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#### ABSTRACT

This paper focuses on career development for next waves of competent leaders and technically trained workers during e-globalization, one of the most difficult challenges advanced nations face. It contains four sections. First, the paper begins with a brief discussion about Vision Quest (VO) as a technique within strategic planning, focused primarily on economic and technological variables. Second, an example is briefly described that builds upon advances in science focused on quality of life and for which electronically networked communities for career development could be in an ideal preferred scenario. Third, brief comments are made about "bright light ideas" resulting from a preliminary analysis of "Preparing Tomorrow's Teacher To Use Technology" (PT3) projects and a few related activities. Fourth, conclusions with recommendations are presented for five topics: career development in formal education in traditional format; career development e-paradigms; VQ to create career development in electronically networked communities format; student technology assistants; and human resources development. (Contains 11 references.) (YLB)



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VISION QUEST THINKING FOR CREATING
CAREER DEVELOPMENT E-PARADIGMS VIA
ELECTRONIC NETWORKED COMMUNITIES:
BUILDING COMPETENCIES AND SKILLS
AT THE RATE OF IMAGINATION
FOR GLOBAL LEADERSHIP FOR
IMPROVING QUALITY OF LIFE

# VISION QUEST TEAM

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#### Abstract

VISION QUEST THINKING FOR CREATING CAREER DEVELOPMENT E-PARADIGMS VIA ELECTRONIC NETWORKED COMMUNITIES: BUILDING COMPETENCIES AND SKILLS AT THE RATE OF IMAGINATION FOR GLOBAL LEADERSHIP FOR IMPROVING QUALITY OF LIFE

> by Warren H. Groff groffw@nova.edu

Career Development (CD) for next waves of competent leaders and technically trained workers during e-globalization is one of the most difficult challenges advanced nations face. Apprenticeships were a dominant CD model in the first century of United States existence. A dominant CD model that evolved in the second century of U.S. maturation was in a formal education structure with three tracks (a) academic college preparatory, (b) vocational, and (c) general. Although institutionalization of CD had advantages, numerous limitations became evident as advances in Research and Development (R&D) in science and technology accelerated and applications via networks became widespread to all aspects of economy sectors and life.

Electronically Networked Communities (ENC) emerged in corporations and governmental sponsored units during the third century of maturation of the U.S. ENCs were initially created primarily by multinational corporations for defense R&D and are being adopted in a variety of service sectors of economies, including education and health, in advanced nations of the world. How will CD evolve in ENCs? How can collaborative planning be dedicated to create CD ENCs?

This paper contains four sections. First, the paper begins with a brief discussion about Vision Quest as a technique within strategic planning, focused primarily on economic and technological variables. Second, an example is briefly described that builds upon advances in science focused on Quality Of Life (QOL) and for which CD ENCs could be in an IDEAL preferred scenario. Third, brief comments are made about "bright light ideas" resulting from a preliminary analysis of "Preparing Tomorrows Teacher to Use Technology" (PT3) projects and a few related activities. The above-mentioned sections lead to a few conclusions with recommendations.



# VISION QUEST THINKING FOR CREATING CAREER DEVELOPMENT E-PARADIGMS VIA ELECTRONIC NETWORKED COMMUNITIES: BUILDING COMPETENCIES AND SKILLS AT THE RATE OF IMAGINATION FOR GLOBAL LEADERSHIP FOR IMPROVING QUALITY OF LIFE

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Numerous issues will be important in the years ahead. No issue, however, will be as important as the preparation of a critical mass of intellectual capital and high quality techforces to reengineer an economy and social infrastructure for a corridor, region, or state. Accelerating applications of complex technologies to business processes is fundamentally restructuring economies and society.

Electronic Networked Communities (ENCs) evolved from computer scientists and electronic engineers communicating electronically in the 1940s to offering of four-year degree programs online via modem and personal computer in 1984. ENCs evolved rapidly by business through Electronic Data Interchange (EDI) that paved the way for Electronic Commerce (EC) in multiple forms including B2B, B2C, and M-commerce. Corporate training online evolved to meet needs related to the conversion from paper-based to electronic formats involving multiple cultures, laws, standards, and technology. Certificates and degrees online evolved in corporate universities and were followed by certificates and degree programs online by colleges and consortia of providers.

