

## The Impact Women Will Have in Science and Engineering

Constance W. Rice, Ph.D.

Seattle Community College District, Seattle Washington

Thanks for that wonderful introduction Suzanne - it's so good to have your best friend introduce you. How many of you out there are daddy's girls? How many are mother's girls? All daddy's girls will understand it when I say fax that intro to my mother. I need a reference. (Smile)

Life can be so good. We have a good deal in life. We're alive. We have a good deal in life. We have hope. We have a great pact with life. We can create ourselves. Thinking, feeling, acting, breathing, participating, we can change our own molecules. We can power ourselves. We have done so historically with these elements within us called molecules.

The civil rights movement centered on the holistic in us, what is right. In the seventies, the Equal Rights Amendment movement focused on what is equitable. In the eighties we focused on amassing wealth, becoming financial barbarians making the kill. In the late eighties and early nineties we focused on male/female relations and sexual harassment. In the late nineties we are going to be focused on personal control and personal authority.

We are, in the late nineties, focusing on world views. The globalization of the world has communicated lifestyle options and lifestyle fears. Telecommunications means we have the same information to make judgements as everyone else. So, you - we - or others are increasingly unwilling to have entrenched, elected representation, thus term limits entrenched pedagogy of curriculum. Thus the move to more independent combined studies, and coordinated interdisciplinary studies. This burst of resources and resource access has recreated a new future for many of us. Yet some of the same social discriminations still exist. Tribal wars, immigration concentration camps, internet segregation, racism and sexism, homophobia, forcing hideaway behavior in the world of femaleness.

Educational access is now available from the bedroom. Turn on television and you can get a degree through interactive tv. Turn on your computer, you can get a degree through interactive computer. Turn on your phone and you can choose the way in which you get your information



OMEN IN ENGINEERING CONFERENCE: IS SYSTEMIC CHANGE HAPPENING?

1995 WEPAN National Conference

medicine. (Pause)

Why even come to meetings? Why join WEPAN? The brain can function without sitting beside another human being in an over air-conditioned, stuffy room. Why deal with what to wear, what to tip, what to eat? We could stay home. The why is a complex answer. (Pause)

The "why" we get together is a mixture of renewal, cynicism, synergy, and trust. You can get tired being smart. Sitting in rooms giving your best, problem solving, getting into the creative linking groove and realizing in a single moment that none of the men in the room are listening to your words. They have moved on.

Sitting in a classroom, wanting to ask the question, and seeing the male professor telepath disdain for the woman - the non- believer. Circumventing the "he speak" "She listen," to bond with classmates and wepan members who integrate genius no matter what the package.

Ghostwriting the scientific article, because the editor of the journal knows the male colleague and there will, indeed, be better placement. Carefully crafting the introduction so that your feminine name is mentioned in the acknowledgements.

Participating in the background talk, wishing for the foreground experience. (Pause) yes, we meet for renewal.

Cynicism; sometimes we become cynical about ourselves. The willingness to see one's intellect as an aberration. Perhaps family - mother, dad, brother, sister, husband and children, indicate a weirdness, doesn't quite fit in your strange talk, strange profession. You take it to heart and hide, leaving you with no enthusiasm for what you are and what you can become. Yes, we meet for hope and awareness.

Synergy. According to Dr. Chopra, "your body is a river of life that sustains you. If you sit and listen to it, you will find that powerful intelligence dwells in and with you. It isn't an intelligence of words, but compared to the millions of years of wisdom woven into one cell, the knowledge of words doesn't seem so grand. You have to want to rejoin the flow of the body before you can learn from it, and it means you must be willing to open yourself to knowledge that was overlooked in your old way of seeing."<sup>1</sup>

In forgetting, ignoring, fearing your self-knowledge, you may become prone to victimization. The "I think I could be great but I have no choice but to abandon my plans." We begin conditioning ourselves to

---

<sup>1</sup>Ageless Body, Timeless Mind, Deepak Chopra, M.D.

denial and eventual failure. We need something synergistic to snap us out of it. Yes, we meet for a counterbalance to negative thoughts, which can bring us down as we struggle to be outstanding. And so, we meet.

