CRT) ALL shades between White and Black. In each square inch of phosphor in the picture tube, there are **1024 by 768** “pixels”, (a pixel is a shortened term for picture elements).

Therefore there are some **786,432** picture elements (pixels), per sq. inch, which may be impacted by the circular electron stream. Therefore the smaller the diameter of the Electron stream, then, the GREATER amount of pixels may be displayed, (breaking the picture into more parts), thereby producing a more life-like picture (**finer detail**).

The Japanese **HDTV** employs a **1080 line** system, (approximately double the amount of horizontal lines, than the current (**circa 2007**), **525 line** U.S. system). By having more horizontal lines, with which to display information, this then, produces a Four (**4**) time BETTER (more life-like picture), than the **525-line** system, as dictated by the “Double-quadruple” principle .

The **Special Purpose Tube**, I constructed, in the “Fifties”, used a “P11” phosphor [quicker decay time, (***persistence**), than [P 4], one-color, Black & White phosphor. It also had a green-appearing picture ! This phosphor, (by trial and error), turned out to be the best, for filming, (movie film) data, presented from a picture tube..

The Electron Beam was $\frac{1}{2}$ the diameter of normal CRT's, (**part of my patent**), then therefore was able to present a (**4**) time better picture than **HDTV**, (**without added equipment**). It was Sixteen times better than the U.S. 525-line system). That was exactly what the medical people were seeking. It was awesome !

NOTE #3 A copy of VARIOUS Pages, (dealing with the Educational part of the dated original, TV Plant Document), for the **DOMINICAN REPUBLIC**, included herein !

In the **2nd** paragraph herein, we have alluded briefly to intentional public education via television. In any developing country, the education of teachers competent enough to impart the knowledge to its youth, is necessary to upgrade their own standard of living, as well as assisting the nation in dramatically increasing the **GNP**, is always of the highest priority.

It is hereby suggested, that with the assistance of the **Dominican Republic Government**, the following method of education is **NOT** only desirable but represents the most advanced system of education in the entire world today – **second to none**.

As few as **5 or 6** of the most effective teachers in the **Dominican Republic**, will be assisted by in-class assistants (**Adjunct Teachers**. The installation of TV sets in every single class room in every school in the nation, and the use of the educational or a government sponsored TV

station, between the hours of **9 A.M. to 3 P.M.** could do the job. Each **Master Teacher**, at the TV studio, may effectively instruct as many as **600,000** students simultaneously, along-with each classroom (**Adjunct Teacher**), whose sole purpose is to be an assistant to the TV **[MT]** instructor.

The **7th and 8th** graders may receive instruction during afternoon hours. The following television-assisted education might be structured during those hours daily with a change of subject, determined by competent **Dominican Republic educators** .

During hours when TV-assist is not provided, normal school activities, under the direct supervision technique may be resumed, including review of televised instruction, preparation for the next TV assisted instruction period, testing for effectiveness of TV-assisted instruction, study periods, rest periods, arts and crafts, recreation, etc.

Assuming proof of the validity and effectiveness of this revolutionary approach to education, it might be desirable to broadcast TV-assisted instruction via different channels simultaneously, in order to spend - more time on subjects deemed requisite.

Hopefully, at this point, people responsible for the education of the Dominican Republic youth will decide upon the curricula best suited to properly educate the **Dominican Republic** grade schoolers.... Short-term, achievable attributes, of such system would be as follows:

1) All persons using the system will tend to speak a common language thereby **minimizing regionalism (dialects)**, usage.

2) Inexperienced, young, or new teachers will have the benefit of working with the best teachers in the nation, effectively becoming upgraded themselves and thereby becoming more effective teachers.

3) The assurance that the children are being taught the most **up-to-date knowledge, uniformly, class by class, all at the same instant(s)**..

4) Ready dissemination of all vital knowledge relative to **the Dominican Republic**, within hours, because of the simultaneous link-up of all schools in all provinces thereby uniting the country, as no other country in the history of mankind.

5) **Doubling the literacy rate in a single generation.**

6) Leading the world in educational techniques, via this revolutionary new concept, with continued experimentation into specific areas during normal school hours when TV assist is not normally in use.

7) Expand the curricula of existing college facilities, with emphasis on diverse professional categories such as engineering, doctors, lawyers, accountants, scientists, business administrators, etc., de-emphasizing the obsoleted need for so many teachers (**quality....opposed to quantity**).

Further, by making entrance requirements to the teachers' colleges more stringent, the "cream of the crop" of the potential teacher applicants, would thereby be effectuated. An added incentive to those fortunate selectees, would be the possibility of becoming one of the few **MASTER TEACHERS** ...obviously a prestigious and important position.

Carmine Cifaldi 3/11/1978

NOTE # 4

Provide **15** or **20** best qualified Teachers "**Master Teachers**" (MT). The amount of teachers (initially trained) would refer to a "start-up" plan. Later, in the teaching of **TTEC**, repetitive viewings of extremely successful lessons, plus attrition rates of **MT's** will cut down on the number of new **MT's** necessary to be **selected or trained.**, each year.

This will assure, that only the "**Cream of the Crop**", **best of the best**, Teachers will be used, in the future.

Example: Assume all LIKE-GRADES, from **2nd** to **8th**, each like-class, tied together. That calls for a total of **7 MT's** per lesson, (dis-regarding the presence of the in-class teachers), for each hour of instruction.

Each MT, whenever possible, would be vetted-in/teach 1 major subject. Factor in 1 hour for lunch, 1 hour Physical Education, 1 hour study/rest, (curriculum as directed by the responsible Educational Authorities).

MTs, as experts would teach multiple different grades every day. During the day, in designated times, when they are not teaching, they may mark papers and/or prepare the next session's lesson, according to State-approved curricula.

NOTE # 5 Provide in-house Studio Capability. Studio must have at least **(7)** different rooms/compartments, with the TV Camera Recorders and all other related equipment, so all **MTs** can teach, simultaneously, their composite class(es), (alongwith the **Adjunct Teachers**, in each individual class).

The students, charged with manning the **in-class recording** cameras in every class will spend **(1)** week at a time, and be on a rotating basis. Therefore, all

students will have at least **(1)** week's worth of time, (per semester), in doing so. Those students participating in the **T.V. studio**, under the guidance, of a Teaching Instructor, will receive **"Hands-on" training** in operating a miniature T.V. Studio. See Amy Rosen verbatim article **11-8-06**, in the main document.

Every day, one student, in each individual class, will videotape that day's lesson. **EVERY** student **MUST** take a turn, on a rotating basis, to record the day's lesson. Said live video-taping will be accessible to the **Master Control Room**, so that the **MT...** orperson(s) operating the controls, may have the power to query any single person called upon, to do so.

The **Adjunct Teacher** will have access to a button connected to the **Master Control Room**, with means for the Control room, to time receipt of activation, (down to **1,000ths** of a second). This would be to see which class (individual student), gets to answer the question, being posed by the **MT**, or the controlling individual, in the Master Control Room !

At least **(4)** students, (again on a weekly rotating basis), will be assigned to copying/reproducing tapes, which will be collected from the students daily. Then, adding the day's videotaped lesson, they will re-deliver them to the students, for their daily home-study.

At the end of each week, (the **last lesson**), the finished, completed **(5) day** session, will be given, permanently, to each student, to create/build -up a library, in a School and/or any other place directed by the authorities, for future student/public study/in assisting in the education of other parties).

For additional **"Hands On"** experience, **(3rd)** and **(4th)** year High School students, may opt to compress the information, and store it on a CD/DVD/other medium, so as to put all weekly VCR/DVD copies of one subject/one semester, **(17) to (20) weeks** , on One **(1)**VCR tape/single disc.

