

BCNU Nursing Practice Conference  
May 5, 2010 1100 – 1200 Plenary  
Ways of Knowing, Ways of Doing

# Harnessing Nursing Informatics for Voice, Action, and Networking

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# Overview

- Nursing Informatics
  - an evolving Science
  - an evolving Art
- Nursing Informatics and Voice
- Nursing Informatics and Action
- Nursing Informatics and Networking

# Nursing Informatics is....

“...a specialty that integrates **nursing science, computer science, and information science** to manage and communicate **data, information, and knowledge** in nursing practice. Nursing informatics facilitates the integration of data, information and knowledge to **support** patients, nurses and other providers in their **decision-making** in all roles and settings. This support is accomplished through the use of **information structures, information processes, and information technology**”

(Staggers & Bagley-Thompson, 2002, p. 262).



# The goal of Nursing Informatics...

... is to improve the health of populations, communities, families, and individuals by **optimizing information management and communication**. This includes the use of information and technology in the **direct provision of care**, in establishing effective **administrative systems**, in managing and delivering **educational experiences**, in supporting lifelong learning, and in supporting **nursing research**”

(Canadian Nursing Informatics Association, 2003, p. 1).

# Nursing Informatics is critical to Health Care

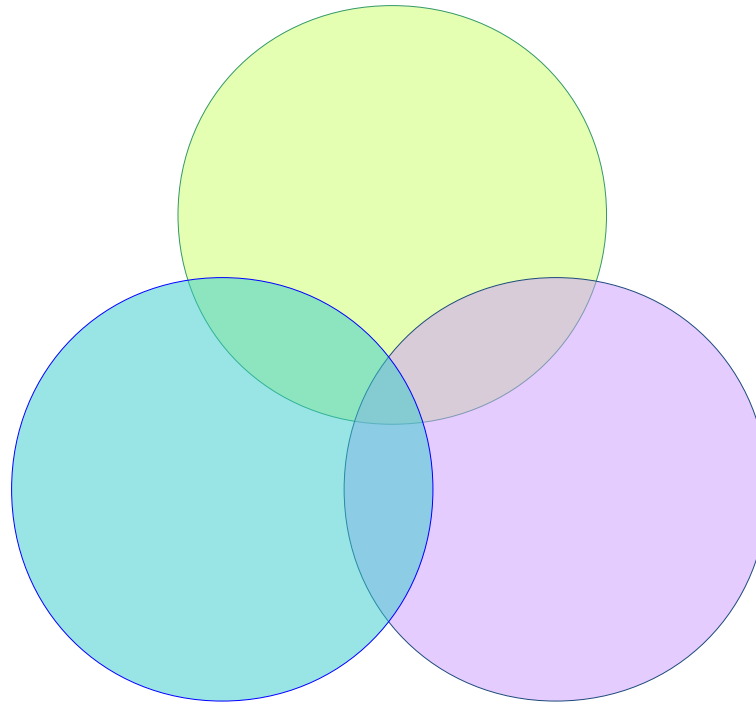
- Nurses comprise the largest group of health providers
- Nurses spend the most time in direct care of clients = a critical position to influence Health Informatics



