

# Information and Communication Technology

**P.K. Abeytunga, Ph.D.**

Vice-President and Director General



**Canadian Centre for Occupational Health and Safety**

Canadian Centre for Occupational Health and Safety / Centre canadien d'hygiène et de sécurité au travail

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# Information and Communication Technology (ICT)



Knowledge Transfer as a Powerful Strategy  
for Creating Healthy Workplaces



Canadian Centre for  
Occupational Health and Safety

Information and Communication Technology  
IOHA 2005

# Changing Workplaces

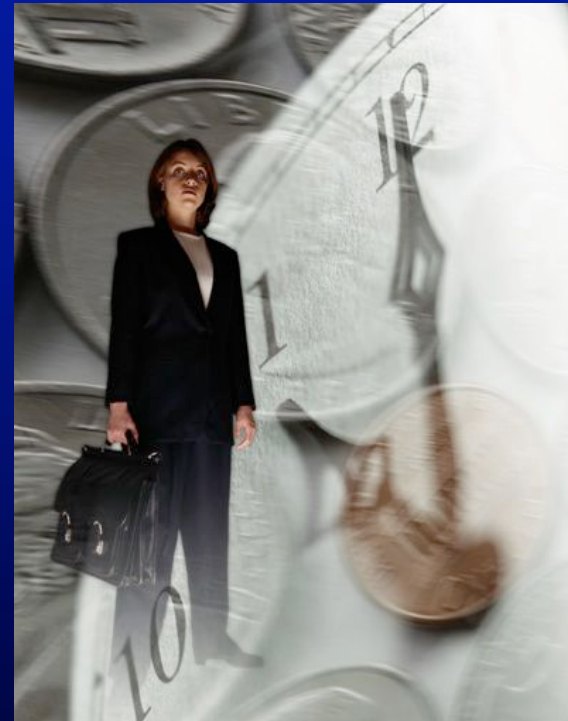
We are seeing drastic changes in:

- ▶ Workplace environments
- ▶ Work methods, processes, equipment and technologies
- ▶ Workplace structure and job content



# Growing Economic Pressure

- ▶ Pressure to reduce costs, increase productivity
- ▶ Leading to dramatic changes in organizations and how they do business



Along with these changes, the pattern of work-related health and safety issues is also changing and concerns spread far beyond traditional considerations.



# The Role of ICT

- ▶ Development and implementation of methods and tools for research
- ▶ Strengthening of hazard identification and risk assessment
- ▶ Improvement of diagnosis, evaluation, prevention and solutions



*cont'd*



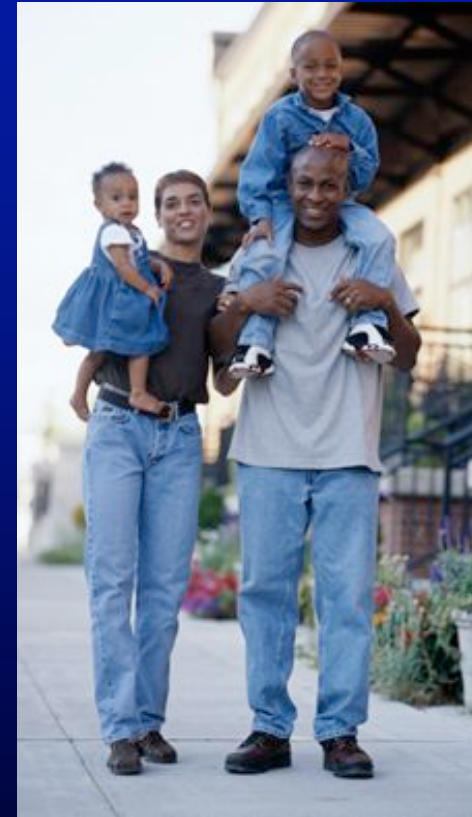
- ▶ Creating, shaping, capturing and sharing the corpus of global knowledge
- ▶ Collection and recording of data and their analysis and reporting
- ▶ Facilitating communication and collaboration among various parties, and
- ▶ Enhancing teaching and training





# Healthy Workplaces

- ▶ Work environment, employee health and organizational productivity are intimately linked
- ▶ Improving the total health (mental, physical and psychosocial) of the individual also enhances the health of the:
  - Enterprise
  - Family
  - Community
  - Economy



# A Comprehensive Approach

Essential to achieving a healthy workplace

- ▶ Encompasses occupational health and safety practices, job design, organizational systems, Human Resources management practices, life-style considerations, and the culture of the workplace
- ▶ Improves the total quality of working life



# Workers & Managers Are Positioned Best

Workers and line managers (workplace participants) are best positioned to develop and implement a comprehensive system according to the specific needs and circumstances of a particular enterprise.