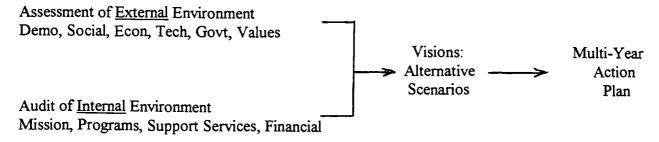
Although certificate and degree programs to prepare individuals for Information Technology (IT) traditional occupations such as database managers and network administrators have evolved in online formats and ENCs exist for continuing education, formal education in the United States has been slow to develop certificate and degree programs for emerging techforce roles, sometimes referred to IT related siblings. How do multinational corporations develop techforces to create a chain of suppliers to domestically manufacture goods using a standard technology infrastructure? How do some multinational corporations develop techforces to manage that knowledge and expand the chain of suppliers internationally with multiple standards to (a) penetrate new markets, (b) increase market share in countries where they already have a presence, and/or (c) reduce cost to gain competitive advantage as well as simply survive? What career development in-house programs and human resources development programs do corporations need to achieve goals?

Career development programs within formal education in the U.S. tend to acknowledge phases labeled (a) <u>awareness</u>, (b) <u>exploration</u>, and (c) <u>specialization with concentration options</u>. Career development (CD) programs, at their best in traditional format, should involve a broad range of service providers. Counselors and teachers must contribute to arousing awareness in students of clusters of occupations; they are essential in exploring with learners the emerging roles in ENCs. E-Commerce in all its variations, health informatics and medical informatics, and an array of new careers in biotechnology, the Human Genome Project, and other fields need CD programs that begin in elementary education and have e-paradigms as a logical choice as the preferred scenario. Knowledge Managers (KM) and Chief Information Officers (CIOs) are critical to viability in the private sector and equally essential at all levels of education in this communications revolution.



Strategic planning consists of phases of (a) analysis of external and internal environments, (b) visioning of alternative scenarios and selecting a preferred one, and (c) action plan development. External environment variables are demographic, social, economic, technological, governmental planning priorities, value changes, etc. A major shift in emphasis between planning systems in the 1940s and the 1950s occurred in federal government and the private sector. Planning systems in the early 1940s were developed to produce armaments for World War II, often with substitutes from a Research and Development (R&D) network because imported raw materials could not be obtained. The planning systems also included distribution of goods and supplies plus services to Asia and Europe. Planning systems in the early and mid 1950s continued to refine processes extending from R&D through distribution initially for rebuilding allied economies devastated during WWII and then to respond to the rise of Communism. The Sputniks in 1957 provided impetus for the applications of above-mentioned refinements to R&D Centers for education, for large scale curriculum development projects such as new maths and sciences, and other efforts. But, the basic model for planning strategically has not changed over the past decades. What has changed, however, is the need for establishments for planning strategically, to analyze economic and technological variables, and to effectively use technology for mission and vision attainment. The basic model for planning strategically is displayed in Figure 1.

Figure 1. BASIC STRATEGIC PLANNING MODEL



VISION QUEST evolved out of the "VISIONING" phase in the private sector. Primary focus was on extrapolation of historical data with analysis of converging and intersecting variables in a preferred scenario, setting of achievable goals and targets, and reengineering of decision processes and resources to increase the likelihood of achieving that vision. Applications in biometric, card, voice, and wireless technologies are reshaping life and work. What is needed to become aware of advances and applications of these technologies in sectors of the economy and aspects of society? How has biometrics evolved from finger print use to facial body parts recognition, like an eye iris, and how are the applications being used in aspects of life and work? How has voice recognition and verification evolved and how is it being used? How are advances in these technologies being applied in countries throughout the world to economy sectors for global competitive advantage? How are the technologies likely to evolve and converge or be integrated by 2005, 2010, or 2020? How can these insights become part of curriculum in formal and informal education and training? What content understandings and proficiency goals should be set for effective use of technology?