# NURSING INFORMATICS TRIAD

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**NURSING SCIENCE**

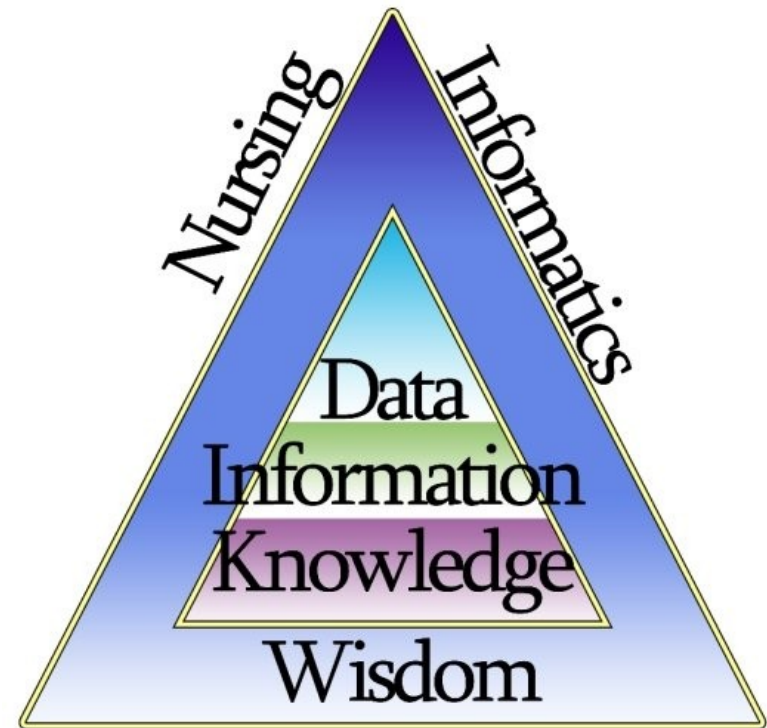


**COMPUTER SCIENCE**

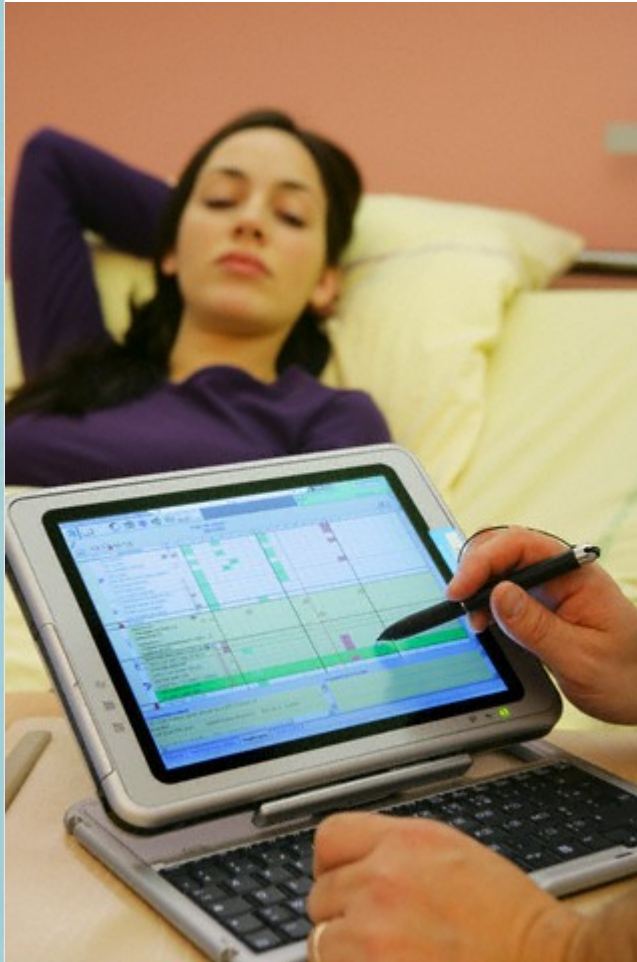
**INFORMATION SCIENCE**

# DATA – INFORMATION - KNOWLEDGE

- Health and nursing **information science** is the study of how health care **data** is acquired, communicated, stored, and managed, and how it is processed into **information** and **knowledge**. The experienced nurse does this with **wisdom**.



# Information systems....



....used in health care include the people, structures, processes, and manual as well as automated tools that collect, store, interpret, transform, and report practice and management information.



# Nursing knowledge....

....is derived from the practice of nursing science. It represents the rules, relationships, and experiences by which data becomes information. Using their knowledge, nurses synthesize information so that the patterns, relationships, and themes are identified,