By Providing in-house Studio Capability, this **"Hands-On"** operation, would be similar to that, of "Vocational Schools", as practiced in the **1930/1940** era. Except, that it will be concurrent with, but not in lieu of, modern-day Educational practices.

NOTE: As experience dictates, student **"Hands On"** practices, may be modified/amended/changed. **SEE Notes 18 ... 20 ... and 31.... herein.**

NOTE # 6 Combining of classes: By the combining of like-classes, in **ALL** schools of the system, such guarantees that students being schooled in less affluent areas, receive the same top quality teacher (**MT**), as the students of the top-rated schools (of the past)!

Since students may see/hear students from all different schools, reacting to/answering proposed questions, from the **MT**/controlling authority, there will be an impetus, to portray one's own school, (one's City/ State/Country ?), as the best/smartest. **(That is the American way)!**

Bid **goodbye**, to **all claims of discrimination**, lack of top-quality teachers, poor curricula, etc., as adequately explained in the body of the TTEC document. Special education programs for adults (generally foreign-born adults), or American-born illiterate adults) may be extremely reducedor even..... phased out !

This would lessen taxes/freeing up money, to further TTEC educational upgrades, as developed ! **AGAIN WIN... WINWIN !**

Increasing of Class size, produces diametrically-opposed results (favorable) to the decreasing of class size, as is currently being espoused. Those people making excuses for achieving poor results of educating student (re test results), will now be stifled. The real culprit, is the **inadequacy** of the **teaching system**, existent (**circa 2000's**) !

Not only does larger class-size ease the continual pressure of building new schools, (a natural, unstoppable occurrence), but the combining of classes, automatically **reduces** the **cost per student ratio**, to educate the masses (more bang per buck), not counting the benefits of the belated education of adults, with all the attendant benefits to them-selves, the State and the U.S. Government !

NOTE # 7 Monetary savings, achieved by enlarging class size, with the passing of years, gets ... more ...and more important, as oil reserves forever dwindle, cost of living inexorably increases, prices of real estate continues to escalate and the cost of **building new schools becomes prohibitive**.

NOTE # 8 The Benefit of TTEC to parents. **Facing the facts**, there will always be a percentage of Parents/guardians, whom for one reason or another, do not participate in the education of their children. They might also have no regard for themselves, to be better educated.

Then, we have the parents who **DO** recognize the benefits of becoming educated themselves, and therefore, at their leisure, avail themselves, in their own home, the tapes brought home, and/or creating a library at home for **yet-to-come siblings !**

Others, under the guise of assisting the children/students, will themselves become more learned, at no extra cost, to the School System/State/ Federal Government !

Interested adults, as well as foreign-born, without children/students of their own, may borrow tapes from relatives, friends or a Public Library.

NOTE: **More and more States are allocating resources**, in an effort to **educate, interested adults !**

NOTE #9 All Students of all like-grades, receive the **same lesson**, at the **same time**, by the **same teacher**. As new information is acquired, or new facts/ideas are postulated, the appropriate grade level video-lesson, may be edited/amended, to reflect the change(s) in MONTHS, **as opposed to books being updated**, every **3 to 4** years (at greater and greater expense/waste). A **WIN/WIN/WIN** situation.

Editing could be achieved, by excising any particular part and substituting a new, more demonstrative piece, of information. In the alternative, any particularly effective teaching sessions, verbatim, may be retained for use, in the following term(s).

Editing will ALSO give the Students (trainees), training in another very important aspect of Television and Movie work. A specially trained/designated teacher(s) should be appointed, in each interconnected system. However, **superior teaching lessons**, may be substituted/used , from **ANY State-approved source !**

This assures, that Students would have the background of what the different facets are, of such high-paying positions/vocation. All in all, successfully operating the equipment, is not really that technical. **BUT**, you do need the opportunity/ chance, to learn !

While businesses may NOT want to hire untrained people, it **IS** the job of the Educational System to accomplish this, early in life, **(THE EARLIER THE BETTER)!**

NOTE #10 The **Master Teacher** will be one of proven educational prowess. As noted in the Main TTEC document, more and more, different States are committed to training/selecting/retaining/hiring of the brightest teachers possible, to teach ... **THEIR ... students !**

The public has got it right. **Poor teaching** is indeed PART of the **problem**. But we **still hear** , a chorus of “We need **smaller** classes”; “we need **more newer** schools”; “we need **more** money, **BUT cut our taxes**”; “get the money from the rich”; ETC.

The **TRUTH** is:... **IT IS THE SYSTEM THAT NEEDS FIXING/REPLACING!** (as indicated, and to be remedied by the use of TTEC)!

NOTE # 11 TTEC will allow multi-way communication(s), similar to a conference call today. It will also include means to allow the controller of the system, in a **“General Assembly Mode”**, to select one class, out of all the classes tied together, (thereby any individual student), to answer a question posed by the controller.

In the normal “like-classes” teaching mode, the **Master Teacher**, if desired, will have that power, also. The controller of the system, will have over-ride control, at all times .

NOTE #12 The TTEC System is **unsurpassed** in **providing security**, for Students, Teachers **and** property. Each school in the system will have a **“Security Room”**, from which all entrances/exits of the school may be observed, with continued video/audio observation, continually tape recorded.

Said tapes must be changed every week, because repeatedly re-recording, degrades the clarity of the finished product. Tapes should be stored/kept for at least **30 days!**

The TTEC system is **unsurpassed** in **providing security**, for the **Adjunct Teacher**, in that he/she will have means to relay class proceedings, to Central Control, or a **Panic Button** to Security, or **Police Headquarters**, at his/her discretion. State-of-the-Art will now allow **“wireless access”** to that excellent safety feature.

For after-school hours, **property** can be **safe-guarded** by the video/audio system, which also has darkness-viewing capability, as well as taping means(**24/7/365**), **EXTERNALLY**, as well as internally.

This may likewise be monitored, from the Security Room and/or the Controller System. The Fire Department, also included in the system, would know **EXACTLY where** any **fire-alarm** was **triggered from !**

Because Police Stations are part of the system, this property **night-watch system**, may also be received/observed by the police desk. This information should be made known to the public, so that, that alone, would discourage other attempts at vandalism, because it will be monitored by, and responded by, the local Police Station.

An important part of this system is that when alerted, the police would know how many vandals are involved, have their description/ pictures (on tape), and their approximate location in the building, as well as the entry point, of the incursion. **See next paragraph.**

NOTE: On January 28, 2007, a for-profit company, advertised the benefits of **THEIR** equipment, stored in buildings. It could provide real-time information, about

intrusions by robbers/vandals, etc., as well as indicate the source and location of fires. They may be accessed by their company truck, from outside the building, picking up images being generated IN the building.

The Advertisement goes on to say, that when a fire is indicated, it can be targeted directly at the source. The fire Department would be notified and could save minutes in arriving at the fire. Further the ad says , it may save **2 or 3** minutes, which “could mean the difference between life, brain dead or death, of the people involved”.

This Advertisement, in fact, backs up the claims made by the TTEC System, which would operate **MORE effectively** and **WITHOUT FURTHER COSTS**. Undoubtedly, their equipment, and monitoring same, would incur EXTRA recurring costs, to the SCHOOL system budget, **(EVERY YEAR)**, from then on,

Author’s Note: It would be good for businesses and other buildings which are **NOT** part of the TTEC System, which would be included as “cost of business”.

NOTE # 13A The Dominican **1978** proposal cited that National Security would be greatly advanced.. As all schools will be wired together, and in the General Assembly Mode, impending inclement weather (such as hurricanes, tornado warnings, etc.), will be effected.

Any other event which would require immediate mass-communication/alert, could advise the children to inform their families, which would improve survivability/injury-reduction capability, for the general population.

