Transboundary Navigation:

Are You Ready?

QEM Mentoring Workshop, November 13, 2009 Victor McCrary, Ph.D. President, NOBCChE v.mccrary@comcast.net



Transboundary Navigation: What is it?

- Walking the line between the business and technical needs of the world?
- Globally focused vs. domestically focused?
- Retooling your skill sets every 2-3 years?
- Expanding your "club" memberships?

Successfully crossing & integrating among various distinct entities





Johns Hopkins Research Center's Legacy of Excellence 1944 1950 1960 1970 1980 1990 2000 2003 2007 Center of Excellence Human Language Technologies **Autonomous Systems** Big Bang theory paper 1948 **Dual-Combustion** Ramjet (DCR) **Quantum Information** 1949: Van Allen high altitude research 1995: Miniature TOF paves the way for the discovery Mass Spectrometer of the radiation belts **Securities Technologies** 1961 APL Transit III-B 2000: Homeland Protection Satellite R&D **N®BCChE**

Transboundary Navigation & the Global Economy: What has really changed in the past 20 years?





Q1. Has the world just "evolved" or is there a revolution underway?

Q2. Are changes on the horizon for NOBCCHE?

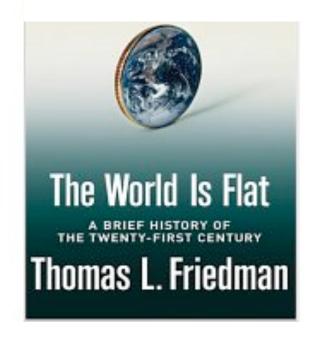
Q3. If "yes" to Q1 & Q2, how am I affected & how do I prepare myself?



Q1: Have things evolved or is there a revolution underway?

A1: Yes!! There are big changes underway....

- Technology has "flattened" the US economy and the way we do business
- Perfection and legacy not important drivers; "80% solutions" suffice
- "Old" businesses are creating value by doing "new" things with "unconventional" partners





The Age of the Gold Collar Worker

- Blue Collar Workers Unskilled to Union Labor fixed expertise (now many IT workers)
- White Collar Workers Management, services involving those with college to graduate training
- Gold Collar Workers Highly trained (not all are Ph.D.'s), but able to be effective in many different business environments – adaptable, agile, flexible, nimble



Q2: Are there changes on the horizon for "Minority Student's?

A2: Yes!! There are big changes underway....

- Value proposition of affinity organizations has shifted in the majority community's eyes
- Students' career expectations differ from NOBCCHE's basic tenets
- "Black" will have to evolve to embracing those who receive "Black treatment"



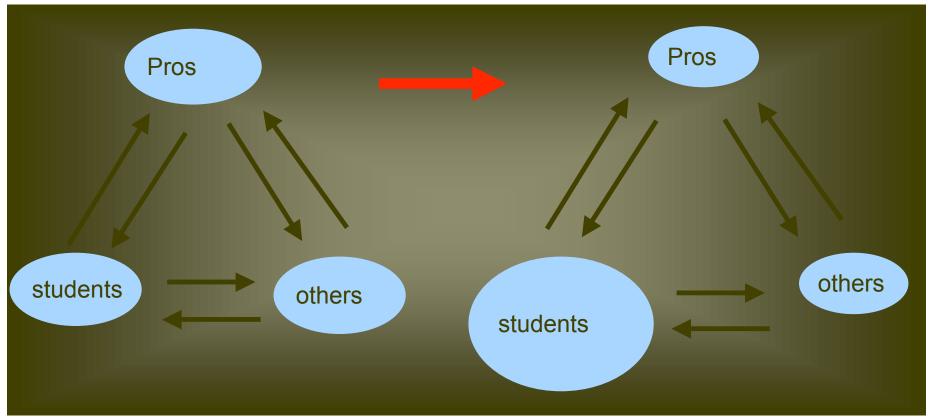


NOBCCHE's Model and the Global Economy

Founder's View

African-American Centric

Now





NOBCCHE's Model and the Global Economy

People of Color Centric Now **Future Pros Professionals** students others others students **Society of Hispanic Engineers Society of Women Enigneers Nigerian Society of Chemical Engineers**

Q3: If a revolution is underway, how am I affected and how do I prepare?

A3: Start now by expanding your professional network

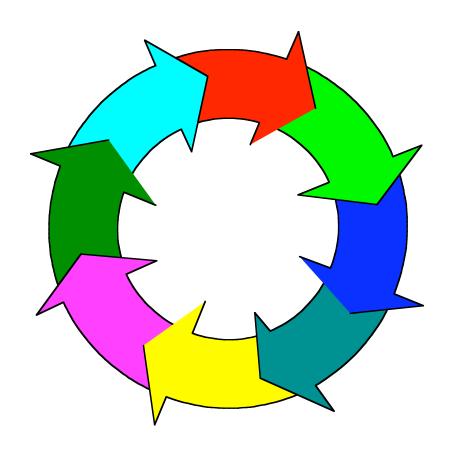
- Competition is intense and global; must know and relate to others across the globe
- The global economy rewards speed and innovation;
 must know and relate to a diverse group of thinkers
- Out-of-the-box thinking (transboundary navigation!) is a necessity; must know how to converge ideas, experiences, networks



The Theory of Clubs

Gold Collar Workers – people who get things done -- are members of many different "clubs".

