

Health and wellness for all:
We must meet our children's
expectations

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Canada Research Chair in eHealth Innovation

Rose Family Chair in Supportive Care

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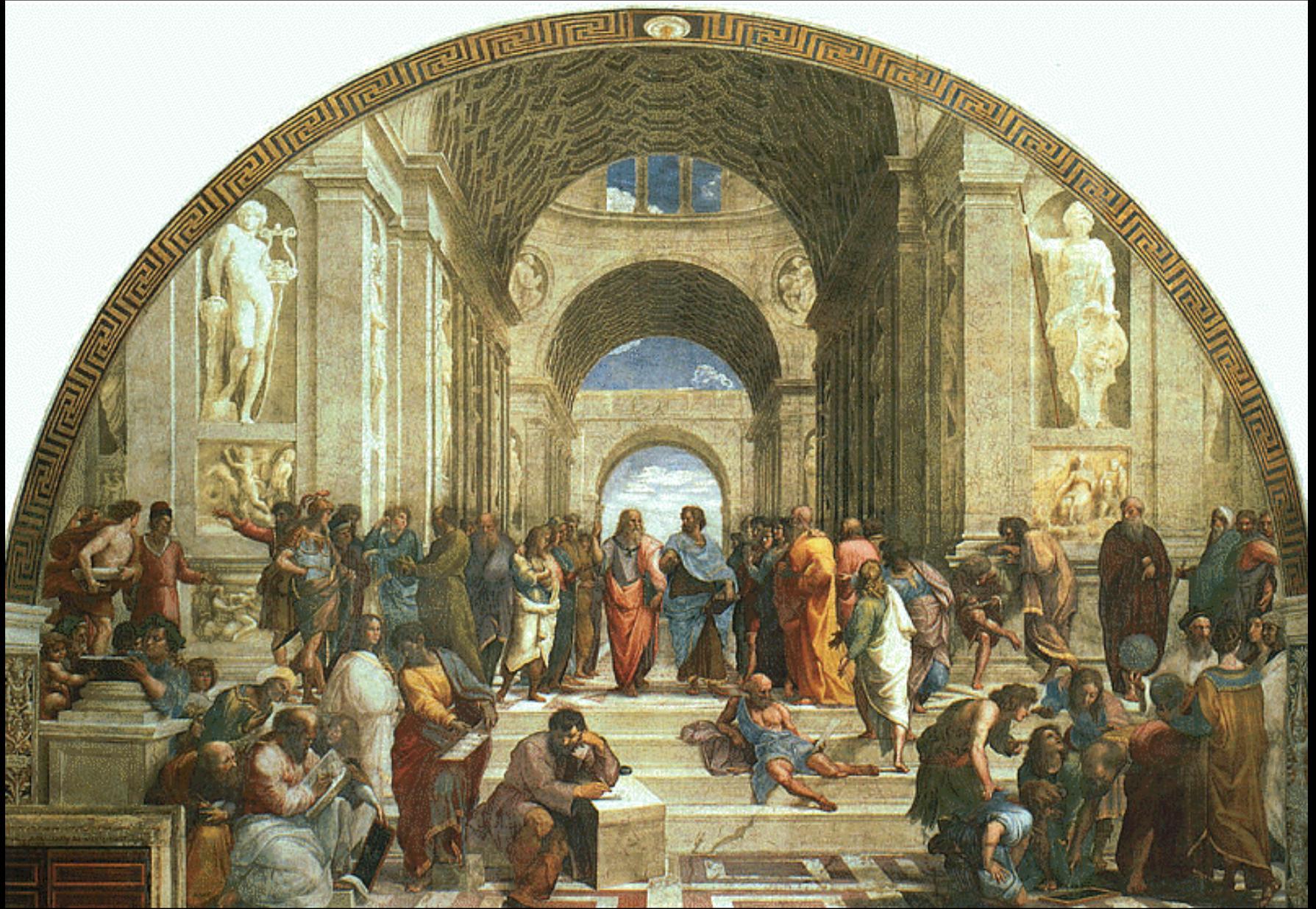
University Health Network and University of Toronto



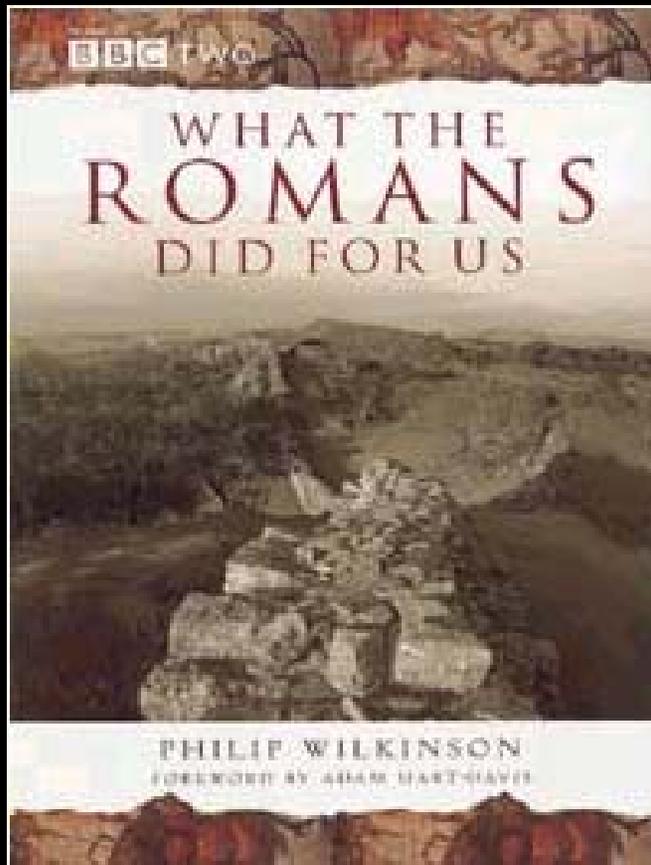
The Phoenicians?



The Greeks?



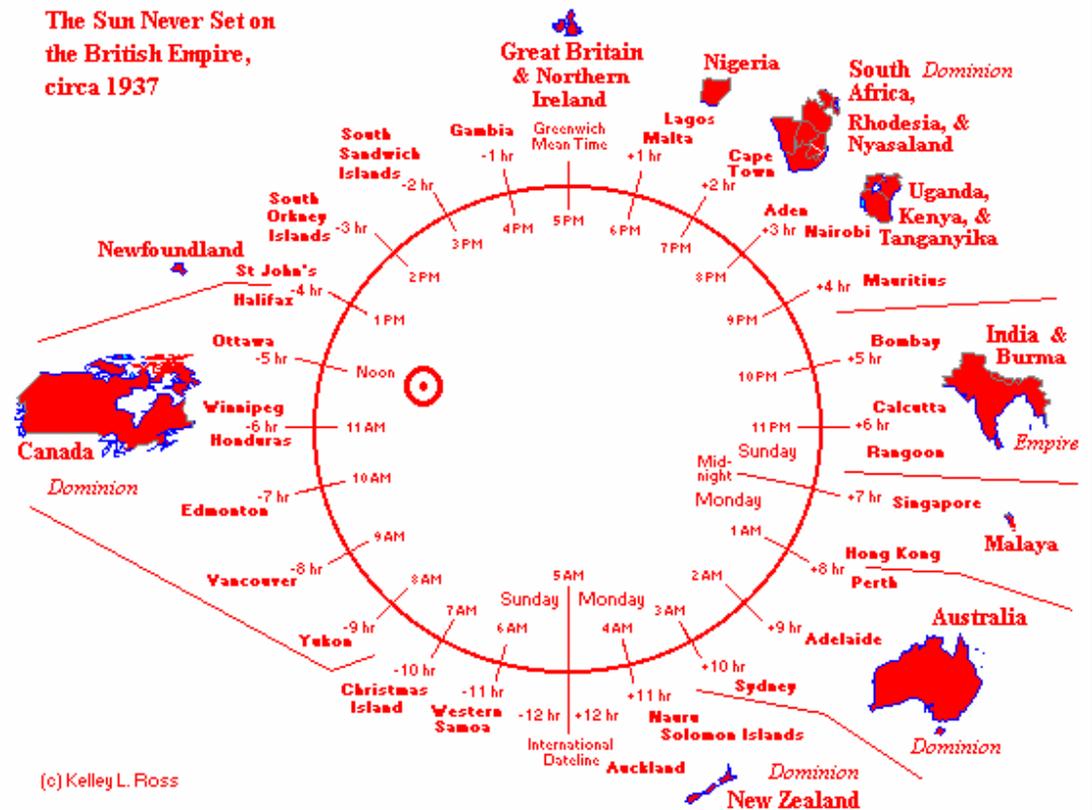
The Romans?



The British?