Examples of essential techforce needs will illustrate CD ENC VISION QUEST opportunities. The federal government of the U.S. supports 600+ R&D Centers that impact on Quality Of Life. Many of these assets are members of a Federal Laboratory Consortium for Technology Transfer.

A scientific foundation for a human genome initiative existed in the 1980s. Los Alamos National Laboratory, Lawrence Liverpool National Laboratory, plus institutes and other labs played a role in laying a foundation for the Department of Energy (DOE) to begin a genome project in 1986. The Human Genome Project (HGP) includes applications reaching into many areas of the economy including (a) clinical medicine, (b) agriculture and livestock, (c) industrial processes, (d) environmental biotechnology, and (e) DNA fingerprinting with many applications. An Oak Ridge National Laboratory (ORNL) Website is a major gateway to the science and societal issues emanating from HGP. (http://www.ornl/hgmis) Commercial opportunities to improve Quality Of Life (QOL) are enormous for the countries, regions, and states with a critical mass of intellectual capital and scientists to benefit from new knowledge. But, human resources development is a major problem. Betty K. Mansfield, editor of Human Genome News, states

...the most extreme shortages of scientists in the life sciences occurs at multidisciplinary interfaces – the primary shortage being at the interface of computing and biology. Because life science research is increasingly interdisciplinary, we are suffering from a shortage of scientists who are cross trained in a number of fields needed to move our understandings of the life sciences forward (Personal Communications, July 3, 2001).\*

A proposed DOE project, "Genomes to Life," has great potential for improving QOL.

The National Human Genome Research Institute (NHGRI) was established in 1989 to head the Human Genome Project for the National Institutes of Health (NIH), the federal government's primary agency for the support of biomedical research. The collective research of the 24 centers, divisions, and/or institutes of the NIH make up the largest biomedical research facility globally. The Division of Extramural Research (DER) contains units such as (a) Genome Informatics Program and (b) Genome Research Training & Career Development Program. The Division of Intramural Research (DIR) contains an Office of Technology Transfer. <a href="http://www.nhgri.nih.gov">http://www.nhgri.nih.gov</a>

A Biotechnology Industry Organization (BIO) in Washington, D.C. estimates that 1,200 biotech companies in the U.S. generated \$22.3 billion in revenues in 2000. Although considerably less than the \$500 billion of the pharmaceutical industry, biotech has grown rapidly thanks to the decoding of human genome. A BIO Education Program conducted at the International Biometric Convention on June 23-24, 2001, made extensive use of education information that can be mined from the National Biotechnology Information Facility (<a href="http://www.nbif.org">http://www.nbif.org</a>).

Above-mentioned examples, and many others, are a broad array of challenges for commercial global leadership opportunities if educational enterprise CD programs can be created that are (a) synchronized with corridor, regional, and state techforce needs and (b) world class in quality. A "corridor" example will illustrate the need for an educational enterprise approach to analysis of economic and technological variables that can be used to create visions and alternative scenarios as a basis for a Vision Quest strategies for CD in e-paradigm and traditional formats.



<sup>\*</sup> The author thanks Betty K. Mansfield for her contribution to this Vision Quest paper.

A Chicago - Green Bay Corridor contains many corporations with multinational strategies. Kimberly Clark, GE Medical Systems, Lands' End, and Boeing Web sites contain information to illustrate the need for Vision Quest collaboration for education modernization and reengineering. What competencies and skills are needed by Kimberly Clark to continue to produce personal care products, consumer tissue products, and away-from-home products in 38 countries and sell them in 150 countries to be competitive and to hold market share as well as to expand to new markets? What CD e-paradigms are needed to prepare domestic workforces to meet the techforce needs? What competencies and skills are needed by GE Medical Systems and consortium partners to continue to manufacture and service what is now being done and to expand, especially as other advanced nations around the world convert new knowledge from biotech and genome projects? An attached sheet of corporate Web sites indicates EC ENC opportunities in many critical fields.