Understanding clubs allows us to understand the constituencies we will interact with in order to increase our influence and power.--



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The Successful Person Manages Their "Club Memberships"

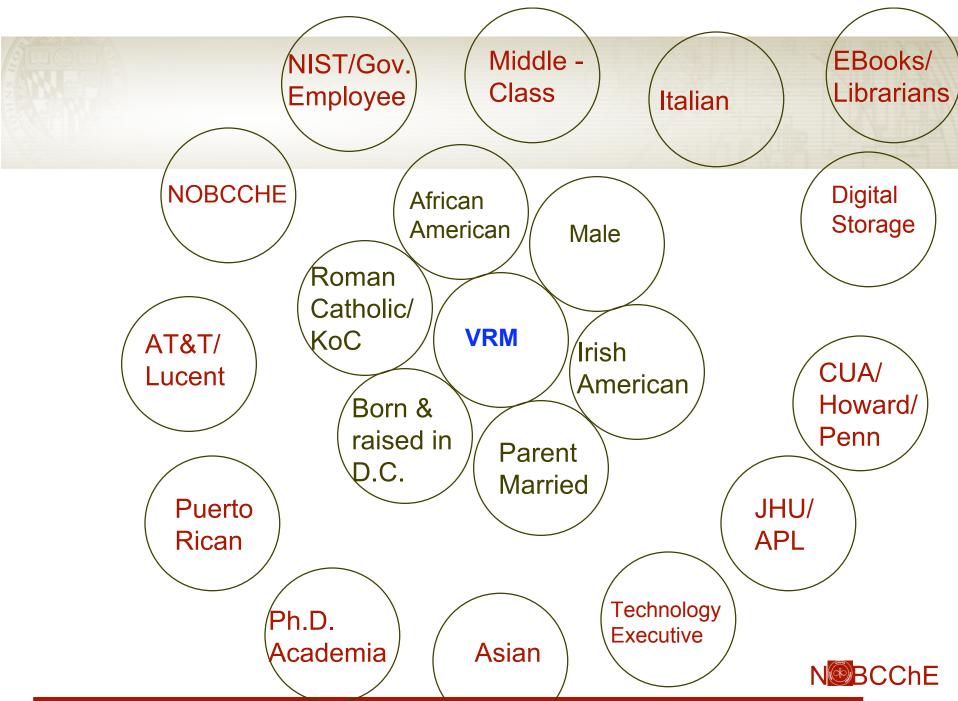
- Clubs can be formal institutions; e.g. Lions Club, professional societies IEEE, NOBCCHE, AMA,
- More often, it is the informal clubs that have long-term impact; e.g. a Catholic, Latina-American from the Bronx
- Club membership is based upon relationships; the deeper the relationship the more personal power is increased
- Multiple-club membership increases personal mobility
- Clubs are nodes from which networks spawn
- Access to club membership is a function of socio-economics, but not a barrier!!

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Club Rules: Increasing your Membership

- Primary Circle: Club memberships which are given from who you are - e.g. single, female, Hindu, born in Boston.
- Secondary Circle: Club memberships you establish by virtue of association & choice - e.g. B.S. in engineering, graduate of Howard University, member of NOBCCHE, married, middle class, spa membership, etc.





Club Rules (2): Increasing your Membership by Joining

SACNAS: www.sacnas.org

AISES: www.aises.org

NSBE: www.nsbe.org

NOBCChE: www.nobcche.org

NTA: www.ntaonline.org

SHPE: www.shpe.org

ACS: www.acs.org

IEEE: www.ieee.org

AIChE: www.aiche.org

APS: www.aps.org

SWE: www.swe.org

Sigma Xi: www.sigmaxi.org



"My Psychological Identity"



"My Professional Identity"



Dates to Remember; Opportunities not to Miss!

- NOBCChE Annual Conference, March 29-April 2, Atlanta, GA www.nobcche.org
- American Chemical Society, March 21-25, San Francisco, CA www.acs.org
- National Society of Black Engineers, March 31-April 4, Toronto
 - www.nsbe.org





Transboundary Navigation: Summary



Rosa Parks (1913-2005)
A successful transboundary navigator

- Yes, the world is changing, and the time to react has been compressed (you snooze you lose!!)
- Organizations that demonstrate value, are the ones which change dynamically (includes organisms, too!)
- Friedman concludes that the only way to thrive in the future is through diversity and investment in relationships (building and maintaining your networks!)

"Taking major risks, leads to major rewards"

No BCChE