# Nursing wisdom....

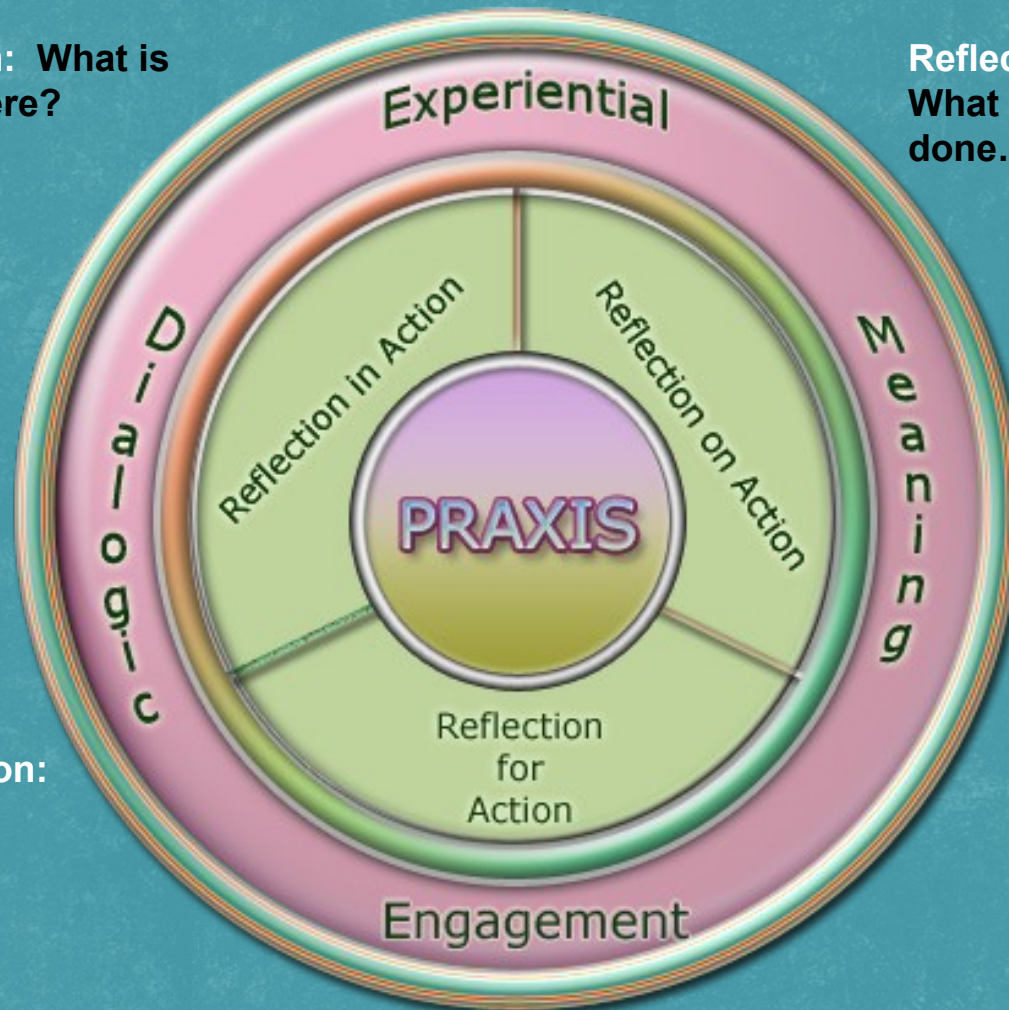
- ....is knowing when and how to use knowledge. It develops through praxis, and requires knowledge, values, and nursing experience coupled with reflection on one's own practice.



