The Man Behind Xerography

by Jack Sturgess, BSMME

Most of us know that Thomas A. Edison invented the incandescent light; Alexander Graham Bell, practical telephone; Guglielmo Marconi, radio; and the Wright Brothers, powered flight. How then, could it be that the true inventor of everything is everywhere appreciated.

We have known that Chester F. Carlson, Caltech BSMME, invented xerography, revolutionized paper copying, and sparked a new, billion-dollar industry.

On the same day (May 31) that his graduating class will hold their 55-year reunion, it is fitting that Carlson be remembered for his extraordinary accomplishments.

Whereas most inventors leave frontier concepts of the concept itself of a “better way” did not satisfy Carlson. His motivation was to see xerography established as a labor saver, a cost cutting benefit to mankind.

Carlson's life is a fascinating saga of vision, imagination, hard work, will-power, diligence, tenacity, leadership, perseverance, persistence, and generosity and gratitude. He had a fighting heart, a “dark horse”.

He broke from the conventional, the stereotyped, the traditional. He was too city bred to be a country lad, a genius, but he was indestructible.

Carlson’s life was a struggle. Nothing happened easily. He was born to a family in poverty, to invalid parents. His pay from odd jobs after school was the family’s main income. He worked there nights, while supporting his parents.

He went east, got a job in the plastics industry in 1930, in the depths of the depression, he wrote over 50 letters, was turned down for his receive two replies. Both turned him down.

He went west, to graduate school, to prove his ideas, so he set up one in the kitchen of his small apartment. He worked nights, while he worked during the day.

The following year he made his first demonstration of xerography, creating the world’s first example of photocopied photographs.

He received his patent and sent descriptions of his invention to 21 major companies, including G.E., Kodak, RCA, Addressograph-Multigraph, and Lockheed. He received no response.

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A Review to a Kill

by John Foykars
A View to a Kill

It all begins high on a snowy hill in a Soviet installation. James Bond is alive and well, but buried in the snow. Just as he finds the agent, Bond is spotted by the Russians. He hurriedly opens the agent's locket and removes a microchip, then slips down into a fantastic chase scene. Unfortunately, it's all down hill from there.

I really had high hopes for A View to a Kill. Blasphemous as it may be, I really prefer Moore to Connery (or George Lazenby). Furthermore, I enjoyed Octopussy and thought that For Your Eyes Only was Moore's best yet. A View to a Kill came to me as a great surprise and disappointment. It lacks everything which has made Bond movies so enjoyable--fast-paced, action, dastardly villains, flimsy plots, and neat gadgets. The greatest benefit of this movie manages to be its credit card that opens windows--a far cry from the Lotus submarine.

Another thing I have come to expect from James Bond movies is exciting car chase scenes. Although the opening sequence of A View to a Kill is very good, the other noteworthy chase is a short one that takes place at the end of the movie, in which the villains drive onto a road that is covered with broken glass. It's all down hill from there.

To the Editor:

More than 500 scientists at Caltech and Jet Propulsion Laboratory, including six Nobel Laureates, have signed a petition opposing the growing militarization of outer space, which may "increase the risk of conflict between one or more major powers, and thus increase the danger of a nuclear war by destabilizing the existing strategic balance." The signers expressed the hope that "an unprovoked and costly new arms race can be avoided, and that instead, the peaceful utilization of space may come to a point where a new and more cooperative future." The petition, presented in the March 1 issue of The California Tech, among other places, called upon Congress to: (1) Declare an immediate moratorium on the development and testing of all space weapons; (2) Resume the use of all space weapons; (3) Refrain from further demonstration missions of the 1967 Outer Space Treaty and the 1972 Anti-Ballistic Missile Treaty.

The Space Weapons Study Group, which circulated the petition, last week sent the petition to every member of Congress. Members of Congress were urged to support amendments to the Defense Authorization Bill to extend the moratorium on tests of anti-satellite weapons, continue adherence to existing arms controls treaties, and eliminate funds for research and development projects. The group called upon Congress to reduce overall SDI funding to a level consistent with that of a pure research program rather than a weapons development program. Caltech has long been respected as a leading center for engineering and scientific research. Caltech and the Jet Propulsion Laboratory, which work with NASA, have had a long association with the civilian space program. TRW has conducted such exploration projects as the Viking Mars landing and the Voyager flyby of Jupiter and Saturn.

The Caltech Y Fly-by

Friday ... May 31
Xenophobe? Too bad! It's The Strangers' Noon Concert, on the Quad.

Saturday ... June 1
Take me out to the Ball-Game...L.A. Dodgers vs. the Montreal Expos, 7:05 PM, Tickets: $5. The Y-Car leaves at 6:20 PM. Sign up and go.

Sunday ... June 2
Skeptical about ESP? I thought so, join the Southern California Skeptics and the Y for a talk on ESP with Scott McCloud, Columbia University Psychologist, Buxer Lecture Hall, 2 PM.

Saturday & Sunday ... June 6 & 9
Supercalifragilisticexpialidocious can't describe it. It's the incredibly, astoundingly phantasmagorical DECOMPRESSION!! Food, fun, games, movies, and more. Braille and Gallant, 8 PM until???

Also...

Start signing up if you want rides to the Airport Bus. The Y will be making runs during business hours of finals week.

Any comments, ideas, or questions? Shop by the Y or call 336-6163

The Space Weapons Study Group was formed in January this spring to promote discussion of the growing threat of the Strategic Defense Initiative in particular. The group has co-sponsored meetings with speakers such as Richard Garwin, a new member of the Senate Strategic Defense Subcommittee, and Gerard Yonas, scientific head of SDS, and has distributed literature on the topic at Caltech and elsewhere.