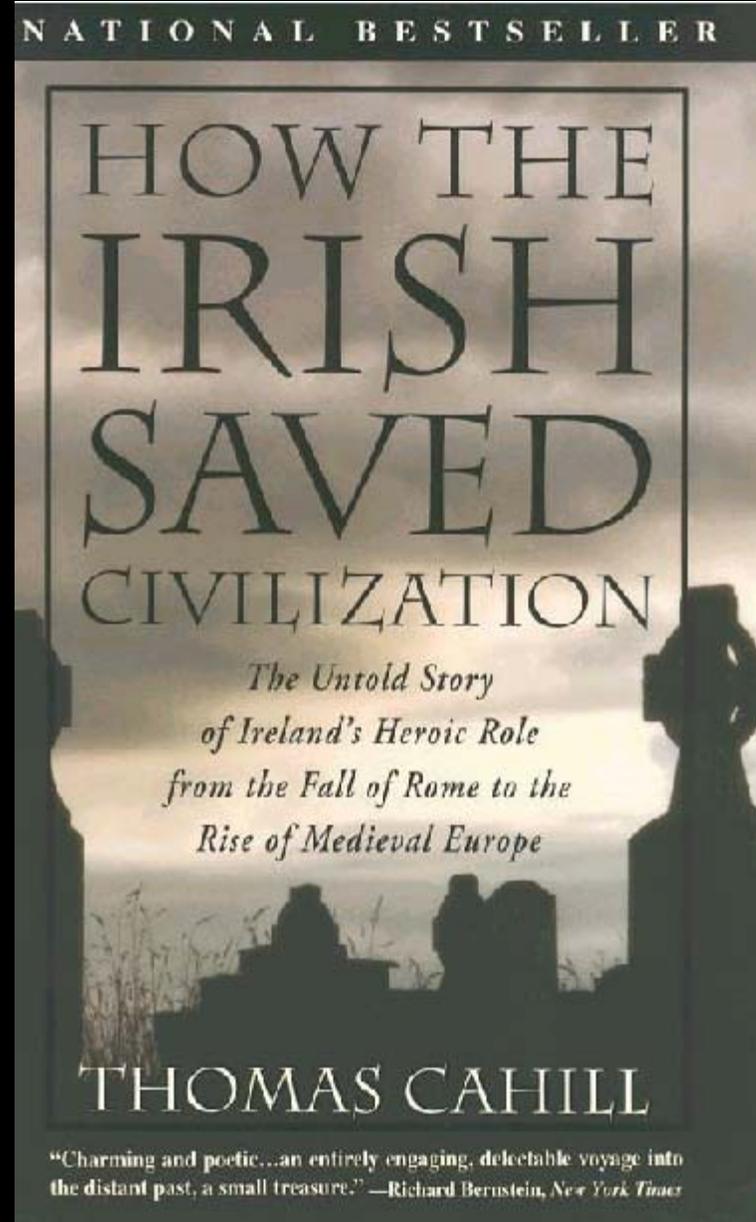
The Sun Never Set on the British Empire, circa 1937



The Americans?



Even the Irish
claim to have
influenced the
world



How about the Canadians?

"O Canada" was proclaimed Canada's national anthem on July 1, 1980, 100 years after it was first sung on June 24, 1880. The music was composed by Calixa Lavallée, a well-known composer; French lyrics to accompany the music were written by Sir Adolphe-Basile Routhier. The song gained steadily in popularity. Many English versions have appeared over the years. The version on which the official English lyrics are based was written in 1908 by Mr. Justice Robert Stanley Weir. The official English version includes changes recommended in 1968 by a Special Joint Committee of the Senate and House of Commons. The French lyrics remain unaltered. Many people think of Calixa Lavallée as an obscure music teacher who dashed off a patriotic song in a moment of inspiration. The truth is quite different. Lavallée was, in fact, known as "Canada's national musician" and it was on this account that he was asked to compose the music for a poem written by Judge Adolphe-Basile Routhier. The occasion was the "Congrès national des Canadiens-Français" in 1880, which was being held at the same time as the St. Jean-Baptiste Day celebrations. There had been some thought of holding a competition for a national hymn to have its first performance on St. Jean-Baptiste Day, June 24, but by January the committee in charge decided there was not enough time, so the Lieutenant Governor of Quebec, the Honourable Théodore Robitaille, commissioned Judge Routhier to write a hymn and Lavallée to compose the tune. Lavallée made a number of drafts before the tune we know was greeted with enthusiasm by his musical friends. It is said that in the excitement of success Lavallée rushed to show his music to the Lieutenant Governor without even stopping to sign the manuscript. The first performance took place on June 24, 1880 at a banquet in the "Pavillon des Patineurs" in Quebec City as the climax of a "Mosaïque sur des airs populaires canadiens" arranged by Joseph Vézina, a prominent composer and bandmaster. Although this first performance of "O Canada" with Routhier's French words was well received on the evening, it does not seem to have made a lasting impression at that time. Arthur Lavigne, a Quebec musician and music dealer, published it without copyright but there was no rush to reprint. Lavallée's obit in 1881 doesn't mention it among his accomplishments, nor does a biography of Judge Routhier published in 1875. French Canada is represented in the 1887 edition of the teni v rity of Toronto song book by "Vive la canadienne", "A la claire fontaine" and "un canadien errant". English Canada in general probably first heard "O Canada" when school children sang it when the Duke and Duchess of Cornwall (later King George V and Queen Mary) toured Canada in 1901. Five years later Whaley and Royce in Toronto published the music with the French text and a translation into English made by Dr. Thomas Deaford Richardson, a Toronto doctor. The Mendelssohn Choir used the Richardson lyrics in one of their performances about this time and Judge Routhier and the French press complimented the author. Calixa Lavallée was a "canadien errant", a man who left his country for greener fields, but who nevertheless loved Canada and returned to it, returned with a reputation well earned in the United States and France to become the "national musician" of Canada. He was, in his time, a composer operettas, at least one symphony, various occasional pieces and songs; he was a pianist and organist of considerable note and he was a teacher who wanted to found the first Canadian Conservatory. The famous Canadian choral conductor Augustus Stephen told of him: "I became acquainted with Lavallée in the 30's of the last century, when I was in Boston as a student of music, and he impressed me as a man of extraordinary ability - not merely as a clever executant of the piano, and not merely as an adroit deviser of pretty melodies and sensuous harmonies, but as a genuinely creative artist, a pure musical genius". Calixa Lavallée was born in Verchères, Canada East, on December 23, 1842, the son of Augustin Lavallée, a woodcutter and blacksmith, who became an instrument repairman, bandleader and music teacher. Later when the family moved to St-Hyacinthe, the father worked for the famous organ-builder Joseph Casavant and led the townband. Calixa showed talent early and played the organ in the cathedral at the age

What
would
happen if
Canada did
not exist?

CANADIAN EDITION May 26, 2003

TIME

WOULD ANYONE
NOTICE IF CANADA

DISAPPEARED?

The nation's
influence in the
world is shrinking.
How—and why—it
should be rebuilt.

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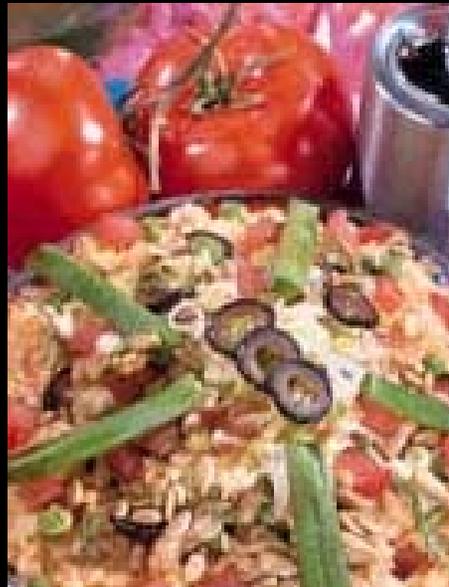
The world would be safer...



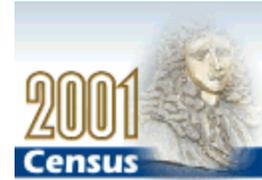
This is not what we expected!



We are a salad!



A world within a country...



- Canada has just over 30 million people
- The population represents over 200 ethnic groups
- One of every 5 Canadians was born outside this country
- One of every 7 people in Canada belongs to a visible minority
- Only one third of people in visible minorities have been born in Canada.

Our world is changing...