# Praxis Principles

**Reflection in Action:** What is really happening here?

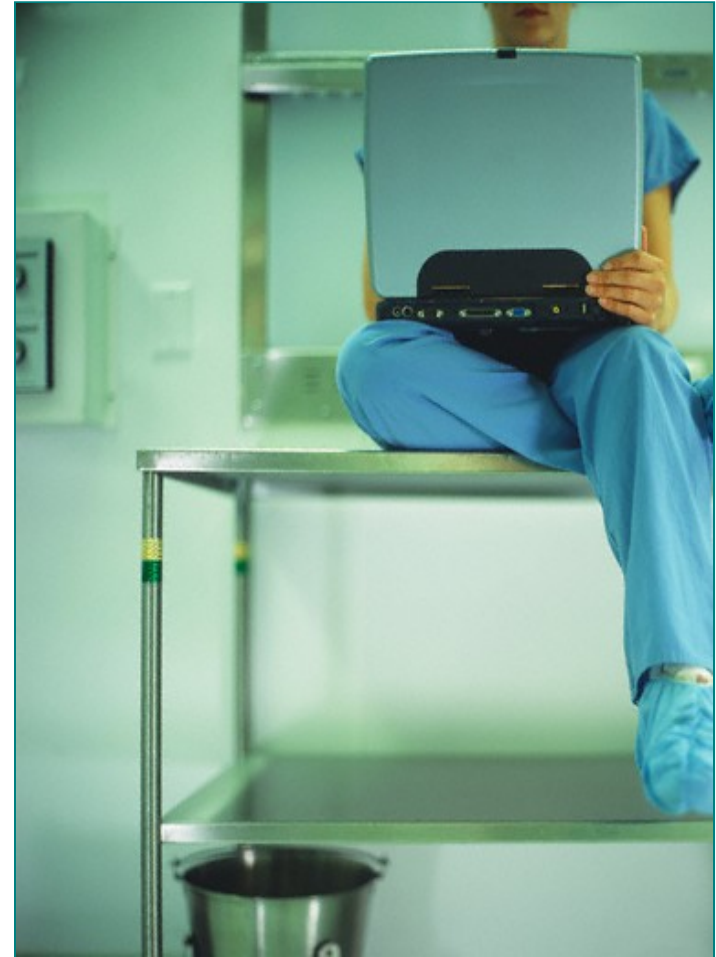
**Reflection on Action:** What is done, will be done... and more?



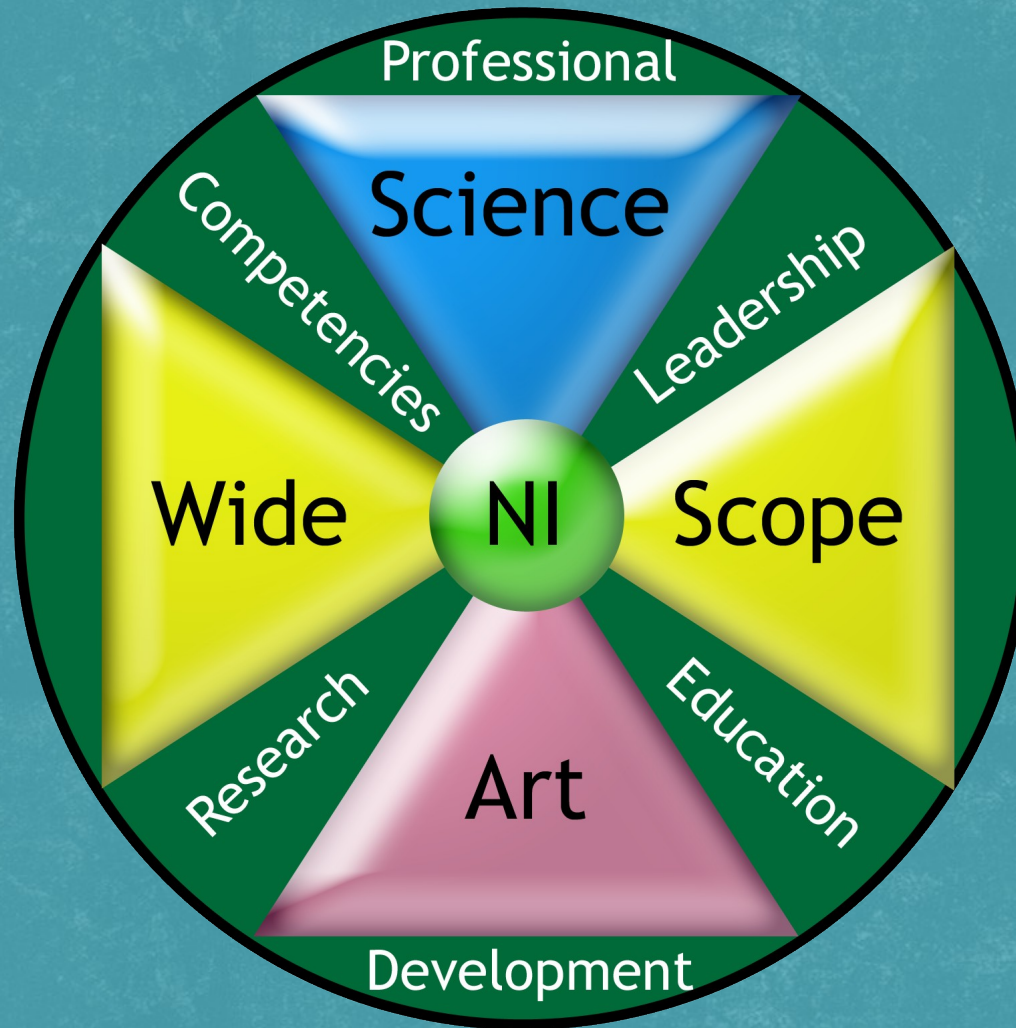
**Reflection for Action:**  
The process and product of praxis applied actively