# Knowledge



Knowledge from experience and research occurring around the globe is able to provide a greater understanding of the wide variety of many real issues, whether arising from physical, environmental, job-content, organizational, psychosocial or personal risk factors



# Knowledge Transfer as a Strategy



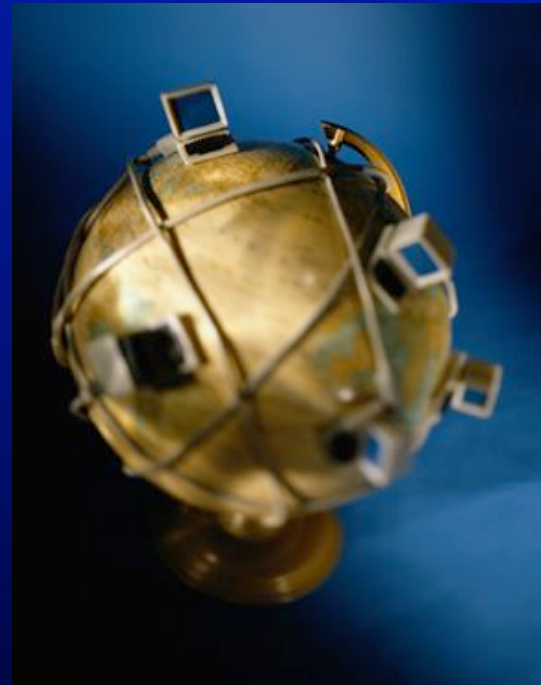
Leads to:

- ▶ Positive attitudes
  - ▶ Clear understanding of concerns and issues and how best to address them
  - ▶ Informed decisions
  - ▶ Appropriate actions
  - ▶ Active involvement and cooperation of all those concerned, and
- ▶ Understanding and consensus among the parties involved



# Knowledge Transfer

- ▶ Tapping information from diverse, reliable sources around the world
- ▶ Delivering this information:
  - To those active in advancing healthy workplaces
  - In a form that will benefit them the most



# Information and Communications Technology

Provides the only practical and feasible means to keep abreast of evolving, accumulated knowledge, and to effectively transfer it to workplace participants, ensuring:

- ▶ Instant access to specific information needed
- ▶ In the form in which they need it



# Internet and Intranet Technology



Has enabled formidable possibilities to create, harness, share, receive and utilize knowledge through:

- ▶ Connectivity, simplicity and commonality
- ▶ Handling of unstructured text and graphic forms
- ▶ Accelerating the speed of knowledge acquisition, transformation, distribution and utilization





# Technologies and Tools in Action



- ▶ Content management systems
- ▶ Search engines
- ▶ Knowledge taxonomies
- ▶ On-line communities of practice
- ▶ Enterprise portals
- ▶ E-learning
- ▶ Wireless tools



# Content Management Systems

Include features for:

- ▶ Authoring templates
- ▶ Maintaining integrity of web pages and links
- ▶ Periodical review
- ▶ Archiving
- ▶ Version control
- ▶ Indexing
- ▶ Authorized access



# Search Systems

- ▶ Diverse and increasingly sophisticated
- ▶ Use a variety of techniques
- ▶ Designed to find only the relevant information and, to avoid missing any relevant information



# Knowledge Taxonomies

To fit the goals and strategies, reflecting:

- ▶ the needs
- ▶ behaviours
- ▶ tasks, and
- ▶ vocabulary of the users.



# On-line Communities of Practice

A powerful tool for knowledge exchange and retention, consisting of:

- ▶ Helping through peer-to-peer sharing of insights
- ▶ Best practice sharing through sharing of documents
- ▶ Knowledge sharing through connecting of mentors and,
- ▶ Innovation through cross-boundary idea generation



# Enterprise Portals



Help create the “on-demand” workplace to meet the specific needs of workplace participants:

- ▶ Customized to individual employee needs
- ▶ A knowledge delivery channel usable anytime, anyplace and on any device
- ▶ A single point of interaction and coordination



# E-learning



Blending of e-learning with other knowledge transfer techniques to:

- ▶ Create the learning organization
- ▶ Anticipate training needs based on enterprise goals and deliver the necessary courses
- ▶ Do while learning and learn while doing



# Wireless Tools

- ▶ A fast-growing trend in workforce connectivity, bringing required knowledge directly to mobile workers via cell phones, PDAs, Wireless Local Area Networks (WLANs) and Radio Frequency Identification (RFI) tags





- ▶ Mobilizing the workforce through delivering information and knowledge regardless of where, when and how they work



# In Conclusion

While information and communications technology provides the means for effective and efficient knowledge transfer, it should be used wisely to achieve healthy workplaces by doing the right things right.



# Thank You

**Dr. P.K. Abeytunga**  
Vice-President and Director General



**Canadian Centre for Occupational Health and Safety**  
Hamilton, Ontario, Canada

Phone: **905-572-2981** Ext. 4537 Fax: **905-572-4419**

E-mail: [abey@ccohs.ca](mailto:abey@ccohs.ca)

Web Site: [www.ccohs.ca](http://www.ccohs.ca)



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