The Space Weapons Group Study Group can be contacted at 633 S. Pass Ave., #1, Pasadena, CA 91101. S.W.G.
The California Tech
Friday, May 31, 1985

Ars Amore Social Graces

Teachers have a bad reputation (not wholly undeserved) in the area of social skills. Granted, the public-at-large is all too eager to lump students of mathematical and scientific disciplines under the single heading “nerd” and leave it at that, putting us all against a presupposition at the outset. Yet even without the popular bias, many of us here come across as awkward and maladroit.

To say these symptoms are universally applicable to the campus would be as ridiculous as saying that anything is universal about Caltech. One doesn’t have to look very hard to see that we as a group consist of athletes, musicians, artists, actors, singers, dancers, creative writers, and yes, even politicians, to name a few.

It takes an effort to remain (or become) well-rounded in our academically demanding surroundings. The institute requirements in the liberal arts force us, to a certain extent, to make an effort in the non-technical fields of study, but the course offerings are often dismally few. I was reminded of our somewhat peculiar habit around here of referring to non-science, non-math courses as a jump labeled “Humanities and Social Sciences” when I was corresponding with a friend at a liberal-arts college back East. She found it somewhat amusing to put literature, language, and history, let alone philosophy and psychology, under one heading. Of course, she pointed out, her college didn’t even have a physics department, so I guess it balances out. College life, by its very nature, allows the freedom to develop a sense of self and identity. Peer pressure is not a force to be lightly dismissed, but there are enough diverse groups about that one can find his or her own level. If the trappings of social protocol were never very important before, nothing at Tech will act to impose them.

Academics are definitely important; after all, they’re the primary reason we are here. But it is too easy to remain immersed in work, oblivious to the more interactive pursuits of life. The unbalanced male-female ratio is also a hindrance for some.

Many who end up at Caltech had their niche carved out in high school by being “the brainy one,” always armed with the right answer or at least a good argument. Here, however, everyone is bright, and being “the best” is a virtually unattainable goal. Although classwork takes up most of one’s time, academics don’t do much for distinguishing character and personality, especially in the social context.

Ease of manner, conversational skills, and social grace facilitate meeting new people and making friends. In dealing with visitors to campus or striking up an acquaintance away from Caltech, we already have the public assumption that we are boring nerds to overcome in many cases. If not, there is the matter of age. Most Techers are more sophisticated than their age would betray, and so credit is sometimes not given where it is due. True social grace is separate from the trappings and affectations of dressy society. It is the ability to be comfortable in the company of others, and more importantly the ability to make them feel comfortable in your company.

As an example, there is the story of a well-known hostess who frequently threw lavish sit-down dinners. She made a habit of “accidentally” knocking over a wine glass or upsetting a bowl or platter early on in the dinner, so that her guests would not feel conspicuous if they spilled anything later on.

A truly gracious person is someone who can be comfortable in drastically different situations and people. Most of us will belong to more than one social circle in the outside world. There are the people you meet at work, the people you meet at play (such as tennis partners, fellow scuba divers, whatever), the people you meet in community or charity activities, and the friends of your spouse or lover. The various groups one belongs to have different things in common, and it is important to be able to feel comfortable in each of them.

A wealthy acquaintance whom I admire for his social flexibility can conclude business, leave the boardroom for his ranch, trade the limo for a pickup truck, the three-piece suit for blue jeans, and the martini for a cold beer. He is perfectly at home in dealing with executives over lunch or ranchers around a barbecue, even though the two groups are drastically different. The ability to be at ease while also making those around you comfortable is a definite plus when pursuing a relationship. Shyness is perhaps the biggest obstacle any of us has to overcome in meeting new people and making friends. Public speaking courses, in high school or in EIO here at Caltech, can do wonders for one’s development of self-assurance.

Communication skills, consideration, and an awareness of the needs and feelings of those around you are the main components of social grace. It’s a nice thing to have when dealing with a group of people, but it’s even better when you are only dealing with that special someone.

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Smuggled Soviet Film

Come see Hijelings & Accom­plexes, an anti-Semitic Soviet film smuggled out of Russia. It was originally shown on prime time television in Leningrad. View this fascinating film and eat a delicious Bagel Brunch. Sunday, June 2, 11 am, Red Door Cafe. Soviet Jewry letter writing to follow. Questions? Contact Gideon at (213) 208-4277 or x6163.

Read All About It

There will be a meeting of the staff of The California Tech today at 12:15pm in room 127 Baxter. (This is also known as the class PA 15). Feel free to stop by if you're interested in working on the Tech.

Skeptic's Doubt ESP

Former Columbia psychologist H. Scot Rogers will discuss the history, hopes, and failures of ESP research in America and abroad. The lecture will be entitled, “A History of ESP Research.” The lecture is sponsored by the Southern California Skeptics in conjunction with Caltech. The lecture, which is free and open to the public, will take place in Baxter Lecture Hall on Sunday, June 2nd at 2:00 pm. For information, please call (213) 540-9915.

Rogers has been actively involved in investigating ESP research for over fifty years. He was one of the original and most outspoken critics of the methodology of Joseph Banks Rhine’s famous ESP experiments carried out at Duke University in the early 1930s. So much was he a part of that controversy that Time Magazine featured him at length in a 1938 article entitled, “Battle on Rhine,” which contained a picture of him with the caption, “Has psychologist Rogers stuck his neck out?” It took only the test of time and careful re-examination of Rhine’s data to show that Rhine’s work on ESP was not valid and that Rogers’s criticisms were correct. Rogers was also the author of numerous articles on ESP controversy and has been featured on many panels discussing the topic. He is a former member of the national board of the California Psychologicial Association and has received many awards for his contributions to both psychology and humanitarian causes, including the Silver Pi for outstanding contributions to psychology. Please join us for a fascinating topic.

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