# Privacy, Security, Confidentiality

- Protected by Policies & Procedures
- Security refers to technological, organizational, or administrative processes designed to protect data systems from unwarranted access, disclosures, modification, or destruction.



# Evolving the Field



NNursing Informatics 101 Model



# The Art of Nursing Informatics

## CARING AND USE OF TECHNOLOGY

- The relationship between computer literacy, technological competence and a nurse's ability to care is congruent for quality nursing practice.
- Computer literacy represents a proactive response to technology which enhances caring in nursing





# Holistic assessment & planning

The world of the screen is fast becoming a constant reality within health care – how do nurses counteract the potential distancing and rupturing of relations with clients that can occur?

How can nurses use technologies in ways that actually allow more embodied time and presence with clients?

# Aesthetics & Presence

- What do we need to do differently when nurses must transpose their presence, empathy and professionalism through the circuitry and visual displays of a ICT machine?
- The nurse is still “present” and perceived as situated within the health care interaction by the client, albeit through electronic means.



# How are Presence & Caring Conveyed?



# The Art of Caring with NI

Caring and Presence occur  
whether using Informatics via:

Hospital Information Systems

whether - hand or palm held

- desktops

- bedside

Computerized Med Systems

Electronic Health Records

Tele-nursing

E-health

Client education systems



# ◀ Nursing Informatics and Voice

“While there is a general awareness of informatics in nursing, it is specifically related to the use of the Internet and other technologies such as databases for research and does not encompass a broad based understanding of the full scope of nursing informatics or its impact on nursing care” (CNIA, 2003, p. 22).



# Canadian NI Voice...



The Voice of  
Nursing Informatics  
in Canada!

MAIN SITEMAP INTRO ABOUT BOARD JOIN! EVENTS JOURNAL RESOURCES CONTACT

## EXPLORE

SITEMAP

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EXEC BOARD

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CJNI JOURNAL

RESOURCES

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RESEARCH

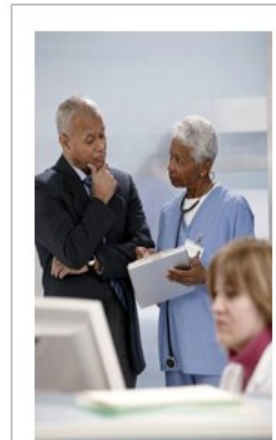
## About the Canadian Nursing Informatics Association

### Mission

To be the voice for Nursing Informatics in Canada. The CNIA is the culmination of efforts to catalyze the emergence of a new national association of nurse informaticians.

### Goals

- To provide nursing leadership for the development of Nursing/Health informatics in Canada.
- To establish national networking opportunities for nurse informaticians.
- To facilitate informatics educational opportunities for all nurses in Canada.
- To engage in international nursing informatics initiatives.
- To act as a nursing advisory group in matters of nursing and health informatics.
- To expand awareness of Nursing Informatics to all nurses and the



## CJNI JOURNAL

The Mission of the CJNI is to provide a peer-reviewed venue for members of the CNIA, and other researchers who work with Nursing Informatics to disseminate their research, essays, reviews, presentations, multimedia and other digital publishable materials on a global scale. In the coming

<http://cnia.ca>



## E-health as an example of Voice

- E-health is a client-centered World Wide Web-based network where clients and health care providers collaborate through ICT mediums to research, seek, manage, deliver, refer, arrange, and consult with others about health related information and concerns

# E-health Case Scenario

- Janet, a 43 year old mother and business owner was diagnosed with rheumatoid arthritis six months ago. She sought medical treatment for her condition but has experienced little relief with conventional treatment. She begins to seek further information from other sources beyond her family doctor, including internet resources. Recently she decided to initiate an online support and information group to explore treatments and experiences with other people with arthritis.