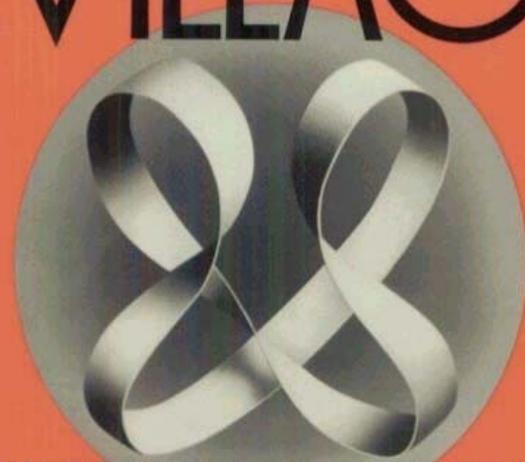


McLuhan
was right!



MARSHALL McLUHAN
& BRUCE R. POWERS

THE
GLOBAL
VILLAGE

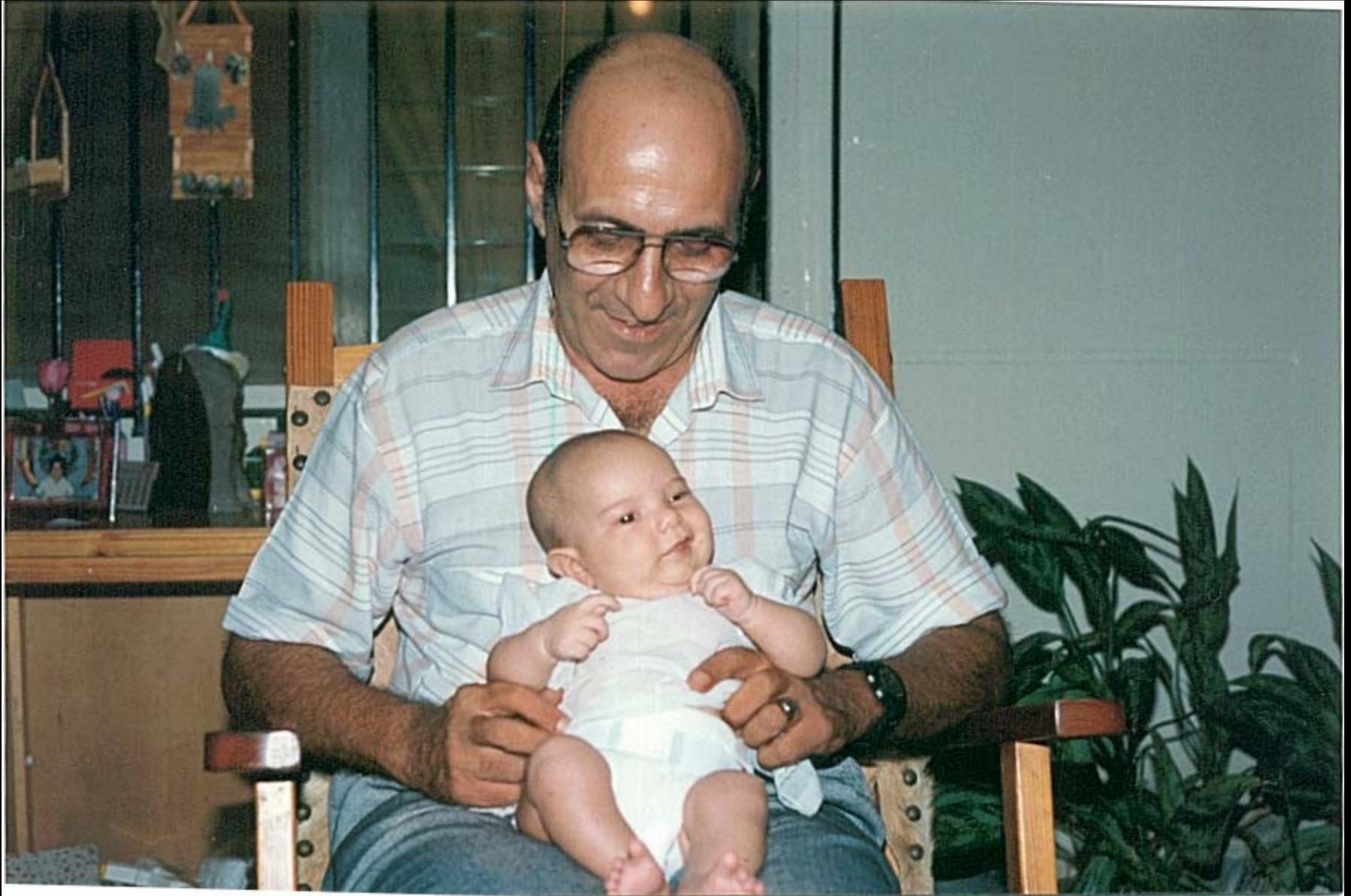


TRANSFORMATIONS IN WORLD LIFE
AND MEDIA IN THE 21st CENTURY

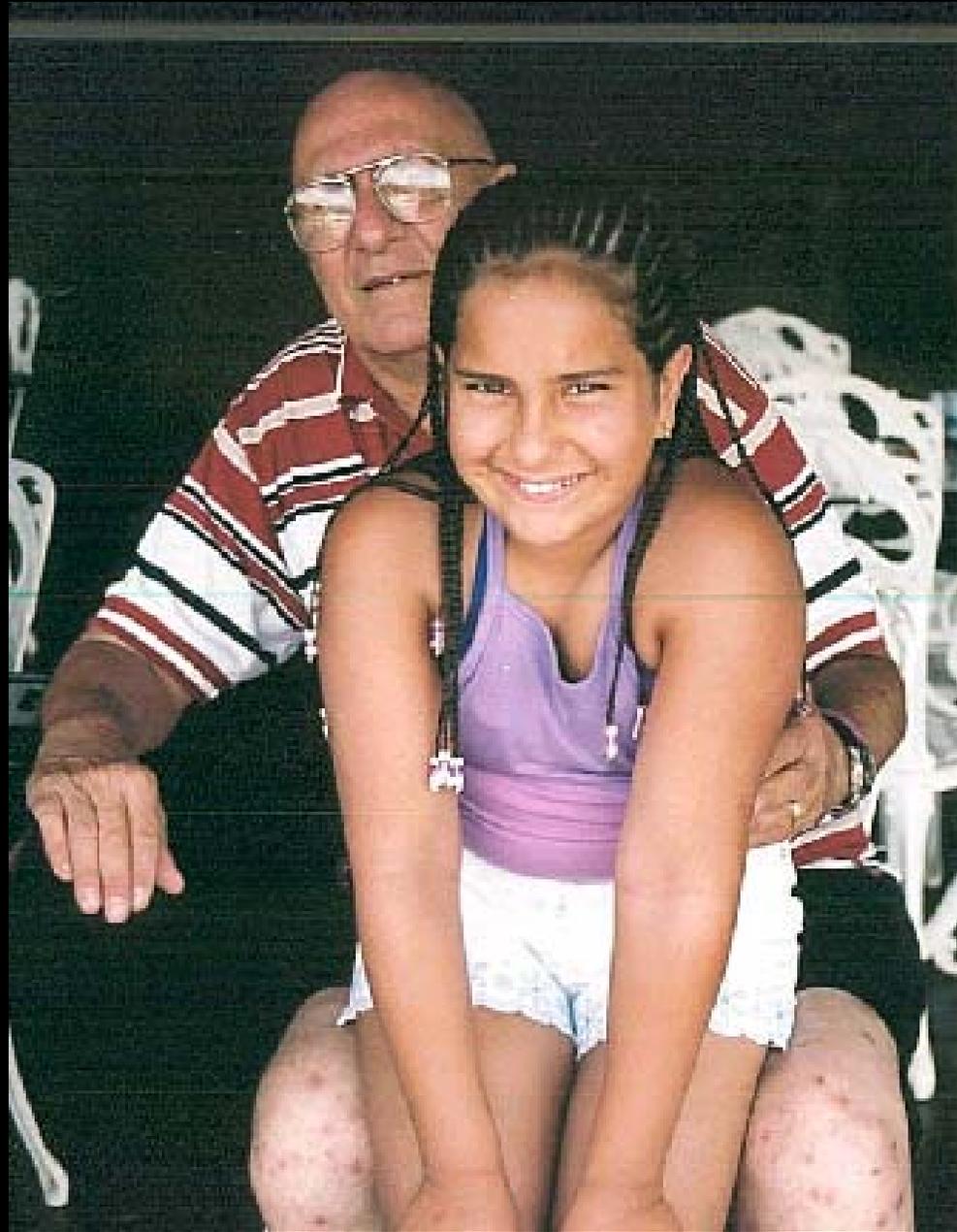
Our personal world is changing...



My own experience...



He taught me a great lesson!



Global patient-centred care is possible!