Not mentioned in the **1978** proposal, but as a natural outgrowth of the TTEC System, many Governmental buildings could, and should, be made part of the School System network (as suggested and done in the Paterson, New Jersey Fiber-Optic line network).

NOTE #13 B Notice of, and reaction to, disasters, and medical emergencies, for all sections of the country, especially those, in remote regions, would assure early action, to remedy same and/or provide assistance.

NOTE # 14A Some Colleges/Universities offer Lectures, for a fee, for all parties interested, in the person of note, and/or the subject of the lecture. This wonderful ability is inherent in the **TTEC** System. The person giving the lecture may or may not be a regular part, of that institution’s faculty.

NOTE 14 B The person, paying to receive that lecture, also, may or may not be, a student of the College or University, **(per se)**. Basically, the Institution would offer the lectures to anyone, who pays the fee.

NOTE 14 C In the **TTEC** system, (no student, per se), refers to certain professors/teachers, in higher-level educational institutions, who might desire to hear the lecture themselves, for any of myriad reasons, such as improving/updating their OWN grasp, of the subject being offered.

NOTE 14 D Some Colleges/Universities... Many educators themselves/other scientists, would be happy to participate in, a (2) or (3) hour lecture which was to be given by **STEPHAN HAWKING**, (probably the greatest living theoretical physicist, alive today 2006).

NOTE 14 E How many thousands of people would pay One Hundred Dollars (**\$100.00**), for the privilege, of viewing the experts? The TTEC system, being hooked up to the Internet, would have the ability, (much like Cable's Video-On-Demand), to broadcast/be received by anyone, world-wide, (if desired).

Who would benefit from such a fantastic event(s)?

A-1. The Institution offering the event, would have an **ADDITIONAL** source of income, from their percentage of the income, (**NOT** from their students), derived from the lecture. [Collegiate education is already too expensive for the poor]. The institution will also be proud, of the prestige, that would naturally ensue, from such event(s).

A-2. The speakers themselves, will be tremendously, financially compensated, so that **THEY** may afford to continue with studies of their own choice, and/or generally relieve themselves of financial worries!

A-3 **Hawking's lecture**, may be taped at home, and be **repeated many, many times**, for the learner's edification. One of the important cornerstones of the **TTEC** concept, (shared by many learned people), is that **REPETITION**, **reinforces learning** AND **RETENTION**, of any **data recorded/offered/studied**.

A-4 **VERY IMPORTANTLY** Another un-thought of/unheard of benefit, is in **NOT** having to take notes, while Hawking is speaking. This also allows a person's mind, to be more receptive, thus being able to concentrate fully/more effectively, on what **Hawking** is teaching. On replaying the tape record, notes may **THEN** be taken, if still desired, which process in itself, **FURTHER** re-enforces retentivity of the data proffered. .

A-5 The teachers responsible for, **TEACHING** our children, are themselves upgraded/reinforced, in their knowledge, of that subject. They will become more effective teachers.,(as promised in the original 1978 Dominican Republic proposal).

A-6 As the populace is increasingly enlightened/educated, the general well being of the City/State/Nation, will likewise be benefited, in more ways, than this author could imagine. Further refinement of the **TTEC**, is **inevitable!**

A-7 Some Colleges/Universities Last, but not least, the **people** being a **part of**, such a **privileged lecture**, can be secure in their knowledge, that they are being tutored by the “GREATS” of world-wide teachers, (**AND of the future**)!

NOTE # 15 TTEC assists in the **assimilation of foreign-born, non English-speaking inhabitants of the U.S.** The greater majority of these people are busy laboring to enjoy the fruits of our Democracy, and the rearing of off-spring, that they do not have time left to themselves, their families, to attend facilities away from home.

NOTE # 16 All Schools, in all States may be tied together. Each School system, in the whole State, may be electronically tied together. Eventually, all Systems in all States, may likewise, in turn, be tied together, [for certain functions], just as when the Internet was first formed, (which proved that such a System was advantageous to the sharing of knowledge).

In that case, the **TTEC** System, would then assure that **ALL** children/students are getting the same top-quality education. This would be at a reasonable cost to Governments, only a fraction of 2006 costs. This **“TTEC SUPER-INTERNET” educational system**, would still retain **MULTIPLE-WAY**, video/audio/storage, capability(ies), **AS WELL AS FREE** (wireless, “**WI-FI**” capability).

Time zones across the United States, would have to be factored in, so as to effectively reach, the maximum, (if not the optimum), amount of pupils simultaneously, much like that, when the President is giving a speech) !

The author suggests that some “educationally-challenged” students could also be **IMMENSELY** assisted, by repeat, tape-provided lessons...**REPETITION!**

NOTE #17 TTEC would get **BONAFIDE** educational resultsin a very short time The TTEC concept, espouses, that not only are all people equal, but that all children, regardless of race, color, creed, economic circumstance, have an inherent, **equal opportunity to excel**, under **EQUAL** circumstances, (all, with the **SAME** caliber of teachers).

HISTORY has proven, that **NO RACE** on earth, has a monopoly on brains. As different races/people ruled civilization, intelligence/ Scientifically-oriented Countries/people, dominated specific time eras, (and will **ALWAYS** continue to do so)!

Whether they had more intelligent leaders or superior technology, or whatever

their reason for being world leaders, such can be traced back over millennia, to show proof of this concept/statement !

NOTE # 18 Fulfillment of another benefit, by the Students use of (TTEC). The Students, initially under the stewardship of present local teachers, in the studio, actually handling the equipment, and transmission of same, are getting valuable “hands-on” experience, in many different facets of operation, associated with that profession. See NOTE 31 herein, Wemrock Brook **VERBATIM**.

If mistakes are made, it is **NOT** a disaster. There are no advertising customers, who would be unhappy with those committed errors, but in fact, an additional learning experience !

VERY IMPORTANTLY: The students would get a good dose of elocution, first-hand information-disseminating programming, acting, show business, photography, scenery, lighting, etc., generally speaking, those things associated with, Television production activities !

The Students operating the Studio(s), would first begin the “HANDS-ON” training, in the Classroom proper. This would be a basic indoctrination to the more sophistication of studio-operational workings. Needless to say, females as well as males, will all get the same training/opportunity! See **NOTES #20 & #31 herein**.

NOTE #18 A E Mail to the New York Times
Dear Mr. Dillon:

The Federal Government has taken a good idea (certify teachers’ ability) and turned it into an **unachievable nightmare**. Expecting ALL teachers, to reach a standard of excellence, is ...NOT... practical nor... doable.!

Assume the numeric system,.. **1.. to .. 100 ..**, in which..**100 ..** is the best rating attainable, to indicate maximum proficiency!

Assume the number **.. 90 ..** (or better)... represents excellence.

Assume the rating of **.. 75 ..** would satisfy the Federal government’s order.

Now assume a rating of 50..which would represent a badly-failing teacher. With special teaching/effort, that teacher's competence level, might be raised to a **..60..** or even **.. a ..70.**

A teacher, originally classified as a **60..**, might be elevated to a rating of **.. 70** .. (or even **.. 75..**), good enough .. to get the Federal Funds !

Continuing on, the Teacher originally classified as an **.. 80..** might be elevated to a **..90..**. THESE ...are the ones that we are starting to be interested in !

However, the few teachers, originally classified as a **..90..** might start approaching the **unachievable level** of perfection (100), although no one will probably ever be rated at **..100**. These... would be selected and designated as **“Master Teachers”**.

All this "assuming", is to make the point as follows: Ideally, we really only want/need, the few **90+** rated teachers, which represent... **la creme de la creme !**

Perhaps, since only half of the system's teachers have achieved the **NCLB** criterion, the school would, according to the Feds, ... fail. In fact, selecting only the **90+** rated teachers, as taught by **TTEC**, represents the optimum, any system of education in the world, would be delighted to be used, to educate their students.