# Questions to Ask...



- ❖ What roles could nurses adopt to support Janet in her endeavor?
- ❖ What could nurses offer this new community of clients that they could not organize themselves?
- ❖ What ethical considerations come to mind when reviewing this scenario?





# Nursing Roles in E-health

- health advisors
- Internet guides to help clients select reliable information resources
- support group liaisons
- web information providers
- Nurses need to be involved in the design and implementation of E-health portals and programs that provide the best possible experience for health care clients.



# Client Education Roles for Nurses

- Facilitative partnership with client
- Enablers, supporting self care and autonomy
- Coaching, informing and explaining
- Helping clients to generate alternatives
- Guiding clients to think issues through
- Validating the client's reality.
- Nursing Informatics can help to personalize and customize client teaching



# Nursing Informatics and Action

- Canadian nurses are expected to:
    - “be aware of broader health concerns such as environmental pollution, violation of human rights, world hunger, homelessness, violence, etc. and are encouraged to the extent possible in their personal circumstances to work individually as citizens or collectively for policies and procedures to bring about social change, keeping in mind the needs of future generations”
- (Canadian Nurses Association, 2002 p.15).

# SOCIAL DETERMINANTS OF HEALTH



- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment/Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices and Coping Skills
- Healthy Child Development
- Biology and Genetic Endowment
- Health Services
- Gender
- Culture

# Nursing Informatics can help....

As the W.H.O.'s Commission on the Social Determinants of Health (2005) asked,

**“What narrative will capture the imaginations, feelings, intellect and will of political decision-makers and the broader public and inspire them to action?” (p.44)**

**This is a critical point for nurses to consider in the context of engaging in social justice and societal change to promote health and well-being in all Canadians.**

# Nurse Activism

A REPOSITORY OF RESOURCES, THEORY, AND TOOLS FOR THE ENGAGED NURSE

Take  
a  
Stand!



MAIN

ROLE

MEDIA

ORGANIZE

ADVOCATE

REFORM

POLITICS

BLOG

LINKS

CONTACT

## Nurses are

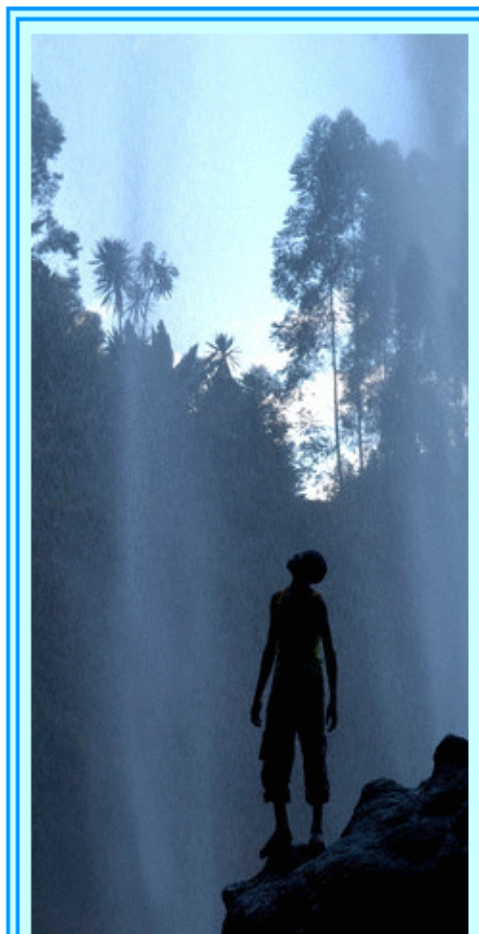
## Activists!

They just need support, knowledge & tools!

This site has been created to offer theory, resources, examples, research, news, and tools to help nurses unite, organize, and participate in activist initiatives that contribute to the health, well-being, peace, and harmony of humanity and all of Planet Earth.