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English | Français



Cancer Care Ontario Practice Guidelines Initiative (CCOPGI)



Clinical Practice Guidelines & Evidence Summaries

[Other Guidelines](#)
[Other Web Sites](#)
[Web Referencing](#)
[Contact Information](#)
[What's New?](#)
[Home](#)
[Help](#)

<p>Please select from the list on the right to view the Clinical Practice Guidelines and Evidence Summaries developed by a CCOPGI Disease Site Group. All documents on our Web site can be printed directly from the Web.</p> <p>A Clinical Practice Guideline (CPG) is an evidence-based statement that</p>	<p style="text-align: center;">Disease Site Group</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <p>Breast Gastrointestinal esophagus, stomach, bowel and rectum, liver and pancreas Genitourinary kidney, bladder and</p> </td> <td style="width: 50%; border: none; vertical-align: top;"> <p>Lung Melanoma skin Neuro-Oncology brain and nervous system Pediatric Sarcoma</p> </td> </tr> </table>	<p>Breast Gastrointestinal esophagus, stomach, bowel and rectum, liver and pancreas Genitourinary kidney, bladder and</p>	<p>Lung Melanoma skin Neuro-Oncology brain and nervous system Pediatric Sarcoma</p>
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Will we meet their expectations?



They expect us to be efficient



What do they get?

Google™

[Advanced Search](#)

[Preferences](#)

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sars

Google Search

Search: @ the web @ pages from Canada

Web
Search

More than 5.5 million
sites in less than a
second!

- 10 of

Latest
<http://www>

dates

Categor

News: [SARS Kills Two More in Canada, Brings Death Toll to 38](#) - Reuters
ago

[China says SARS cases below 100](#) - NEWS.com.au - 2 hours ago

[Two More People Die of SARS in Toronto](#) - ABC News - 3 hours ago

Try Google News: [Search news for sars](#) or [browse the latest head](#)

Global sites!



World Health Organization

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CSR Home

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Drug Resistance

Global Outbreak
Alert &
Response

Communicable Disease Surveillance & Response (CSR)

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Location: [WHO](#) > [WHO sites](#) > [CSR Home](#) > [Severe Acute Respiratory Syndrome \(SARS\)](#) > [Situation Updates - SARS](#)

Situation Updates - SARS

20 June 2003

Update 85 - WHO case definition for diagnostic purposes, Hong Kong close to being removed from list of areas with local transmission

[Full text](#)

19 June 2003

Update 84 - Can SARS be eradicated or eliminated?

[Full text](#)

18 June 2003

Update 83 - One hundred days into the outbreak

[Full text](#)

HIGHLIGHTS

[Severe Acute Respiratory Syndrome \(SARS\)](#)

20 June 2003

Cumulative Number of Reported Probable Cases of SARS

[Full text](#)

20 June 2003

Update 85 - WHO case definition for diagnostic purposes, Hong Kong close to being removed from list of areas with local transmission

[Full text](#)

[SARS Travel](#)

Multilingual national site!

 Health Canada Santé Canada Canada 

Français	Contact Us	Help	Search	Canada Site
PPHB Home	Centres	Publications	Guidelines	A-Z Index
Child Health	Adult Health	Seniors Health	Laboratories	Surveillance

[Health Canada Home](#) Population and Public Health Branch (PPHB)

SARS

Severe Acute Respiratory Syndrome

[General Information](#)

[For Health Professionals](#)

www.sars.gc.ca

Last Updated: 2003-06-20 [Important Notices](#)

Same information... different level

The screenshot shows the Ontario Ministry of Health and Long-Term Care website. At the top left is the Ontario logo and the word "Ontario". To the right is the text "Ministry of Health and Long-Term Care". Below this is a search bar with a "SEARCH" button and a navigation menu with links for "home", "central site", "contact us", "site map", and "français". A secondary navigation bar contains "Public Information", "Health Care Providers", "News Media", and "Text Only Version". Below this, the page is categorized as "Section" and "Public Information". The main heading is "Health Update". The content section is titled "SARS : Severe Acute Respiratory Syndrome". The text below the heading states: "On March 26th, Premier Ernie Eves declared Severe Acute Respiratory Syndrome (SARS) a provincial emergency. The Ontario Ministry of Health and Long-Term Care and health care providers took steps to contain the spread of SARS isolating those people who were exposed, restricting hospital visits and adopting new infection control procedures at all levels of the health care system."

Ontario

Ministry of
Health and Long-Term Care

SEARCH

| [home](#) | [central site](#) | [contact us](#) | [site map](#) | [français](#) |

[Public Information](#) [Health Care Providers](#) [News Media](#) [Text Only Version](#)

Section **Public Information**

Health Update

SARS : Severe Acute Respiratory Syndrome

On March 26th, Premier Ernie Eves declared Severe Acute Respiratory Syndrome (SARS) a provincial emergency.

The Ontario Ministry of Health and Long-Term Care and health care providers took steps to contain the spread of SARS isolating those people who were exposed, restricting hospital visits and adopting new infection control procedures at all levels of the health care system.

More of the same... deeper level



HOME CONTACT US HOW DO I...? SEARCH:

LIVING IN TORONTO

DOING BUSINESS

VISITING TORONTO

ACCESSING CITY HALL

- Public Health
- Home
- A - Z Index
- News
- Releases
- Publications
- Smoke-free dining
- Eat Smart
- DineSafe
- Animal Services
- Healthy Babies, Healthy Children

SARS (Severe Acute Respiratory Syndrome)

[中文](#) [தமிழ்](#) [Việt ngữ](#) [français](#) [italiano](#) [português](#) [한국어](#) [español](#) [Русский](#)
chinese tamil vietnamese french italian portuguese korean spanish russian



SARS Update June 9, 2003

[See below for SARS fact sheets and further information](#)

Please keep in mind that the risk to the general public of contracting SARS is very low. SARS is not in the general community. The current SARS situation is contained in hospital settings.

SARS (Severe Acute Respiratory Syndrome)



Fact Sheet May 29, 2003

- [Download a PDF version of this document](#) (PDF file size 28KB)
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- [Có thông tin bằng Việt ngữ](#) (PDF file size 205KB)
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- [Le informazioni sono disponibili in italiano](#) (PDF file size 32KB)
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- [한국어 안내를 받으실 수 있습니다.](#) (PDF file size 449KB)
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Challenges

Culture of competition and individualism

Obsessive pursuit of leadership

Territoriality and parochialism

Cynicism

No time (even to think)

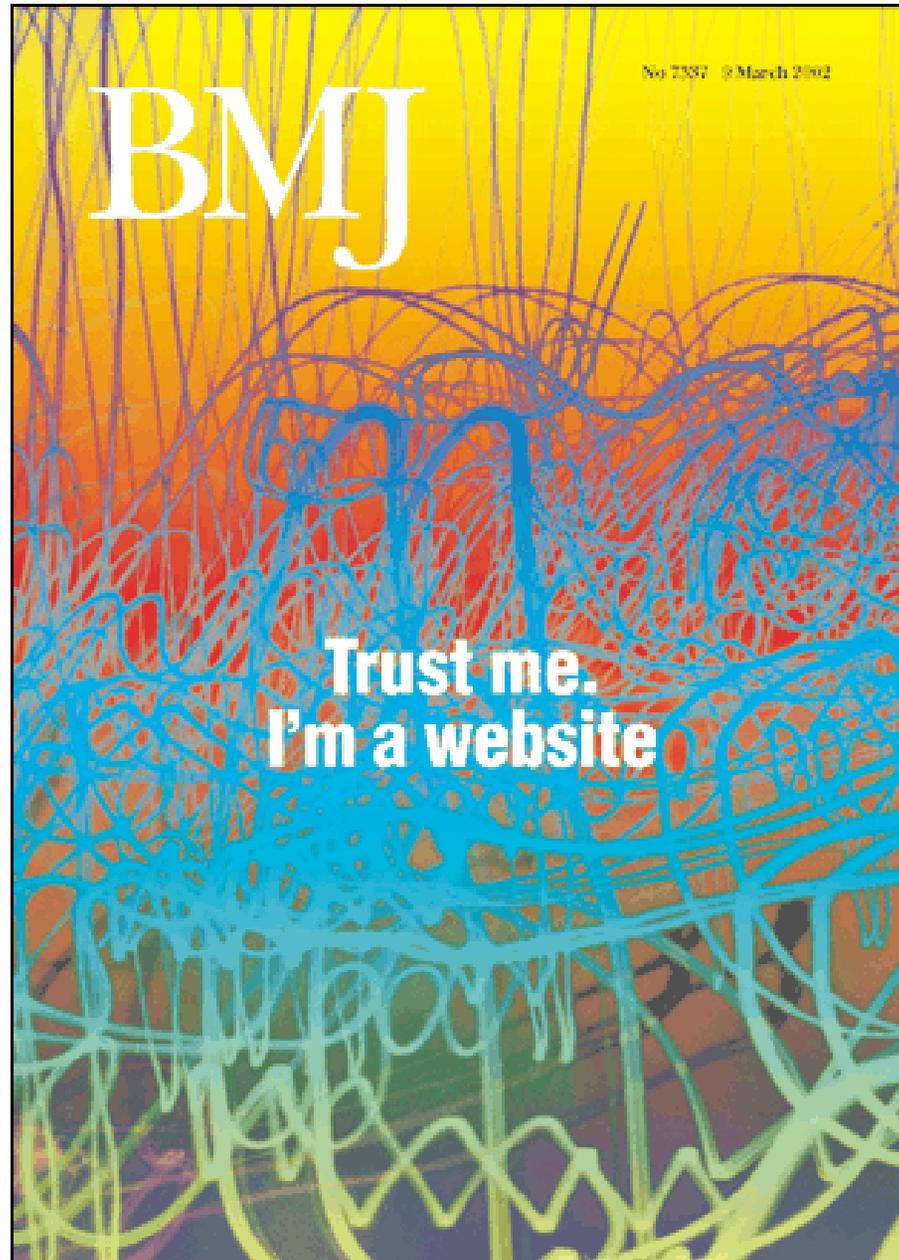
Lack of experience

Fear of the unknown

They expect us to be trustworthy



But, the Internet is exposing our flaws!