Now the problem is: How do we get **ONLY** those few teachers, to teach ALL the students, in the entire system, a pre-approved curricula ? For answers... and more.. see the main document herewith, ©1978 (**“Two Teachers in Every Classroom”**) **TTEC !**

NOTE #19 2003 City of Paterson, N.J. already has at least one studio presently. Such is located in one of the High Schools. This studio gets limited use, but has yet not been used as advocated via TTEC, at this writing, primarily, because funding is not available, and because they are **NOT** using the **TTEC** System.

NOTE # 20 TTEC fulfillment of another benefit in the use of TTEC, is many technical, complicated- appearing jobs in the communications (Television/ Motion Picture associated lines of work), are actually reduced to simple experience, (being the only necessity), for ANY party, to perform well.

This is because, technology is bred into the equipment itself, and only a minimum amount of education is necessary to operate all the different devices commonly used/necessary.

Since all the chores of operating a T.V. studio are being done by the students themselves, there is no need to hire high priced personnel to do so. While the students are not being paid, they are gaining experience in all the intricacies, jargon, involved in the Television/Movie industry(ies). See **NOTE # 31 herein**

Some employers, for most facets of operation, might hire a High School graduate with hands-on experience, BEFORE hiring a college graduate, who has no experience.

NOTE # 21 City of Paterson, New Jersey tied all 54+ schools together. The more schools tied together (and even between cities/counties/states), the more effective/UNIFORM, will be the system of education.

NOTE # 22 2003 June 9, State of Florida, Governor Jeb Bush limiting class sizes. As outlined in the main document, increasing class size to 30 or 35 students, as practiced in TTEC, would NOT hamper the education of the students, because the Adjunct Teachers would have better control of the pupils, NOT have to worry about presentation of the subject matter.

As reiterated herein, since the class size would contain more pupils than currently exist, that would be the Adjunct teacher's main priority. Limiting class-sizes, pressure for additional Schools, Teachers, expenses, etc. City/State/Country-wide, would thereby ease. New facilities would only be necessary, because of inevitable population increases.

NOTE # 23 2006, January 15, the State of Alabama published a Request for Proposal, at the first level. It is my belief that the State officials, responsible for the Education of Alabama's youth/ citizens, are looking for a system similar to TTEC, but they do not know it yet !

NOTE # 24 2006, Feb 2, Maryland State Superintendent Grasmick's Panel states the importance of continuing funding for adult education. One of TTEC's very valuable characteristics, is that it has the ability to educate adults (alongwith the students in their system/City/State), at little, or NO extra cost to the government .

Any person desirous of receiving/continuing/enhancing their education (whether or not they have children attending school) can do so, in their own home, at a time of their choosing, at their own pace, at NO ADDED expense !

Needless to say, TTEC will be of benefit to pre-schoolers also, by viewing taped lessons, of past/ongoing kindergarten/1st grade, even second grade class sessions, BEFORE they are of school age.

NOTE # 25 2006 Feb 13, another announcement from Passaic County's Prosecutor's Office smart camera and swipe cards. The purpose of that system is to know if there are any persons unauthorized to be in any of the three schools. This is a good idea, but it does NOT go far enough. AGAIN, more

importantly, that system will also have yearly recurring costs, really **NOT RELATED** to, educating students.

To really be effective, there should be located, on each school's premises, someone who may be alerted and is trained to respond in minutes. As a secondary backup, **TTEC** provides notice to the Police/ Fire/Emergency Departments, (as the case may be), as and if, desired.

One of the very important part's of the **TTEC** system, (besides the many herein listed advantages), is the fact the **TTEC** will also conserve funding and spend money on education, **NOT** on unrelated/un-needed, purported, recurring costly technological advances !

NOTE # 26 Equip at least one central control monitoring system. This system would have total control/access to all facets of the **TTEC** System, including All repartee, Security, General Assembly, etc.

NOTE # 27 May 7, 2006 E Mail to Newsman Dan Walters of Sacbee
Dan Walters
c/o Sacbee
Your article of May 1, 2006 "No Correlation between spending, High School graduation".

New Jersey has been erroneously cited as having the highest spending (by far), per student, because of, in large part, such was mandated by the N.J. Supreme Court, in a landmark decision some **(9)** years ago, [**now 2007**].
(See below)

Said decision resulted from a lawsuit by certain parties, to correct perceived inequities in school systems. The Supreme Court of New Jersey, ordered exorbitant sums of money, be supplied from the State to Cities, termed them, **ABBOTT Cities/Districts**.

However, the highest spending figure per student, as reported by many experts, is misleading, because the **ABBOTT cities**, receive an extremely disproportionate amount of N. J. State funding. These "**Abbott-designated**" **Cities**, largely minority-dominated, are led by the three largest cities in the State, namely:

Newark (#1) (predominantly African-American).

Jersey City (#2) (predominantly Latino).

Paterson (# 3) (55% Latino), 35% African-American)

Other cities, such as Union City, Burlington, Irvington, Camden, Gloucester, East Orange, plus **(22)** other Cities/ Districts, while **NOT** wholly dominated by African-Americans or Latinos, they **DO** have heavy concentrations of same, in certain Schools, of each City.

Therefore, with a closer look at per student spending, for those areas just mentioned, ADD an additional **\$3,100.00** (or more) per student, to the cited **\$12,981.00** (yielding a new figure of **\$16,281.00** or more), per student, for the ABBOTT Cities' students.

Now deduct the **\$3,100.00** dollar per student, the rest of the State's Students received only **\$ 9,681.00**, per student, more in line with the rest of the States. (see below, crooked contractors steal **50,000,000.00**).

Further in-depth analysis of how the Educational funding was apportioned, will (by un-bigoted appraisal), show that the so-called minority students (even though they represent the bulk of the population in their city/district), receive the most dollar assistance, approximately **40 %** more, than their N.J. brothers.

So, even though the **MAJORITY** of **MINORITY** students got the **MOST funding**, THEY **FAILED** to graduate, percentage-wise, MORE students from High School, than their less-funded, **NON-MINORITY-DOMINATED** students, in the rest of New Jersey.

Because of the careless way the authorities erroneously calculated cost per student, nationally, such appeared to go contrary to your "No Correlation Between Spending, High School Graduation" article. You are hereby proven to be **ABSOLUTELY CORRECT !** (especially for minority students [Abbott Districts], of New Jersey).

Because of the careless way, funds were given from the State, for disbursement, by the City School Chief in Paterson, with no oversight nor accountability, you can assume more money was stolen/mis-spent in many, if not in all the other **30** districts,.... a distinct possibility. Therefore, the amount of money spent per student, would have to be adjusted, yet, even further downward.

Add to the mis-spent Educational funds, many buildings being leased by the School System, not owned by the School System, nor the City, were completely renovated/modernized, under the guise that the students needed a good-looking facility, thereby giving **NO long-term benefit** to the School System nor the City, BUT still was counted, as money spent for education !

Worse yet, in Paterson's case, some **Fifty Million Dollars, (\$50,000,000.00)**, [money that was included in the per student spent], was actually stolen by crooked contractors, who renovated the non-owned School System buildings, as well as many more millions for the renovations done in School/City-owned buildings, (again with **NO** long term gain for the City/School System.

In fact, a good number of people went to jail, and the investigation is still continuing (**April 2006**). Further investigation/analysis: Why are the **ABBOTT Cities/ Districts**, (**minority-dominated**), so in need of such outrageous EXTRA funding ?