An educational enterprise approach is needed to analyze economic and technological variables, extrapolate them into the future, and convert the information into knowledge that can be used in CD paradigms. Analysis of above-mentioned competency and skill expectations could be used to create "A Conceptual Framework for Advanced Specialization and Business Concentrations" and a framework for CD paradigms from early exploration through specialization with roles to be performed by Career Counseling Services as well as by "subject" providers (see attached sheet). Author interest in e-commerce in the early 1990s led to analysis of catalogs and Web sites to find courses and plans in EC in 1995-96 for presentations on "The Global Economy & E-Commerce." No mention about EC was found in a rather large sample of college and university Web sites but a great deal of information was obtained from corporations.

Educational institutions could use common categories for action plan goals and objectives such as (a) mission and vision attainment, (b) functional relationships, (c) qualitative improvements, (d) human resources development, and (e) fiscal resources development. Comments about categories are warranted. A mission should be a clear and concise statement about each business enterprise. Although a clear mission statement is necessary, it is insufficient. A clear and concise vision of a "business plan" is essential. Also, a clear and concise mission and vision is highly desirable for each functional unit. In addition, clear student learning outcomes (SLO) are critical institutional effectivess techniques and required by many professional and regional accreditation associations. SLOs are essential for all interdisciplinary studies programs, especially international studies, so that a program yields competencies and skills related to purposeful outcomes, not merely a mosaic of learning activities convenient to consumers and/or providers in content and delivery formats.

A "Mission and Vision Attainment" goal and action plan statement could be developed for CD in an e-paradigm ENC format as indicated an another attached sheet. Action plan curriculum content "globalization" ideas could include e-learning units about Africa that are appropriate both culturally and developmentally for Africans and African American learners, for Asia for Asian Americans, for Central and South America for Hispanic Americans, etc.

"Private Sector Analysis" could include databases and networks used by above-mentioned corporations and many others to make market decisions and provide for CD within corporations. Succession planning has existed for decades, both at the chief executive officer and for VQ needs. Genuine partnerships between businesses and education could yield many mutual benefits.



# **CHICAGO - GREEN BAY CORRIDOR**

#### **OUR VISION**

"It is our vision to see ... brands on store shelves in every country."

Kimberly Clark is a world leader in personal care products, consumer tissue products, and away-from-home products. Kimberly Clark manufactures in 20 states in the U.S. plus 38 countries and territories and sells in over 150 countries. Access <a href="http://www.kimberly-clark.com">http://www.kimberly-clark.com</a> and click on "Who We Are." Kimberly Clark has plants in Anyang, Kimcheon, and Taejon in South Korea.

#### **OUR VISION**

"We aspire to be the world's premier provider of medical electronic equipment and Systems used for clinical diagnosis, monitoring, and patient information integration."

GE Medical Systems is defining leadership in the field.

Access <a href="http://www.ge.com/medical/">http://www.ge.com/medical/</a>

GE Medical Systems is partnering with Abbott Laboratories, Baxter International, Johnson & Johnson, and Medtronics, Inc. in forming an Internet-based marketplace that will allow hospitals and other health care facilities to link directly to suppliers.

Abbott Laboratories <a href="http://www.abbott.com">http://www.abbott.com</a>
Baxter International <a href="http://www.baxter.com">http://www.baxter.com</a>

Johnson & Johnson <a href="http://www.johnsonjohnson.com">http://www.johnsonjohnson.com</a>
Medtronics <a href="http://www.medtronic.com">http://www.medtronic.com</a>

Johnson & Johnson is the world's most comprehensive and broadly-based manufacturer of health care products via 190 operating companies in 51 countries, selling products in 175+ countries. How can browsing and mining Johnson & Johnson Web sites contribute to career development? Johnson & Johnson Medical Taiwan (http://www.jjmt.com.tw) and Johnson & Johnson Taiwan, Ltd. (http://www.jmt.com.tw) provide a full range of products and services for health care.