A lot of people may not benefit!

- 22% of adult Canadians are unable to understand a medicine label, a bus schedule or a weather chart from a newspaper
- A further 26% can read, but can only deal with simple health-related material
- The greatest problems were among people over 65 (80% are functionally health illiterate)
- We know little about computer literacy...

MD

PLEASE DON'T
WASTE THE
DOCTOR'S
TIME WITH
QUESTIONS



1970

They expect us to meet their needs



Dad, why cannot you send a picture to a doctor?



Exploring our patients' needs

- 1019 patients surveyed in 3 weeks during the SARS outbreak
- 70% had used the Internet
- More than 80% ready to use it to check and book clinic appointments
- More than 65% willing to communicate with health professionals at UHN through the Internet
- More than 40% of patients are willing to participate in projects on eHealth innovations

Are patients' wishes reasonable?

- 3924 citations identified up to July of 2003
- 11 randomized controlled trials on one-to-one communication
- All trials looked at asynchronous communication, mostly by e-mail
- High quality studies show improved outcomes in patients with panic attacks, tinnitus, headaches and post-traumatic stress
- No study has compared the same service online vs. face-to-face

They expect partnership





- 
- In the US, less than 10% of physicians exchange messages with their patients
 - 79% of physicians have reported no desire to communicate with patients via e-mail
 - We have little data on barriers and enablers
 - Few, if any, institutions are asking patients for their e-mail addresses formally
 - In Toronto, of 418 health professionals surveyed, 35% expressed interest in e-mail communication with patients in the future
- 

Not to e: What we say!

Confidentiality

Reduction in quality of care

Alternative means are preferable

Poor legal protection



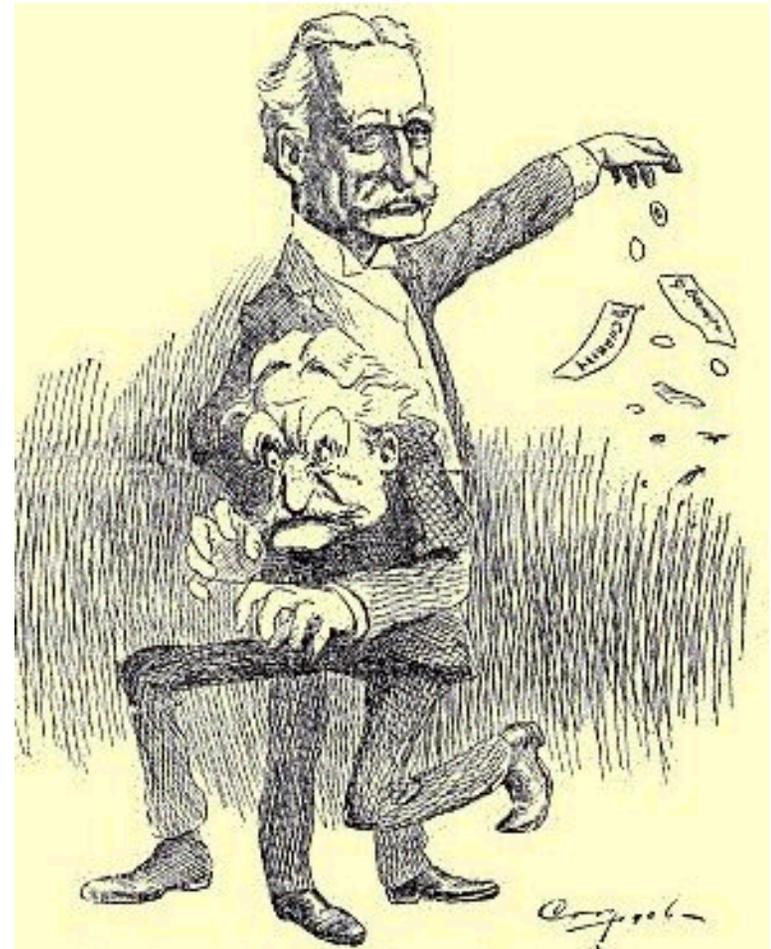
What do we really mean?

I do not want to lose **C**ontrol

I **R**efuse to change

Accountability is frightening!

I need to be **P**aid



A virtual clinic!



Internet Clinical Communication Centre

Helping you manage your Cancer. Online.

Patients



Healthcare
Providers

This site enables Internet communication between
Cancer patients and healthcare providers.

To view this site in a different language, click the appropriate link below:

[Chinese](#)



[Italiano](#)



[Português](#)



[Indian](#)



[Español](#)



[Vietnamese](#)



[Polish](#)



[Korean](#)



[Français](#)



Program in
eHealthinnovation



Online access to health records

The screenshot shows a Microsoft Internet Explorer browser window titled "UHN HealthNet: Logged In - Microsoft Internet Explorer". The address bar displays the URL: http://142.224.18.109:8080/uhnhealthnet/portal/media-type/html/role/physician/page/default.psm/js_pane/pHome. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar contains icons for Back, Forward, Stop, Refresh, Home, Search, Favorites, Media, and other utility functions.

The main content area of the web application features the University Health Network HealthNet logo on the left, with the text "Welcome, Dr. Physician-PRO." and a "Logout" button. To the right of the logo is a search section with the heading "Enter a patient's name (Last, First) or MRN" and a text input field. Below this is a search filter with radio buttons for "my patients" and "all UHN patients", and a "Search" button. To the right of the search section is another search section with the heading "Or select a site and location (all UHN patients)". It contains two dropdown menus: the first is set to "TGH & PMH" and the second is set to "Emergency". Below these is another "Search" button.

Below the search sections is a horizontal navigation bar with five tabs: "Home" (highlighted in orange), "Patient Lists", "Help", "Physician Inbox", and "Review Queue".

The main content area is divided into two columns. The left column is titled "What's New" and contains two news items: "HealthNet Pilot Launches" with the text "The UHN HealthNet pilot project is now underway..." and "Something happens" with the text "Something happened... Find out what it was." The right column is titled "My Quick Links" and contains a note: "Note: Links will open in a new browser window". Below the note are two bullet points: "Remote Telerad Access provides access to ..." and "Bugzilla is the UHN HealthNet bug tracking tool. Use Bugzilla to report any bugs, issues, or problems you might have with HealthNet (however minor they may be), or to request new features."

They expect an integrated system





Welcome, Alejandro.
[Sign in](#) - [sign up](#) - [sign out](#)



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BUILD YOUR PERFECT TRIP



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Departing from:

Toronto, ON, Canada (YYZ-Pearson)

Depart:

4/10/03



Morning

Going to:

Return:



Evening

Adults: (age 19-64)

1

Seniors: (65+)

0

Children: (0-18)

0

Search

More flight search options: [One-way trips](#), [multiple destinations...](#)

EXPEDIA PRESENTS



- Plan your getaway now with our **Fall Escapes** sale!
- It's the perfect time for **Hawaii!** 7-nt air/hotel from **C\$999**
- Check out our **Vancouver** hotel deals: from **C\$195/night**
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4 nt. package:

Calgary **C\$699**

Las Vegas **C\$599**

7 nt. package:

Bahamas **C\$1199**

- All inclusive

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Hot Hotel Deals

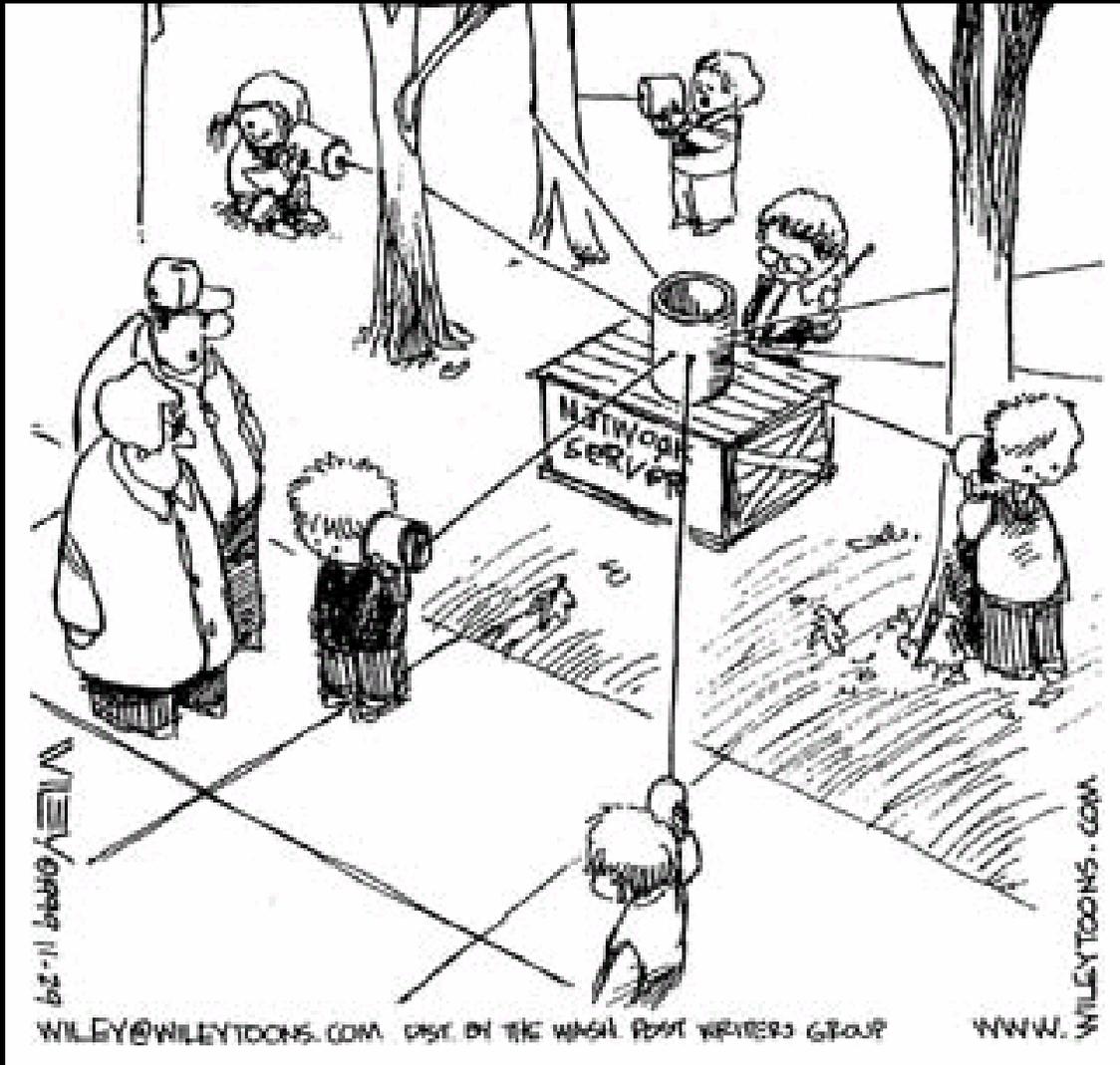
Great world-wide hotel deals

Cities: One night from:

Las Vegas **C\$54**

Toronto **C\$85**

Where are we?



- 104 IT managers (31% response rate)
- 25% have implemented pharmacy order-entry systems
- 15% electronic management of images
- 36% have electronic health records
- 15% had a serious breach of security during past year
- About 30% of managers thought that CEOs did not understand technology

Business Professor Richard Irving, PhD, the survey provides aggregate data and trend interpretation on the installed I.T. base, investment plans

Bringing different sources together

Internet Clinical Communication Centre

Helping you manage your Cancer. Online.

Welcome to the Internet Clinical Communication Centre.
Please select your request by clicking one of the symbols below.



Prescription
Renewal



Appointment
Booking



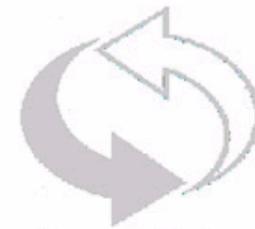
Non-Urgent
Consultation



My Health
Record



My Health
Sites



From Patients,
To Patients



You have **2** new incoming messages.

[Click Here to Leave Comments or Suggestions](#)



Logout

Simple security tools



Sign In
CANADIAN IMPERIAL BANK OF COMMERCE

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- ▶ Travel Medical Insurance
- ▶ Browser Security Info
- ▶ Electronic Access Agreement

Welcome to CIBC Online Banking

CIBC Convenience Banking, Small Business Banking or CIBC VISA Online.

Card number

Online Banking password

[Forgotten Password ?](#)

Sign In

If you have been provided with a temporary password by Telephone Banking or CIBC bank machine registration, enter it into the password field above and select Sign In.

If you have not received a temporary password, select Register Now to continue.
[Register Now.](#)

Where are we?

- 337 general practitioners interviewed
- 94% had a computer in their practices
- 79% used the Internet or a clinical network
- 39% of the practices had a Web page
- 17% used an electronic health record
- 17% used a PDA in the clinic

Harris Interactive, 2002

Why...



...have we failed to follow a common approach?

... after the explosion of the Web are we still struggling with this?

...could others get their act together?

...do not we overcome the bottlenecks?

... cannot we identify those accountable for failures?

They expect us to collaborate



Will these resources be wasted?

COMMISSION ON THE FUTURE
OF HEALTH CARE IN CANADA



Canada
Health
Infoway



Canadian Institute for Health Information
Institut canadien d'information sur la santé



Canada Foundation for Innovation
Fondation canadienne pour l'innovation



CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

We could be doing much more!



Promoting global superhospitals

- Global collaborative research, education and health care delivery among hospitals
- Ultra-specialized telehealth service
- Basic general services for local use
- A strong consortium to increase bargaining power
- Fostering of multi-government or super-governmental policies

Cortinois, Downey, Closson, Jadad, 2003

Embracing tele-health!



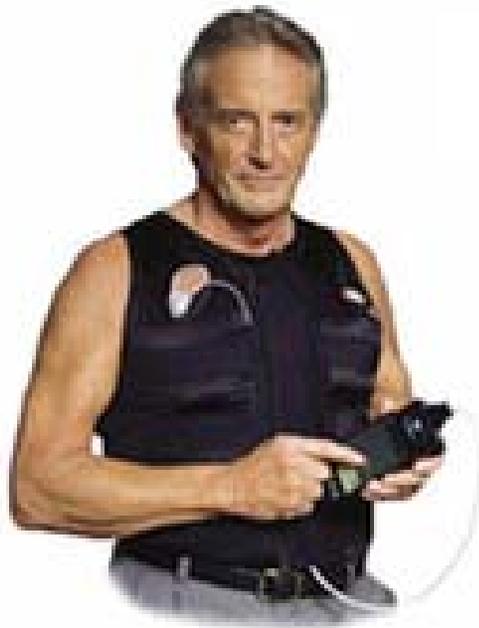
Hospitals at home!



Mobile computing!



How about context-aware computers?



how it works

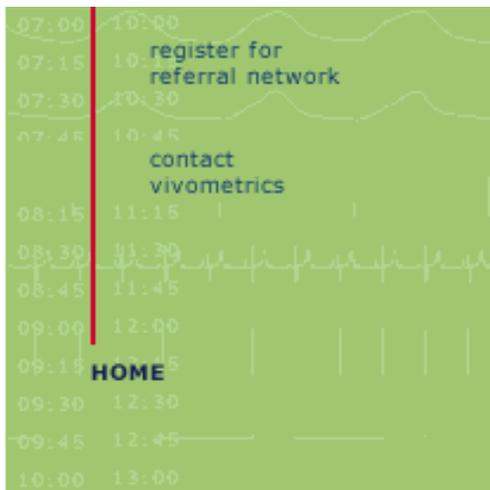
The LifeShirt System brings gold standard monitoring technology out of the hospital and into the real-world environment. With 15 patents covering wearable sensor design and proprietary software algorithms, the LifeShirt System by VivoMetrics is an enhanced, ambulatory version of an in-patient system currently used in more than 1,000 hospitals worldwide and cited in more than 1,600 peer-reviewed scientific papers.

monitor

record

analyze

interpret



Sensors continuously monitor 30+ cardiopulmonary signs.



The data are captured in a small recorder, with patient's time-stamped diary entries.