Is it because the minority students are not as bright ? ... **Or**

Is it because the parents are not as interested in their child's interest ? ... **Or**

Is it because the School Buildings/facilities themselves, are in dis-repair, or falling apart ? ... **Or**

Is it because the Abbott students do not have enough modern books, equipment ? ... **Or**

Is it because there are too many students in every class ? ... **Or**

Is it because the best teachers are **NOT** being used in ABBOTT Cities/ Districts ? ... **Or**

Is it because the best teachers themselves, will **NOT** reside in minority-dominated Cities/Districts ? ... **Or**

Is it because the teachers that do teach, do so, because it is just a job ... **Or** where they get a day's pay ?

Did we run out of excuses ? Throw some more money at the problem, ... too many people's/organizations/Government officials think, that will do the trick !

Bill & Melinda Gates donated large sums of money to selected organizations /institutions, which were organized to address the Educational crisis, currently DROWNING the people, with prohibitive taxes,. those **who could least afford it!**

Mr Gates said in words to effect : The **system is broken**, take this money, and **fix it !** All they the (so-called experts) **did**, was play with the numbers/percentages, cite myriad problems, espouse mythical solutions with un-attainable goals, use a plethora of LARGE WORDS, and themselves, just spend the "free" money. Now (**circa 2005**), the Gates foundation money has been doubled to try to resolve

the Educational mess. More importantly, **Mr Gates** is retiring from his wildly successful company [**Microsoft**]. He plans to spend full time, to use his considerable talent(s), administering his philanthropic endeavors, including the School debacle, armed , with his arsenal of some 60 or 70 BILLION Dollars.

Dan Walters was right AGAIN ! When he said: “UNFORTUNATELY, THE POLITICAL DEBATE OVER EDUCATION HAS ALMOST ENTIRELY FOCUSED ON MONEY, RATHER THAN FOCUSING ON THOSE OTHER FACTORS & DEVISING STRATEGIES TO OVERCOME THEM IF INDEED, IT IS POSSIBLE TO DO SO” !

TTEC TEACHES ... IT ... IS ... POSSIBLE ... TO DO SO !

For the past 29+ years,(circa 2007), I have **watched, (impotently)**, the circus of Politicians, Educational-responsible Governmental Employees, Academia and other supposed “**experts**” of Education, all come to the SAME mistaken conclusion. MORE MONEY, would solve the problem. New Jersey’s track record, PROVES how wrong that ALONE is, and **CONTINUES** to be the **WRONG approach/solution** !

I say 29+ years because, in 1978, I devised the unique educational system to economically, **EFFICIENTLY, EDUCATE THE MASSES**. This system, we are discussing, called, ©1978 “**Two Teachers in Every Classroom**” (TTEC).

Basically the **Teacher #1, (MASTER TEACHER[M T])**, teaches a State pre-approved curriculum(a), via a projected picture on a T.V., (known in 2007 jargon, as a **Virtual Teacher**) residing in each and every classroom in the system ! The [**MT**], will be assisted by **Teacher #2, (Adjunct/Assistant Teacher)**, present in each and every LIKE-GRADE classroom.

Example : (35), **4 th-grade** classrooms, (with (25) students in each class), are linked together, via a fiber-optic system, (co-axial cable will also work well). All **875 Pupils** are being taught by (1) [**MT**] and (35) **Adjunct Teachers**, (in this example, for these purposes), English.

The [**MT**], was previously vetted by the State, and has been rated a SUPERIOR teacher, of English. Because the [**MT**] is teaching (SIMULTANEOUSLY), **ALL** the (875), students, without regard to the student’s race/color/ creed or economic circumstance.

You would have now effectively attacked and **OVERCOME**, several of the often decried obstacles, contributing to a poor academic showing for minority students, as herein- before cited. A **WIN/WIN/WIN** situation.

Since **EACH day's lesson(s)**, are being video/audio recorded. They are **available for the student's home-study**, for their siblings, as well as being stored in libraries, for future use/modification/updating, etc.

These **daily lessons** are also a **valuable learning-tool** for illiterates, adults, or in homes where English is not the first language/for foreign-born persons, regardless, if they have children/relatives, in the system, or not, (via Government-maintained library-storage facilities).

This would also be extremely cost-effective, because many States today, have acknowledged the importance of **Adult Education**, and are actively funding the same, now ! The **TTEC system allows Adults to pursue further Education**, in their **own home**, at their **own pace**, at their **own allotted time !**

NOTE # 28 An Electronic Engineer working for me, in the early **1950's**, was offered, and took the position, with **Sylvania**, to build a Picture Tube Plant, (from the ground , up), in **Mexico**. He was to build it, staff it, equip it, and run it !

He kept in touch with me, whenever he ran into a problem. I WAS an expert in such endeavors as, all told, I set up **(6)** plants, **(5)** in the U.S. and **(1)** in **Windsor Ontario, Canada**). This was his first endeavor.

When he finally got the plant running, I asked him how many people he employed, and how many tubes he was making (and the reject rates). He said that "he could employ **(3)** times as many people in Mexico, than as in the States, for the salary of One **(1)** U S worker".

BUT, he was **NOT** too enthusiastic about the in-plant quality, the work habits, nor the quantity (per worker), of the goods produced.

NOTE #29 1st - Patent **#5,703,636 12-30-1997**, **Hi-Resolution Optical Communication System "HiRocs"**, was the system which was going to be instituted in the City of Paterson, New Jersey. HiRocs was the bedrock, upon which the TTEC system, was to be implemented.

The HiRocs system, provided for a 24 hour, 365 day security system; Teachers and pupils security system, Police/Fire/ Medical access; FREE Internet access; internal, as well as income-producing Telephony; mass communication in high-definition form/display television plus automatic utility meter reading (which in itself provides many useful activities)..

NOTE #30 - 2 nd Patent # 6,372,978 B1 4-16-2002, Hybrid Solar Heating System During the President Carter Administration, (when oil jumped from **\$10 Dollars** a barrel to **\$40 Dollars** a barrel), as the Chairman of the Passaic County Energy Commission, of New Jersey, I developed theories/initiatives to help/mitigate/alleviate, the United States' energy problems.

FOR THE RECORD:

Relative thereto, I initiated a series of documents, offering a possible solution/easing of pressures, to them. I sent them to then President Carter, with copies to the following:

- 1980 U.S. Energy Commissioner
- 1981 President James Earl Carter 1977- 1981
- 1981 President Ronald Wilson Reagan 1981-89
- 1983 Governor Brendan Byrne N.J. 1974-1982
- 1984 Governor Thomas H. Kean N.J. 1982-1990
- 1989 President George Bush (I) 1989- 1993
- 1990 Governor James Florio N.J. 1990-1994
- 1993 President William Jefferson Clinton 1993-2001
- 1995 Governor Christine Whitman N.J. 1994-2001
- 1998 Oct 31, Richard Riley, U.S. Education Senator
- 1998 Nov 10 John Podesta, White House Chief of Staff
- 2002 Governor Richard J. Codey N.J. 2002
- 2004 Governor James Mc Greevy N.J. 2004
- 2004 President George W. Bush (II) 2001-2009

Amongst many ideas, I suggested (and **STILL continue to suggest**, in many different venues), the following: Starting at the State level, **equip ALL Government-owned buildings**, with at least one form of elemental heating, or combination of: Solar Sun and Thermal-Electric Solar Cells), Wind, Geothermal, Wave/Tide Energy, etc.

As the manufacturers gear up for the production of those devices, the costs for producing many more of them, (**economies of scale**), will decline.

As the **cost of energy**, for those State buildings, **decline**, such savings may be allocated for assistance to the Public, in purchasing/installing similar equipment in their homes. This would have the welcome effect, like a **SNOWBALL** rolling downhill!. As more State buildings are so-equipped, and the lower the State's energy costs go, the more that, that money, would be made available for the public's purchases.