## Media is Key!

The advent of the Internet and other communicative and creative technologies has



### READ THE NURSE ACTIVISM BLOG

NEWS, IDEAS & VIEWS

There are so many causes and events worth noting in our global landscape. This blog will present highlights of initiatives that deserve attention and participation by nurses and society at large. **Visit our Blog to read about the latest entries. ...**

Awareness is the first step, reflection and planning the second step, action and raising a critical mass is the third.

### NURSING ACTIVIST RESEARCH

JOIN THE MOVEMENT!

Nursing Research related to social justice and activism to promote global health and well-being for all are active foci of this site. Nursing researchers and nursing students are engaging in study and praxis to create this site.



# Nurse Activism



<http://nurse-activism.com/>

The site has been created to offer theory, resources, examples, research, news, and tools to help nurses unite, organize, and participate in activist initiatives that contribute to the health, well-being, peace, and harmony of humanity and all of Planet Earth. This site includes student contributions and research assistance, intended to provide an online repository of resources and theory to support Nurses in honing activist abilities.

# EcoNurse

MAIN ABOUT ISSUES HEALTH CARE RESEARCH MEDIA BLOG LINKS CONTACT

## EXPLORE

MAIN

ABOUT

ISSUES

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## Dedicated to Catalyzing Ecological Awareness

*"What narrative will capture the imaginations, feelings, intellect and will of political decision-makers and the broader public and inspire them to action?" (WHO Commission on Social Determinants of Health, 2005, p. 44).*

"The preservation and improvement of the human environment has become increasingly important for man's survival and well-being. The vastness and urgency of the task place on every individual and every professional group the responsibility to participate in the efforts to safeguard man's environment, to conserve the world's resources, to study how their use affects man, and how adverse effects can be avoided." (International Council of Nurses, The Nurse's Role in Safeguarding the Human Environment. Position Statement. 1986. Geneva, Switzerland).

This web site has been created to echo these directives, and provide resources and information about how nurses can influence environmental policies, practices,



## Introduction

EcoNurse is an activist, research-based site intended to catalyze human awareness of ecological issues and solutions.

## Research

Nursing Research related to ecology and the preservation of the environment as it relates to societal health is an active focus of this site. Nursing researchers and nursing students have engaged in study and praxis to create this thought provoking site.



# EcoNurse

<http://econurse.org/> (initiated in 2007)

EcoNurse is an activist, research-based site intended to catalyze human awareness of ecological issues and solutions. This web site has been created to provide resources and information about how nurses can influence environmental policies, practices, and potential threats to the health of humans and other species on this planet.





# Activist Organization



- Activist Organization that can effectively guide the Co-Creation process for activist and advocacy learning experiences in education.
- The involved participants need to engage in **dialogue, brainstorming, reflection, praxis, and action planning.**

# Media for Activism

As most people are aware, mass media can be used as a vehicle for both social change AND for maintaining the status quo.



# Media for Activism

<b>MEDIA</b>	<b>ACTIVITIES</b>
Viral Flash	Inform & Disseminate
Email Action Alerts	Petitions
Web Campaigns	Lobbying
Social Media Web 2.0	Coalitions
Blogs, Wikis	Build Community
Web Action Kits	Advocacy

Prime Example: BCNU Campaigns and Issues

[http://www.bcnu.org/campaigns\\_issues/default.htm](http://www.bcnu.org/campaigns_issues/default.htm)



# Action Media Choices



- **Internet campaigns**
- **Viral Flash movies**
- **Multimedia Presentations**
- **E-mail Action Alerts**
- **Web Television Productions**
- **Radio shows (Internet, Air)**
- **Music, Art, Exhibits**
- **Internet Journalism**
- **Web sites,**
- **Blogs, Wikis**
- **Video productions**
- **Brochures, pamphlets, newsletters, e-zines**
- **Broadcasted rallies, lobbying**
- **Social media**



# Supporting Proactive Initiatives

“Indeed, these are changing times in health care, but they are also exciting ones if nursing chooses to be proactive in its response to these changes at the individual and organizational levels. Creativity will be needed to provide new solutions to problems. Let us look at these changes as opportunities to influence decisions in our organizations. Will you choose to be reactive or proactive?” (Simon, 1999, p. 1).