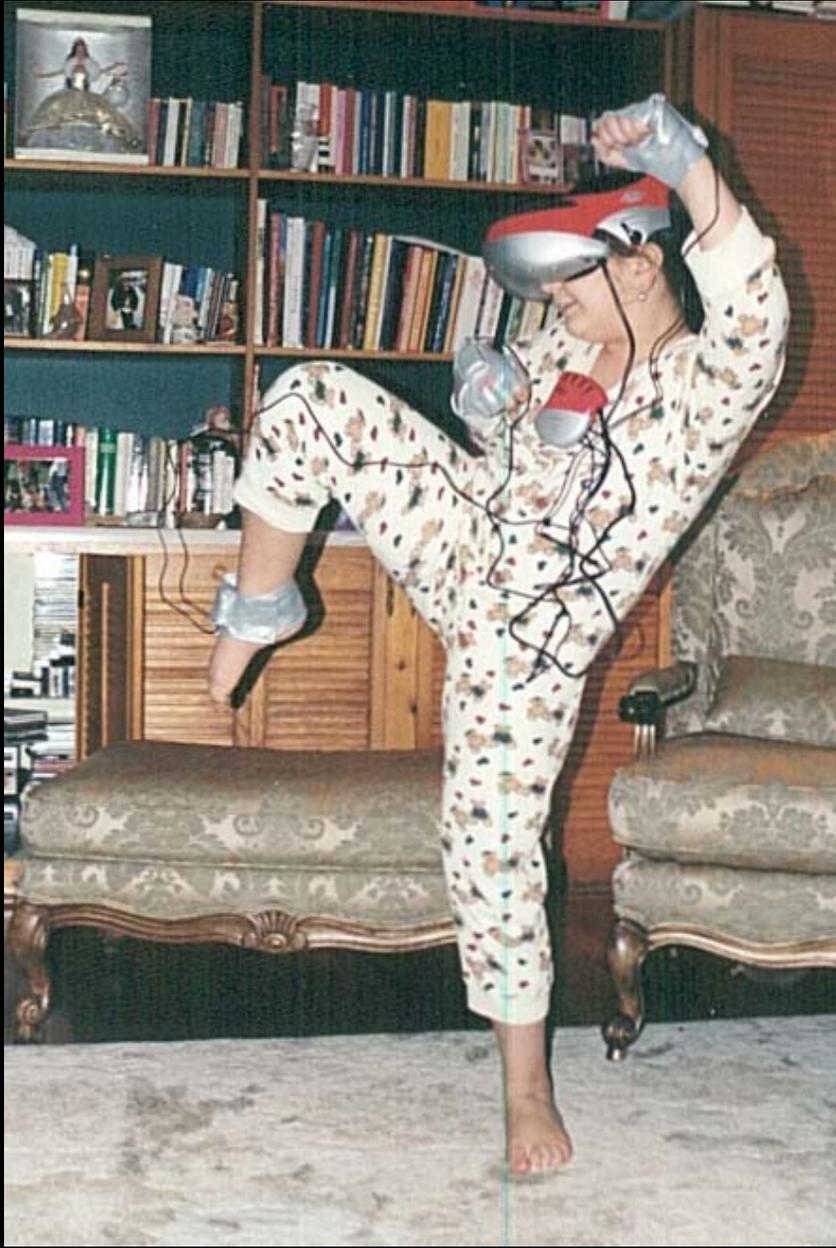


VivoLogic software analyzes and presents the data in easy-to-interpret graphical and numeric reports.



Researchers and physicians see a "movie" of patient health during normal activities.

How about immersive eLearning?



...how about implanted systems?

Family Armed With Chip in Medical First

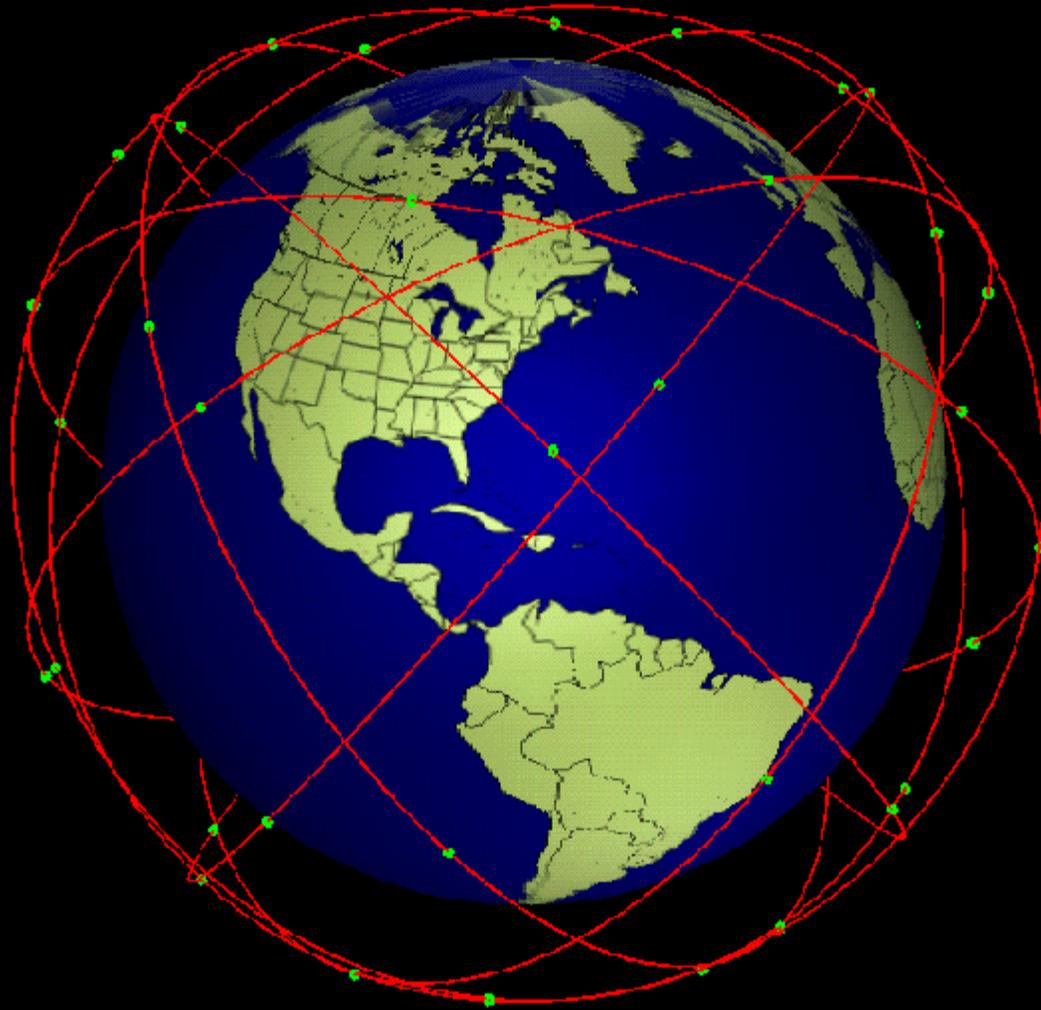
By THE ASSOCIATED PRESS



Health

The New York Times

How about a global health system?