I was asked. How would **YOU** propose we fund this? I answered, very easily. Impose a State **ENERGY-SAVING-TAX** of **\$.05** on every gallon of gasoline; **\$.05** on every pack of cigarettes; and **\$.05** on every quart of alcohol. Unfortunately, back in **1981**, it was considered suicide, (politically), to impose said types of taxes.

Note: This meeting took place, face-to-face, with only the Three top officials of the State and myself. The date and State is not mentioned herein, because one of the three was a close personal friend. I would not care to embarrass **ANY** of them. Evidently, the passing of years, such, **STILL** is **NOT** feasible either! The Federal Government would rather throw money into private Companies, hoping they will solve ..the Government's problem!

To be fair, I also presented this plan to many Federal politicians, ostensibly, from a Public Official who was supposed to know about energy also, obviously with **NO RESULTS** ... either!

If a **State initiative** **proved effective** and popular (good for getting votes), then: presumably, the Federal Government would see the wisdom of this effort and start installing Renewable Energy Equipment in/on all Federal Buildings.

Likewise, as their energy costs began to decline, in those installations, let the savings be applied to a Federal discount/rebate, to the Public, (on top of that, already granted by the State).

With the purchase/installation, of renewable energy-saving equipment, in homes/businesses/office buildings. etc., savings shared among the Public/State(s)/Federal Government, will then have achieved a remarkable **WIN/WIN/WIN/WIN** situation, (could have been a good vote-getter, also).

NOTE # 31 Pages N 23 thru N 26 are all part of **NOTE 31**

Nov 8, 2006 NEWS TRANSCRIPT, VERBATIM, Farmingdale, N. J. School broadcast spreads Wemrock Brook news Students are learning how to use equipment and conduct news show Written by **AMY ROSEN** Staff Writer

MANALAPAN Gone are the days of faceless public address announcements providing the happenings of the day at the **Wemrock Brook School**. With a new television studio installed last spring, morning announcements at the school look more like CNN, than **a fourth- through- sixth-grade**

"Quiet, please, on set and roll" is not a phrase one would normally expect to hear first thing in the morning at a typical elementary school, but that is what music teacher **Laurie Bischof** says to her pupils as they begin their live broadcast of the "**Wemrock Brook News**" each day. **Page N 27**

The "**Wemrock Brook News**" is viewed by students and teachers in the school every morning. Almost every classroom in the building has a TV on which the live closed-circuit broadcast can be seen. Everyone involved must be able to remain calm under pressure.

The "**Wemrock Brook News**" is more than just morning announcements. It is a production **run entirely by sixth-grade pupils** under **Bischof's** supervision.

Bischof said the pupils who run the TV studio are chosen based on teacher recommendations. They must show self-control, responsibility and leadership. Tech crew members must show an affinity for operating computers and equipment with ease. Anchor people must be personable, have strong reading skills and be able to speak clearly. They must also pass an audition.

My goal as director is for the crew to be able to do it without me if I can't be there and these kids can do it! They're great at it," she said. **Bischof** speaks highly of her technical crew, which has saved the day on several occasions .

"The kids must be quick and cool under pressure," **Bischof** explained. "One day [some equipment] shut down as the show was about to start and the crew solved the problem quickly. The plug had fallen out. Without the technicians, the whole thing falls apart."

There's a lot that goes on behind the scenes to make the "Wemrock Brook News" run smoothly. **Bischof receives information from administrators** and

teachers on a daily basis. She processes it and e-mails the news script to technician Jared Goldstein, who formats the text and runs it on a machine that projects the script where the news readers can see it. Jared's job is also to cue the anchors when it is time for them to **read the news**.

Jason Oesterle performs a similar job when handling **special segments** such as weather, "**Project Wisdom**" and sports. "**Project Wisdom**" is a special segment created by the school counselor during which a **guest speaker** passes along words of wisdom that encourage compassion and positive thinking, such as "stop violence and let's live in a world that's safe and fair" and "let's start treating each other with respect./

" The messages are accompanied by quotes from **famous people** such as **Albert Schweitzer** who said, "The future of mankind depends on being fair and kind." The studio employs **high-tech graphics** on a daily basis. One such example is the spinning globe with the words "Wemrock Brook News" written across it which marks the beginning of the news. Graphics technician Mikey Rosen handles the **computer-generated graphics** for each show.

Special graphics are also used during the **Pledge of Allegiance**, which shows an **American flag**, along with a prerecorded audio version that leads the students in the pledge. Professional-looking graphics are employed for special segments as well, including the backgrounds for the weather.

On Mondays, a list of people who are celebrating birthdays that week is shown. Mikey also cues video technician Greg Yip, who controls the **video mixer** board. Greg's job is to smoothly **transition the various segments** that are broadcast during the show.

There are **(2) camera operators**; Samantha Loures runs the camera for the anchors and Jessica Bartlett runs the camera for special segments. Jessica is also the sound technician. She runs microphones from a sound mixer and **cues the special segments**.

On-air News anchors Carly Zucker, Sabrina Vigliotti, Maya Ramachandran and Austin Tymeck take turns presenting the news. Gabrielle Silinsky, who provides the weather forecast for the week, and Matt Minski, who discusses the **World of Sports**, are the newest additions to the on-air team.

Carly, who says she hopes to become an anchorwoman in the future, enjoys being a part of the television studio at her school. She and Sabrina agree that "it's really fun and a **good experience**."

The **TV studio** is also used for special programs such as **Back to School Night** when parents visit the school and meet their children's teachers. This year's edition of Back to School Night began with a television presentation in each classroom that featured Principal Jacqui Martin, Assistant Principal Jayme Orlando and PTA President Dawn Oesterle welcoming the parents.

In addition, prerecorded special segments on **Teacher Appreciation Week** are created in the studio. Last year's segment featured one of the anchors interviewing students about what makes a teacher special. The segment was also used during the **orientation program** for **incoming fourth-graders** and their parents.

According to **Bischof**, plans are in the making for other **short programs** on upcoming holidays and days of significance on the school calendar, as well as **educational videos** for the **staff and students**.

"Our TV studio is not only helpful in offering our students information to start the day, but it's a great educational tool." **Bischof** said. "Our studio also provides us with the **ability to show a program to our entire school**. For example, school counselor Patricia Daccurso and I will be putting together a video project to educate our students on peer mediation. Our goal is to broadcast this educational video to the staff and students."

Bischof credits colleagues Rose Cruz, the school's computer technician, technology teacher Valerie Hecht and teacher Scott Roskos with helping her to set up, learn and use the equipment in addition to providing her with support throughout the year.

According to Martin, the **television studio is school funded**. The **Manalapan-Englishtown Regional School District** provided funds for the original television studio equipment used not only in Wemrock Brook, but also in the other two fourth- through sixth-grade schools in the district (Lafayette Mills and Pine Brook), in addition to the Manalapan Englishtown Middle School. Martin is proud of this new educational tool in the school.

"I think the best of it is that it's an avenue for the kids to have a **part in [the operation of] their school**," she commented. "They know technology better than us. It's their world."

Bischof, who fancies herself a bit of a "tech geek," is grateful for the opportunity to work with the children in the studio. "I like to see them do something they enjoy," she said. "**As a teacher you hope to inspire someone**. I would be thrilled if one of my students went into the television field as a

result of this experience. That would make my day. That would make my life.

" That's the news for now and "Have a Great Wemrock Brook Day!"

This article has been printed in **its entirety, verbatim**, without a single word changed, added, omitted, nor in any other way modified., (but without pictures).

A thank you to Mr. **Gregory Bean.**, Executive Editor, of **GREATER MEDIA NEWSPAPERS** for permission, to print, the well-written informative article, by **Amy Rosen, Staff Writer**.