#### LANDS' END

Lands' End is expanding full-service e-commerce Web sites. Web sites were launched in the United Kingdon (http://www.landsend.co.uk), Germany (http://www.landsend.de), and Japan (http://www.landsend.co.jp) in November, 1999 and in Ireland (http://www.landsend.ie), France (http://www.fr.landsend.com) and Italy (http://www.landsend.it) in the fall of 2000. Imagine competencies and skills to do B2B, B2C, and M-Commerce globally.

# **VISION 2016**

# People working together as a global enterprise for aerospace leadership.

Core competencies are detailed customer knowledge and focus, large-scale systems integration, and lean enterprise. Values are leadership, integrity, quality, customer satisfaction, people working together, a diverse and involved team, good corporate citizenship, and shareholder value. http://www.boeing.com/companyoffices.aboutus/mission/index.html



#### A Conceptual Framework for Advanced Specialization and Business Concentrations

#### Career Development: Specialization and Business Concentrations

Chief Information Officer (CIO)	and Knowledge	Manager (KM) in	Education/Training
Accessing	Analyzing	Redistributing	Critiquing/Using
Information	Information	Information	Knowledge

#### Career Counseling Services

Curriculum Development Programs

Early Specialization Business Market Analysis (MA)	Advanced Specialization CIOs and KMs in Businesses MA in Asia Pacific, Trend Analysis	<u>Concentrations</u> KM in a Business MA in North Korea
Manufacturing Chains Distribution - Logistics Retail, Resellor	Air, Land, and Sea (ALS) to Asia	ALS to Inchon
Services	Financial, Government, Health Care	Health Informatics (HI)
Wholesale Customer Relations Mg		eCRM in Health Care

# Career Development: Exploration to Specialization

Chief Information Officer (CIO)	and Knowledge	Manager (KM) in	Education/Training
Accessing	Analyzing	Redistributing	Critiquing/Using
Information	Information	Information	Knowledge

Career Counseling Services

#### Curriculum Development Programs

Grade in Assessment, Counseling Discipline Subject Centered Traditional Context

"School" Guidance, Placement English Social Studies Arts Math Nat. Sciences Tech

- 11-12 Advanced Specialization
- 9-10 Early Specialization
- 7-8 Advanced Exploration
- 4-5 Early Exploration



# A CONCEPTUAL FRAMEWORK FOR A VISION QUEST SCENARIO AND ACTION PLAN

<u>2001-2002</u> <u>2002-2003</u> <u>2003-2004</u> <u>2004-2005</u>

# A. Mission & Vision Attainment

- 1. University
- 2. School
- 3. Programs
- 4. Services

# B. Functional Relationships

- 1. Communities
- 2. Corporations
- 3. Chambers of Commerce
- 4. Educational
- 5. Health Care Establishments
- 6. Human and Social Services

# C. Qualitative Improvements

- 1. Curriculum
  - a. Content Formats and Standards
  - b. Delivery Format Systems
  - c. Assessment/Evaluation Formats
- 2. Advising and Counseling
  - a. Career Life Planning
- 3. Enrollment Management
  - a. Recruitment
  - b. Retention

# D. Human Resources Development

- 1. Learning Centered Culture
  - a. Career Goals & Objectives
  - b. Learning Style Preferences
  - c. Research & Scholarship
- 2. Development Phases

#### E. Fiscal Resource Development

- 1. Capital Funding
- 2. Operating Resources
- 3. Alumni
  - a. Annual Fund
  - b. Major Solicitation
- 4. Applications (Private & Public)

BOTTOM LINE

IMPROVED QUALITY OF LIFE (QOL) FOR MORE PEOPLE



# A CONCEPTUAL FRAMEWORK FOR A VISION QUEST SCENARIO AND ACTION PLAN

<u>2001-2002</u> <u>2002-2003</u> <u>2003-2004</u> <u>2004-2005</u>

#### A. Mission & Vision Attainment

## Mission, Vision, GOAL, and Action Plan

It is our goal to design and perfect a CAREER DEVELOPMENT system that can be modeled in AAL and traditional formats that will be qualitatively superior to ad hoc services currently in use. Awareness will include developmentally appropriate learning units about biometric, card, voice, wireless, and other technologies of the digital era that can be used in the early years and modified for use by individuals who have special needs. Exploration in application of the above-mentioned technologies can enhance critical thinking competencies and problem solving skills as electronic literacy skill of accessing, browsing, and mining are pursued in a collaborative learning community involving culturally diverse learners with differing "intake" learning preferences and use styles. Specialization could involve mining Web sites with applications of above-mentioned technologies in a career cluster or a concentration such as engineering of M-commerce for an economy sector.