Trust the ability to extend yourself to others. The willingness to acknowledge need. Exchange telephone numbers addresses, and experiences. Intake and express yourselves. The person to your left and the person to your right should have the ability to imprint their best experiences, and begin a new history for you. It can only happen if you engage.

Clumping together into the same pack you were in before you arrived, creates a great Post it-like stack. It prevents the fun of a slinky - coiling, drooping, lolling around and having fun. It's fun to say hello to a person wearing a wepan nametag. It's fun to create the suffusion of body warmth through a hug. It's stimulating to see women punch through the heavens to the constellations.

Some of us have the boils of being battered, some of us have the boils of poverty, some of us have the boils of underemployment, some of the us have the boils of doubt and dissatisfaction, but, I tell you what. All these boils need is a trusting autoclaved prick and good draining. Trust can do it if you let someone else in. And so we meet to gather other trusting rivers of intelligence, to make a big ocean of change.

Our history has been fraught with pain for women. We are the producers of two-thirds of the world's food supply, yet we are also the representatives of eighty percent of the poverty in the world. We have built the bottoms of oceans through the escape of the middle passage, we have provided our beings to gas chambers, we have been raped and pillaged by countless oppressors, we have escaped tyranny, and yet we are still fleeing in fear from the tyranny of darkness in many of our cities. There is a rich history of sacrifice behind us. Lucille Clifton captures that history in her poem, "Miss Rosie."

"Miss Rosie, when I see you,  
you black, brown, beige, red,  
 yellow; white sack of a woman;  
 I say, when I see you Miss Rosie,  
 sittin', waitin' for your mind  
 like last week's groceries;  
 I say, when I see you  
 Miss Rosie in your old man's shoes,



with the big toe cut out;  
 I say when I see you Miss Rosie,  
 you who used to be the prettiest gal  
 in Georgia, used to be called Georgia Rose  
 when I see you Miss Rosie,  
 I realize through your destruction  
 I stand out."

We stand through her destruction, and we must now build through our genius. We must become a people-centered society reinvented by volunteerism. Refurbishing the schools through your visitations and participation and incubating families.

Five years ago I was serving as hostess for a reading award program in seattle. There were huge platters of cookies, and a wonderful punch, and I was encouraging the long line of people to pick up their cookies and move along.

One woman, with three children, caught my eye. Her children were cramming cookies into their mouth - as many as they could. While I watched, the mother picked up a tray of cookies, opened her purse, and dumped every single cookie into it. She looked at me and said, "We're hungry."

That simple statement haunted me.

Previously, my husband had made me co-chair of the education summit in Seattle. We brought together approximately 2000 citizens to talk about our schools, and these are the changes they thought should occur:

1. More people of color - teachers and administrators.
2. Multicultural curriculum.
3. Smaller class size.
4. More rigorous curriculum.
5. Increased salaries for teachers.
6. School buildings open in the evening for community activities.

The last item hit me. Why not have something in our schools which provided food and information regarding nutrition and literacy in the

evenings?

So we began having meals catered in, two Friday nights a month, to students and their families, and providing programs to help them prepare and serve nutritious meals at \$1.50 for a family of four. We started with 1,000 participants. Each school cafeteria is transformed to a table-clothed, china-laid environment. Each meal is hot and served family-style. This year we're helping 10,118 individuals from six elementary schools. We raised \$45,000 to begin the program. The two tributaries, of keeping school buildings open in the evening and incubating family life through learning and actual substance.

These two tributaries led 16 women (Suzanne Brainard was one of them) to raise \$30,000 per year toward funding this program. We should lead in service to the community.

You don't need to go away from your fields of math and science. Every year we celebrate Dr. Martin Luther King's birthday. We emphasize his civil and human rights spirit but often overlooked is his genius through scholarship. He was a graduate of Morehouse College at age 18.

My personal goal two years ago was to leverage the scholarship aspect of his presence on this place called Earth.

We established a Math and Science tribute to Dr. King to encourage girls and ethnic minority students to excel in math and science. We provided Sherita Ceasar, a mechanical engineer from Motorola, in Florida as key noter. We provided science and physics related games. We provided 18 to 25 years old students from M.E.S.A., and Women in Engineering to discuss their own experience in elementary and junior high schools; sharing how they overcame the shunning of peers, the debunking of their possibilities by school counselors.