This article is seen as confirming an **important by-product** of the **TTEC** system, as espoused numerous times, herein, namely, that a College Degree is **NOT** necessary to operate a communication/television network. It also confirms that “hands-on” training is an invaluable, very effective way, to teach our young students (again as espoused by the author in **1978**)!

By no means, does this TTEC System suggest/obviate ,the necessity of a College Education, but rather, does suggest that students, unable to attend college (for any myriad of reasons), need **NOT** be confined to low-paying jobs, for the rest of their lives!

NOTE: See **Notes 18 & 20 ALSO herein**. As **promised and taught by TTEC**, the students will benefit from (**“hands-on”** experience), because of the opportunity to acquaint themselves with these modern techniques. in communication/mass educational opportunities.

The TTEC System will provide the **basis** for **future/further education**, and most certainly, **WILL result**, in some of the participating students, pursuing careers, in the Television/Communication venues !

Further, participating students who do go on to Higher Education and then choose Teaching as a career, will have themselves, become more proficient at teaching the future generations.

NOTE: In an exhibition of the strength and flexibility of the TTEC System, a **Step 8** has been added (**circa 2005**): Equip the System with **“Wi-Fi”** capability on installation of the TTEC Network. It will cost next to nothing to implement and maintain. This will bring the TTEC System, into the **22nd Century**, making it increasingly, the most powerful teaching system.... **EVER!**

Various E Mails among 3 people.

Oct 7, 1990 by Pat Choate Washington Post Special . . .

Date: Thu, 29 Dec 2005

From: " Edward Leu----- ed@att.net

Date: Sat Dec 24 10:02:10 CST 2005

To: Wayne --- wayne@verizon.net

Subject: "Agents of Influence ", How Japan Stole the US Television Industry

Hi Wayne!

Here is an old clipping, but important. I've just now finished Pat Choate's book, "[Agents of Influence](#)" and I think it's some-thing everyone should be aware of. Please read and then jot down your impression of things.

Regards,

Ed

From: wayne---@verizon.net

To: "Carmine Cifaldi" Ccifaldi@tampabay.rr.com

Sent: Monday, December 26, 2005 4:51 PM

Subject: Re: "Agents of Influence "... How Japan Stole the US Television Industry Oct 7, 1990 by **Pat Choate** Washington Post Special...

Dear Carmine, I knew this would bring back old memories for you. Ed Leu-----, is an old high school mate of mine who lives in Cleveland. We had a company in Calif. who made, (including TV home entertainment systems for, (several of the Western States) called Teledyne Packard Bell.

We were involved in the Commerce Dept, to get dumping duties charged against the Japs but as you know they had the American Govt. in their pocket.

Regards **Wayne** . . .

Hey Wayne

I remember the name "Teledyne". Was that your company, or a division of Packard Bell? Isn't it a small world? When I was in the television Tube business in the early **1950's**, there were approximately **100+** T.V. Tube Manufacturers in the U.S.

The **early Japanese Tubes were actually inferior** to those manufactured in the U.S. They were constantly playing "catch-up". I have personal knowledge,

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because I was called in (**as an expert**), by **Olympic Radio & Television** in Long Island New York.

They wanted me to investigate the reason, for the high failure rate of the Japanese tubes, in comparison to, the low rate of failures of tubes, which were manufactured by my company, for **Olympic !**

The tubes were diagnosed, by Olympic Engineers, as containing numerous shorts in the Jap's electron guns (of which, I had an improved electron gun design patent, at that time [**Circa 1953**]).

I did my bit to get back at Pearl Harbor, (my brother served on the **USS Enterprise**), by confirming the OLYMPIC Engineer's findings. In reality, the problem was caused by poorly-CONDUCTED research by the Japanese), of method(s) to cut manufacturing costs, which they thought, was State-of-the-Art.

This problem plagued the entire T V Tube Industry, world-wide, **EXCEPT MINE**. That was because I detected the problem in the testing stage, of my company's usage, of the new process, as promulgated by RCA (world-wide leader, at that time).

Not to get too technical, it was started by RCA, (the leaders in the field, at that time), to remove dependence on a skilled glass worker, who was necessary to separate the finished CRT (a glass connection), from the glass vacuum pumps.

There were **2** pumps for each tube/system): one, for fast, quick low-vacuum, and a second, much slower, but producing an extremely high vacuum, along with de-gasification of the entire system. Gas was normally generated (besides residual), in the manufacturing process for the CRT, as well as its normal operation, in a TV set.

High gas content (residual in material used in manufacture), has several serious side-effects, (without going thru all the deleterious conditions), the most important was that it seriously shortened the life of the CRT.

Because that new system did not work properly, it took about **3 - 4** months for the tube, to display the problem. This came about as indicated by an instrument which measures gas content.

The high gaseous condition of the Tube, was discovered during my conducting weekly, routine tests. The tests revealed that, air, (a gas), was being admitted into the tube, in microscopic quantities. The testing equipment did **NOT** differentiate between air and other gasses.

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I tested a number of finished tubes, on a weekly basis, over a **6** month period. Within a couple of weeks, I found the gas content rising, inexorably

higher, and knew the system as it was, was not yet ultimately viable. Some months, [or **5 or 6** later], (depending on the severity of the leakage), the **first indication** of air in the system (tube being tested), became readily discernible.

It was visual, as evidenced with the application of a spark-generating, device (oscillator), also called a "spark-coil". It first displayed a deep blue, then a faint purple glow, and then a deep purple shade). Eventually I determined that a high unacceptable percentage of tubes, using that system, would ultimately **FAIL** in a few years, ..or .. less !

Then, there was a long period of time spent, because the shipping was being done by boat.(between the U.S. & Japan), that the situation existed. it therefore took the Japs, about a year longer, for them to rectify,(with tremendous losses, and "**loss of face**") because of the abnormally high reject, failure rate. But they survived, because , they were buoyed up by the Japanese Government. An American company would **NOT** have survived!

I avoided this problem, simply by keeping my glass-workers performing the separation of the tube, from the system, (unlike every TV tube manufacturer in the world, which was following RCA's recommendation).

Fortunately, for many manufacturers, many leaks were so minute, that some tubes could last up to **2** years (the guarantee was for **1 yr** only). That's one of several reasons that the replacement market in the US alone, at the time, was approximately Ten Million (**10,000,000**) tubes per year.

This INDUSTRY-WIDE problem was rectified after **15 to 20** months from the first failures,(costing the entire industry, (but **NOT** my company), tens of millions of dollars). The **Japs were hit harder** because of shipping lag.

I used the RCA-recommended procedure, **ONLY AFTER** I devised a very effective, fail-safe, back-up procedure (some **15** months later) The complete story available on request (if you are interested) ! That was not the 1st time, (nor the last time), the world TV tube manufacturers got in trouble, following recommended usage of RCA licensing procedures.

The second **MAJOR problem** (at about the same time), came about because of the Korean War. In an effort to conserve **NICKEL** A small tab connecting the cathode cylinder with an external connection from the T.V. Chassis, used a substitute metal, in the manufacture of the electron gun.

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A filament fits inside the cathode cylinder, where it operates at **6.3** volts **@ 600 MA**), where it generates a tremendous amount of heat,(about **800** Degrees Centigrade [**1,472 F**]), to the top upper part of the cathode cylinder.

The gun manufacturer deposits a coating, atop the outer outside of the cylinder which is called the “cathode coating”, from which the electrons are shaken loose. They are then formed into a beam, and accelerated by various voltages introduced to the electron gun,(as high as **15 to 20,000** volts), to produce. the picture.

The stream of electrons are thereby directed to impinge the Phosphor screen, in a manner ordered by the Televised signal, broadcast from the video camera, in the Station or place of televising.