# Nursing Informatics & Networking

- **Client focused networks** - telenursing, e-health, and client support networks
- **Work related networks** - virtual work and virtual social networks
- **Learning and research networks** - communities of practice



# Networking Prediction



“As the Net generation grows in influence, the trend will be toward networks, not hierarchies, toward open collaboration rather than authority; toward consensus rather than arbitrary edict. The communication support provided by networks and information systems will also alter patterns of social interaction within a health care organization. This technology provides a medium for greater accessibility to shared information and support for rich interpersonal exchange and collaboration across departmental boundaries” (Richards, 2000, p. 10).

Nurses make  
Global

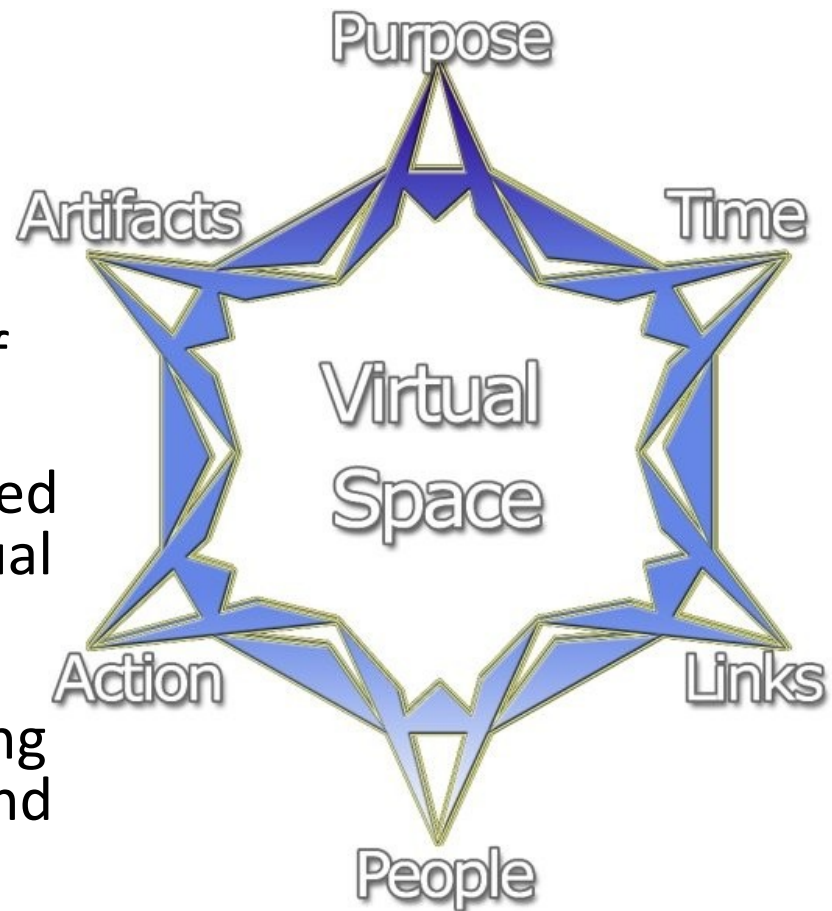


Connections  
with Informatics



# Virtual Social Networks

- Basically, nursing-related virtual social networks provide a cyberspace for nurses to make contacts, share information and ideas, and build a sense of community.
- Social technologies are used to provide a dynamic virtual environment, and often provide communicative capabilities through posting tools like blogs, forums, and wikis; email



# Sharing through Networking

“Electronic media do more than just expand access to vast bodies of information. They also serve as a convenient vehicle for building virtual social networks for creating shared knowledge through collaborative learning and problem solving. Cross pollination of ideas through worldwide connectivity can boost creativity synergistically in the co-construction of knowledge” (Bandura, 2002, p. 4).





# FOR FURTHER INFORMATION...

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- For more information on applying ICT and Nursing Informatics in education and practice visit Nursing Informatics at <http://nursing-informatics.com>

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