We provided civil engineer Cass Tang who discussed her climb to professional excellence as a "C" student. Seed these kinds of programs in your own communities. Dedicate a program to the commander of the last space shuttle, Lt. Colonel Eileen Collins, to Mae Jemison, and to Casey Chawla, who is training to become the first asian-american woman in space. It takes just one person to seed the thought and a few hands to execute it.

We can not afford to allow our youngsters to wait until we get the B.S.'s, M.S.'s, and Ph.D.'s. A rapper of 13 and the record companies are already putting our youngsters into gangster rap, bitch, whore, slut bombardment.

It's not enough for us to do our personal best for ourselves - we must extend our efforts. (Pause)



Notice what's happened to the visual landscape. Women are now irrelevant. Ethnic minorities have been discounted, incarcerated, locked out.

Counteracting erasing the feminine effect. The angry white male. The assault on females. Someone flipped an alarm and everyone is dousing us with foam. Did you see a report stating that 51% of the Fortune 500 are headed by women? Did you see a report that stated that 51% of the college presidents in America are women? Did you see a report that 51% of the tenured faculty in institutions of higher education are women? Did the Farmer's Almanac report that 51% of the elected officials in America are women? Did a stockholder's report indicate that the highest paid CEO in America was a woman? In our labs, in space, at the poles, under the oceans, did we find that primary, secondary, tertiary investigators were woman? In the churches, did we find that church leadership was all women? Has the pope become a woman? Are 51% of the groups in jazz, rock, and punk music women? Did Women's Wear Daily report that 51% of the fashion designers who make shoes, clothes, and bags were women? When you flew here, were the pilots on the loudspeakers women?

When you opened the booklet on the hotel did the face that greeted you in print look like a female? No. No. No. No. So why are we hanging our heads in shame over affirmative action? Why are we worried about special privileges? Why are we silent-very few of us have gotten through the door through affirmative action. However, none of us are retained because of it. Look up. Become aware. You're in danger of becoming, op cit, ibid, an asterisk, or in parentheses.

We owe it to our girls and boys to create a balanced environment. We owe to ourselves to be known, celebrated and modeled.

Each one of us should adopt a school and go into every science and math program and guest speak, at least four times a year. Write your memories, write a book. The river of struggle and success should be extolled by each of you, so become an author.

I recently read a book on the Roosevelts. I felt the pain of Eleanor Roosevelt, trapped in a marriage of convenience and opportunity. A women who all biographers called plain. This woman went throughout our country. Deep into mine shafts, across the muck of sharecropper fields, to hospitals. She didn't smile for camera opportunities, she came back and crafted legislation and executive orders that were introduced and enacted by others, but authored through the craft of her genius.

Rossalyn Carter moved into the Oval Office, not to chat, but to

contribute. She, through her insightful mind, pushed the envelope on education. She encouraged all to reinforce the nation's schools. Barbara Bush took on literacy. Each child was her child. She didn't care about her size 16 or her turkey neck. She cared about extending humanity to children. Hilary Clinton walked into congressional chambers without aides, without papers, to plead the case for health care in America. She is the best example of the eraser effect on feminine spirit. We each should rally in front and beside and around her. To celebrate with suffusion her intelligence and grace.

Make no mistake, our legacy to our world is the ability to multiply and to celebrate our talents. To allow any political body, media voice, or neighbor to denigrate intelligence in womanhood puts us all at risk.

Leadership Jazz, a new book by Max Depree, offers this insight: beliefs and values are the foundations on which we build answers to the questions "Who matters and what matters?" Women must guard against twin enemies - Envy and Greed according to Max Depree.

Two of the seven deadly sins, were walking down a path one day when they were confronted by an angel. The angel offered one of them everything she could ask for. The other one would receive twice as much. Greed quickly asked Envy to choose first. After a little thought envy wished for one blind eye.

Finally, often we are each other's worst enemies because of envy and greed. Remember every cell has its DNA which makes us uniquely outstanding. We should not handicap each other to succeed.

We are not whispers on the wind - slated for oblivion. We are standing tall for all of humanity. We meet, we stand out and we succeed! Thank you.