This non-nickel material broke, right where it was attached to the Cathode Cylinder, after so many hours. Therefore the appropriate signals, could **NOT** be sent to the Electron gun, called to produce same, by the chassis, (in response to the video information presented to it, from the source).

All the new and reconditioned/rebuilt tubes using the defective gun material (**non-nickel**), produced during that time, were subject to that defect, till the time when they figured out what happened..

I did not suffer that problem, because my **FIRST** Patent, in 1953 dealt with a modification of the electron gun, which **ALSO** took into account, that possibility. My electron guns (both Black & White), and **LATER** Color Guns, incorporated (at extra cost),that effective use. Consequently, I had **ZERO** returns for “open cathode”, even with those, using that inferior metal.

With a reapportionment of the material comprising the cathode coating, (more technical mumbo-jumbo, but, if you want it ...I got it)! Now, coupled with the elimination of these two major problems, the majority of tubes produced today, last **10 to 20** years, ... and even more !

Many times they now can outlast the life of the TV set, itself (mainly, generally, not because of advances in technology in the manufacturing process), but due to technological advances in viewing methods and/or equipment (projection technology, and/or the broadcasting of signals).

BUT

The current replacement CRT industry today, is dying/dead,(circa **1980's**). CRT's are now relegated, to the production of special purpose tubes .. **NOT** .. tubes for TV sets. Even then, projection units, and flat-panel displays are

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invading those uses also. Further, projection-TV sets which still **NEED** Cathode-Ray Tubes, as a basis for projection, are also being phased out.

The market today, (2005), is probably 95 % for flat-panel displays (including plasma-produced TV screens, which do NOT need ANY electron tubes). However this now thrusts 3rd world countries in competition with Japan, because it is labor-intensive!

The writer, Pat Choate, (1990), was 100% correct, when he said that the Japanese stole our technology and then killed our TV industry, and allied/dependent industries as well. Then they had the nerve to say that their industry is smarter/better than ours. Another personal story upon request.

Now the prices for flat-panel TVs can be as high as 10 Thousand Dollars (\$10,000.00). It is fair to say that the average flat-panel TV set, (say 50 inch), ready for high-definition Television (HDTV), [circa 2000], is Four Thousand Dollars (\$4,000.00). That is what the Japanese were striving for, way back then.

What Pat Choate could not envision at that time, (because he was not a practitioner of manufacturing CRT's), was that flat-panel technology, in the TV Tube industry, was being sought since the early 1950's and rightly predicting it, as the optimum, (and. HIGHER PRICES).

The American politicians (including PRESIDENTS OF THE U.S..) who let this happen to the US populace, should be ashamed of themselves, and no punishment should be considered too extreme, to be meted out to them, because of their stupidity .. or.. greed.., as the case may be.. THE ONES RESPONSIBLE ARE NAMED IN Mr. Choate's Book !

They all have done a disservice to the very people (AMERICAN), who depended on them, (and they swore to protect). We will continue to pay, thru the nose, for yet, many MORE years, to come.

WE (THE U.S.), ARE OUT OF THE T.V./Tube/SET-MANUFACTURE BUSINESS. It is now time for the Japs to be the victims of cheap labor (and all associated costs), to cut THEIR profit margins. WHAT GOES AROUND, COMES AROUND ! We have irrevocably lost a major technical industry and have left a blueprint for other counties, to successfully steal our future technology.

The only reason, the prices are coming down today, is NOT because of manufacturing or technological advances, but because other nations, (South Korea, China, Malaysia, India, etc.) with a lower pay scale than that of the US or Japan, have entered the extremely lucrative television set manufacture. THEY are now doing to the Japs, what the Japs did to us(well ALMOST

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anyhow), BUT as usual, the American people STILL are paying for it. Instead of a TV set costing an arm and a leg today (2004), they now only cost your arm.

But where else can you go to buy a TV set today, unless it is foreign-made. Now with the huge prices being charged for flat screens, I wonder why the American companies do **NOT** get into the act!

At this point, we have to root for Mexico. I know that Sylvania opened a Plant in Mexico to manufacture TV tubes, in the **1950's**, because an engineer who worked for me, was hired by Sylvania to construct a plant, equip it, staff it, and work it.

From time to time, he called me with problems he was encountering, and out of friendship, I **did** assist/counsel him. I lost contact in the **1970's**, because I had closed my TV tube business and went into a different line of work.

Despite all my efforts and producing a superior CRT, I could not compete. I'll give you an example. I quoted a special purpose tube customer **87** Dollars each, to manufacture **1,000 tubes** for them. It was of an unusual shape. The Japs beat me out by quoting **58** Dollars. My cost for the bulb alone, from Corning Glass, was **68** Dollars!

They used a like bulb, manufactured in Japan. So it was really a double whammy! They also subsidized the Japanese Glass-manufacturing facility and severely undercut Corning Glass. To finish up, imagine the price differential when cabinets and chassis are manufactured in Japan. On top of that, they have to ship by boattoo!

One more thing.. the Japanese HDTV.. In the **1950's** I cooperated with a medical company and produced a special-purpose tube with a P11 phosphor **AND** my specially produced electron-gun, which was capable of projecting a 2000 line (horizontal line) system, versus the U.S. **525 line** system **AND/OR** the vaunted Japanese **1,080 line** system (**HDTV**).

See the main TTEC document which describes part of the germination for a TTEC teaching system, relative to a **SPECIAL PURPOSE CRT**, I made [circa 1950}.

That **2000 line**-capable tube could display a tremendously finer-detailed picture,(far superior than the Japanese HDTV). It was meant to be for top-quality (photo-genetic), results (to see the tiniest veins in the human body).

It was being photographed by the best movie film camera of that time, for medical teaching-purposes. Unfortunately my **2000 line** system, was not able to be used, because (pre-cable use), it also required 4 times as much

bandwidth to be televised, over the air, in the broadcast frequency spectrum.

At that time, that was **NOT** permitted/feasible (not because of television's inability to transmit and receive, those tinier details, but because different people/entities/companies, owned the frequencies which would have been necessary to join together, to accomplish same.

Then, of course, when Technological advances, **COULD** permit that usage, I did **NOT** have the money to pioneer **MY** system, and the U.S. Government would **NOT** help me. **BUT**, the Japanese government DID have the money to assist the Japanese companies to pioneer theirs .

Therefore, WE Americans are continually paying higher prices for HDTV, as well as paying EXTRA to RECEIVE AND WATCH it. By the way, MY **2000 line** system did/does **NOT** need extra viewing equipment. It would already be built into the T.V. Sets, with **NO** special equipment, [with **NO** other cost(s)]!

I eventually received a Patent for my system, using fiber-optic Cable, or on coaxial cable. BUT it may NOW go over the airwaves, by what they call "Streaming", (only over the last several years) [circa 1990's]!

I started the Patent procedure in **1995**. But It was Patented, effective **Dec. 30, 1997**. Patent #**5,703,636**. Check it out on **Google ...Cifaldi,carmine**
Also see **WIKIBOOKS – Television Manufacture and Repair**

I am sure that there are other American industries, under-going the same traitorous happenings, almost as if the elected officials want to see the American way of life decimated.

Someone like Pat Choate should be encouraged to do the same, currently, and name the people (politicians), sabotaging the American people. I WOULD **NOT** MIND participating.

Many heartfelt thanx, to you and ED, for the article. I appreciate it. I enjoyed it, which brought back many happy, memories, AND some, **NOT** so good!

Best regards

Carmine Cifaldi

NOTE ... from the Author of **TTEC**: If you do **NOT** want to get angry, at the politicians/your government, then do ...NOT... read Pat Choate's book, entitled "Agents of Influence"!