#### Globalization Vision Quest

Africa
Asia Pacific
Central & South America
European Union

## Private Sector Analysis

#### Milwaukee Public Schools (MPS)

- Department of Technology, PT3 and Professional Support Portal
- 2. Bradley Technology & Trade HS
- 3. Careers in Technology Model

#### Post-secondary Education

- 1. University of Marquette, PT3
- University of Wisconsin System
   UW Milwaukee
   Information & Media Technology
   Student Technology Services
   MPS PT3
   UW Oshkosh, PT3
   UW River Falls, PT3

**BOTTOM LINE** 

IMPROVED QUALITY OF LIFE (QOL) FOR MORE PEOPLE



#### **BRIGHT LIGHT IDEAS**

A few "bright light ideas" emerged from a preliminary analysis of "Preparing Tomorrow's Teacher to Use Technology" (PT3) and other projects. Milwaukee Public Schools (MPS) is creating a Professional Support Portal (PSP). The PSP is intended to assist and interface with several groups of individuals (a) Pre-Service Educators; (b) Initial Educators, 1-5 years; (c) Professional Educators, beyond 5 years; (d) Master Educators, highest level; (e) School Leaders, and (f) groups in the community -- business, city, higher education, and others.

Educator preparation, recruitment, and retention are major concerns of schools nationally, especially in urban settings. Over 10% of the MPS teaching force resigns annually, with 7% leaving for reasons other than retirement. Approximately 37% of the new teachers hired in MPS leave within the first five years. Induction and continuing professional development for educators new to MPS can be made effective via efficient use of technology in anytime anywhere formats. Teachers are prepared to teach one or more subjects and that content and know-how must be adjusted to fit MPS learners and standards. Similarly, counseling and guidance services providers are prepared to perform a range of functions. Neither groups are prepared extensively, if at all, to guide learners through the stages of CD awareness, exploration, and specialization as discussed in this paper. Robert W. Nelson, Director of Technology at MPS, leads a team professionals in providing the technological infrastructure to evolve into an ENC hub for CD e-paradigms.

http://www.milwaukee.k12.wi.us

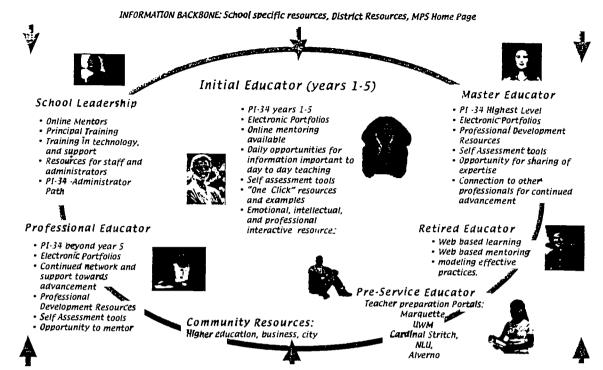
A second bright light is accomplishments of children and youth in Cooperative Educational Service Area #1, 44 districts in Milwaukee, Ozaukee, Racine, Washington, and Waukesha Counties. Wisconsin Web Fair completed its fifth year. Children in 4<sup>th</sup> and 5<sup>th</sup> grades at Roosevelt Elementary School in the Wauwatosa School District swept 1st, 2<sup>nd</sup>, and 3<sup>rd</sup> place. Although many of the entries are outstanding, "How To Grow A Better Brain" presented at a board meeting last year remains this author's #1. <a href="http://www.webfair.wisc.edu/">http://www.webfair.wisc.edu/</a> <a href="http://www.wauwatose.k12.wi.us/">http://www.wauwatose.k12.wi.us/</a> <a href="http://library.thinkquest.org/J002391">http://library.thinkquest.org/J002391</a>

In addition, children enrolled in Germantown schools regularly place in a Destination ImagiNation contest. <a href="http://www.destinationimagination.org/">http://www.destinationimagination.org/</a> The purpose of highlighting these bright lights is to suggest that the competencies and skills that children develop for competitions, some global, could also be focused on awareness and exploration of CD in critical areas.