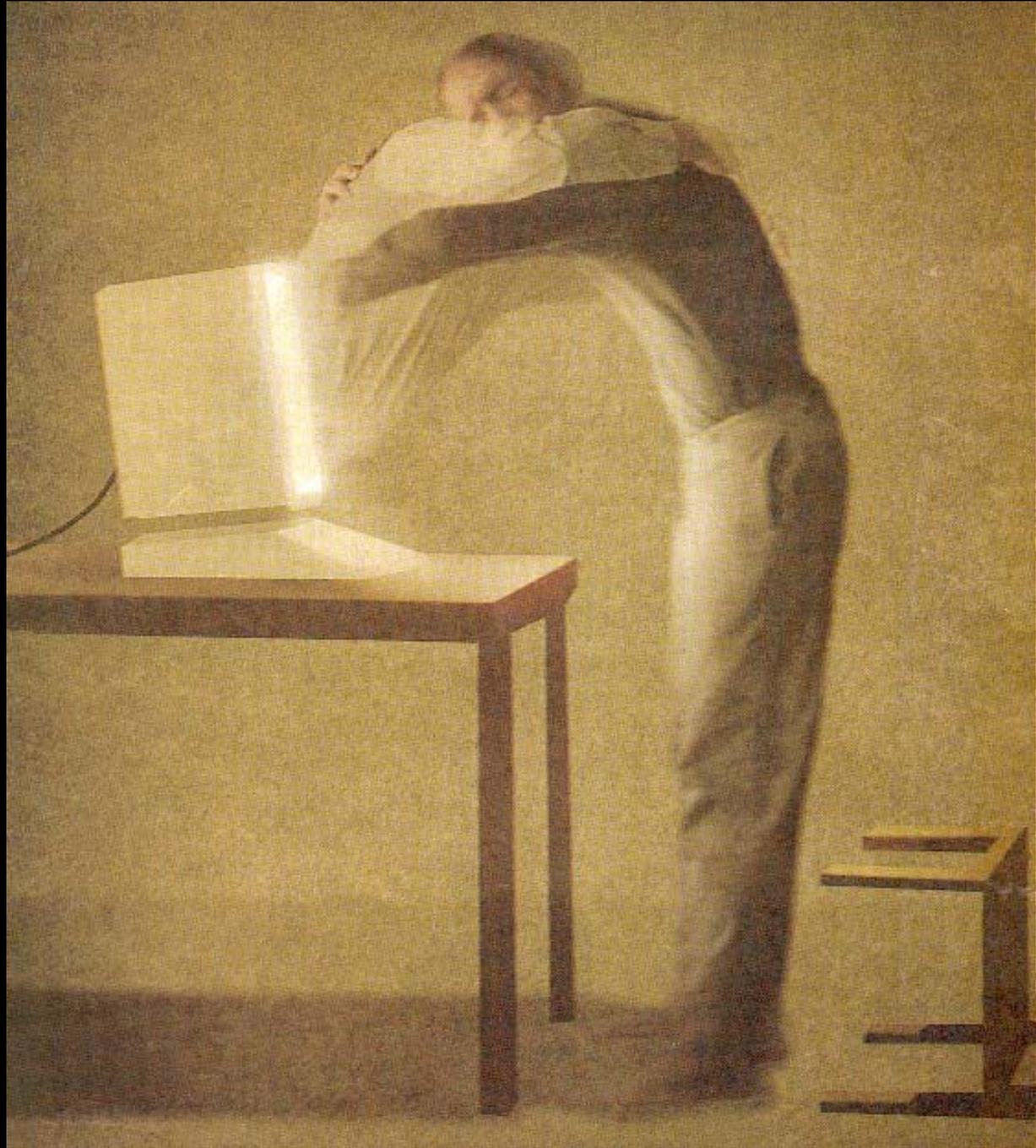
Centre for Global eHealth Innovation



Canada Foundation for Innovation
Fondation canadienne pour l'innovation







Physical workspace for 60 people...



Usability testing



Usability testing



One way mirrors



Sound proof walls
and doors

Flexible configuration



Multitasking Simulation Labs



Global eHealth Innovation Collaboratory (GeIC)



ePresence lab interactive webcasting
Knowledge Media Design Institute at the University of Toronto

*Actual size. See image alone.
This image may be subject to copyright.*

Below is the image in its original context on the page: epresence.kmdi.toronto.edu/archived.asp



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Telethics for Telepresence: The Ethics of Immersive Virtual Environments

Steve Jones



UIC University of Illinois at Chicago

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SLIDE 2

Select Chapter:



Creating a mini-model of the world



Using the real world as a living lab



Health care institutions

Community centres

Homes

Schools

Libraries

Workplaces

And more...



Finding effective interventions anywhere...



Testing them in Canada...



Testing them in Canada...



Implementing them widely



Too dependent on electricity?

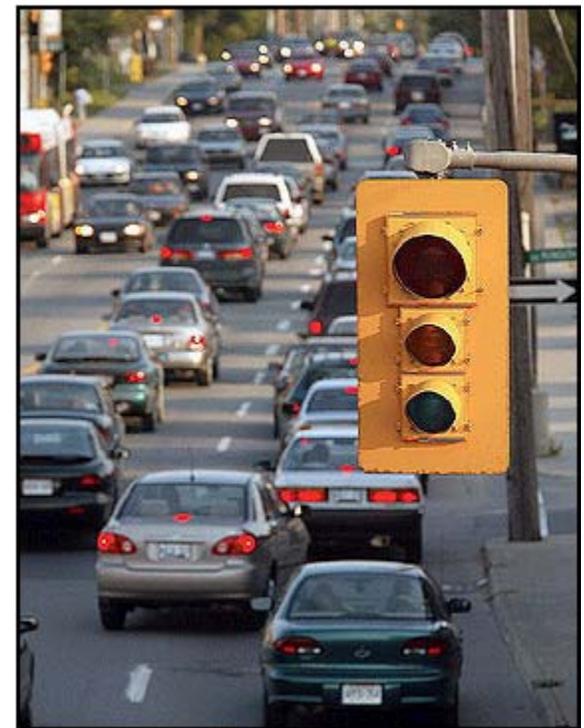
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SHOWWEI CHU
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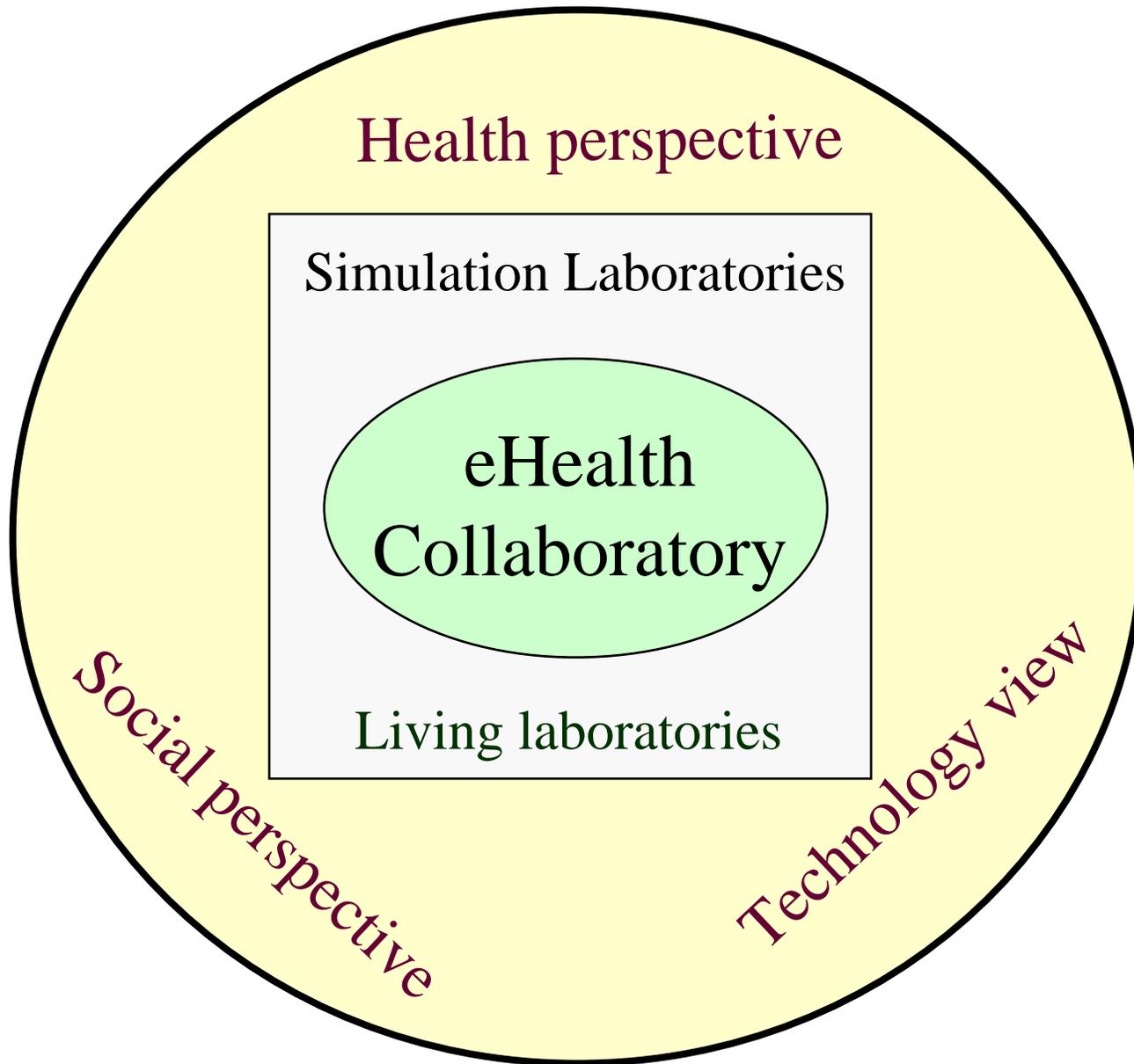
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Collaboration among global organizations

- We are leading a think tank to promote worldwide collaboration around cancer control and pain management
- More than 5,000 people surveyed in 2 years
- More than 1,700 are interested in global collaboration
- They are from over 90 different countries and using more than 50 languages
- Interest in eLearning, collaborative research and guidelines to improve practice

Making it all fit together



Let's play a nice tune together



Do not disappoint them!