A third bright light is "Student Technology Services" (STS) run by the Information & Media Technologies (IMT) Department at the University of Wisconsin - Milwaukee (UWM). STS is run extensively by students enrolled in an array of programs in business, education, engineering, and letters and sciences. Joseph D. Douglas, Chief Information Officer and Director of IMT, evolved the STS program at other universities and has perfected STS for replication beyond UWM. STS employees range from "novice," individuals who want to learn more about how to effectively use technology, to "proficient," graduate students who can engineer a next generation of software or who can apply e-commerce software to economy sectors across multiple hardware platforms. STS employees can elect an array of courses from basic through advanced plus difficulty and are paid for doing so. STS employees can complete elective courses in an ad hoc or planned manner. http://www.uwm.edu/IMT/STS



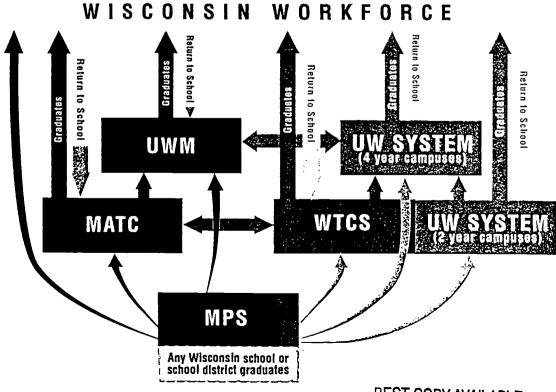
# MPS Professional Support Portal



Curriculum Design Assistant Student Assessment Sample Instructional Practice Video Professional Development Day to Day Curriculum SIGs Community Resources Calendar Special Education State and National Resources

Harvard Graduate School Projects

# STUDENT TECHNOLOGY SERVICES





**BEST COPY AVAILABLE** 

# CAREER DEVELOPMENT E-PARADIGMS FOR DIGITAL DIVIDENDS

#### STUDENT TECHNOLOGY SERVICES

#### Information and Media Technologies (IMT) Division

University of Wisconsin - Milwaukee

http://www.uwm.edu/IMT/STS

#### TRAINING CURRICULUM

Basic Intermediate Advanced Advanced Plus
Browser Team Building Portfolio Dev. E-Commerce

Classroom Assignments

Campus Computer Labs

Classroom Support Hotline

Data Center

Digital Desktop

Distance Education Operations

Equipment & Media Distribution

Help Desk

**Human Resources** 

**Networking Operations** 

Photo Services

Printing Browser Team Building Portfolio Dev. E-Commerce

Professional Development

Programming
Public Relations
Short Courses

Tech Solutions - Web Design

Tech Solutions - Web Course

Telephone Services

Video Production

Visual Design

Web Design

**BOTTOM LINE** 

CHIEF INFORMATION OFFICER (CIO) and KNOWLEDGE MANAGER (KM) ROLES (Business, Education, Engineering, Government, Health & Human Services, etc.)

IMPROVED QUALITY OF LIFE via EFFECTIVE & EFFICIENT USE OF TECHNOLOGY



A fourth bright light is the maturation of "The Milwaukee Idea," a collaborative approach to engage people in discussions about "community" in a broad sense – a future preferred scenario with genuine partnerships for improved Quality Of Life by initially focusing on "First Ideas" in economic and educational development plus environment. Nancy L. Zimpher, Chancellor of UWM, has a lead role in this community initiative. <a href="http://www.uwm.edu/MilwaukeeIdea/">http://www.uwm.edu/MilwaukeeIdea/</a> A few "First Ideas" could contribute greatly to CD in ENC format. "Partnerships for Education" contains three areas of focus (a) preparing students for college, (b) preparing teachers and (c) integrating technology into education programs. A "Global Passport Project" contains four areas of focus (a) expanding global opportunities, (b) promoting international understandings, (c) promoting cross-cultural understandings, and (d) improving competencies and proficiencies necessary in global communities. A University of Wisconsin System Institute for Global Studies is a collaborative initiative involving all UW institutions and state, national and international partners. A conceptual framework for activities and goals for the above-mentioned initiatives is as follows:

# A CONCEPTUAL FRAMEWORK FOR ACTION PLAN GOALS AND OBJECTIVES

<u>2001-2002</u> <u>2002-2003</u> <u>2003-</u>2004 2004-2005

# Partnerships for Education

- 1. Preparing students for college
- 2. Preparing teachers
- 3. Integrating technology into education programs

#### Global Passport Project

- 1. Expanding global opportunities
- 2. Promoting international understandings
- 3. Promoting cross-cultural understandings
- 4. Improving competencies and proficiencies necessary in global communities.

#### **UWS Institute for Global Studies**

- 1. Creation of new knowledge
- 2. Global workforce development
- 3. International education initiatives
- 4. Business, government, and community partnership outreach programs

About 200 professionals belong to the Taiwanese American Association in Milwaukee and a Korean association has a similar membership. Many of these individuals, and others from throughout Asia Pacific, are either employees or graduate students in the various higher education institutions throughout the area and the state. Korea and Taiwan want assistance in economic and education development (Groff, 1999). Taiwan also wants help with environmental issues Collectively, above-mentioned initiatives hold great potential for an articulated CD ENC in several professional fields and multiple cultures with different customs, laws, standards, and technology.



#### CONCLUSIONS with RECOMMENDATIONS

Conclusions with recommendations are presented for five topics. The five topics are (a) CD in formal education in traditional format, (b) CD e-paradigms, (c) VQ to create a CD in ENC format, (d) student technology assistants, and (e) human resources development.

First, CD in formal education must be upgraded in campus based traditional formats. Although effective use of technology by teachers at all levels for all subjects is necessary, it is insufficient. CD to be effective must have a high priority and focus on competencies and skills that are currently needed to meet techforce needs and an understanding of competencies that will be needed.

Second, CD e-paradigms are emerging in an ad hoc manner via learning communities. A few children and youth are experiencing globalization and effective use of technology via competitions with peers in other advanced nations. A few beneficiaries browse and mine ideas in an ad hoc maner that could become a career mosaic. But, the activity should be available to other learners who are less fortunate and could be available in a planned mode.

Third, although planning systems have been used in a variety of ways, no evidence could be found that VQ was used for CD. Scientists working on cutting edge research projects in fields that are essential and could collaborate to create CD conceptual frameworks so educators (counselors, curriculum developers, and teachers) could co-create culturally and developmentally appropriate learning units in Anytime Anywhere Learning (AAL) format.

Fourth, each wave of students adopts to increasingly complex technology more quickly than adults. Thus, student technology assistants in early years could be used in peer assistance roles. Above-mentioned conceptual frameworks with Web sites could be used by children and youth in group computing strategies during awareness, exploration, and specialization CD stages.

Fifth, Electronic ClassRooms (ECRs) have been used effectively in graduate programs for over a decade. Graduate education is the most likely level at which educators (counselors, curriculum developers, and teachers, can add CD competencies and skills to their entry level preparation. Critical Thinking Competencies and Problem Solving Skills were taught to doctoral students via ECRs in the mid 1990s along with Environmental Scanning and Trend Analysis with a focus on ecommerce and the evolution of information technology toward user centered computing via ECRs. PT3 should make effective use of ECRs for aspects of CD ENC.

#### **ATTAINMENT**

Statements of Purpose are necessary, But something must eventually be done to prove that attainment is possible.

Burl N. Osburn, "The Editor Has The Last Word," The Industrial Arts Teacher, Nov-Dec, 1961, p. 26.



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