



# **INNOVATION AND FUTURE DIRECTIONS IN EDUCATION**

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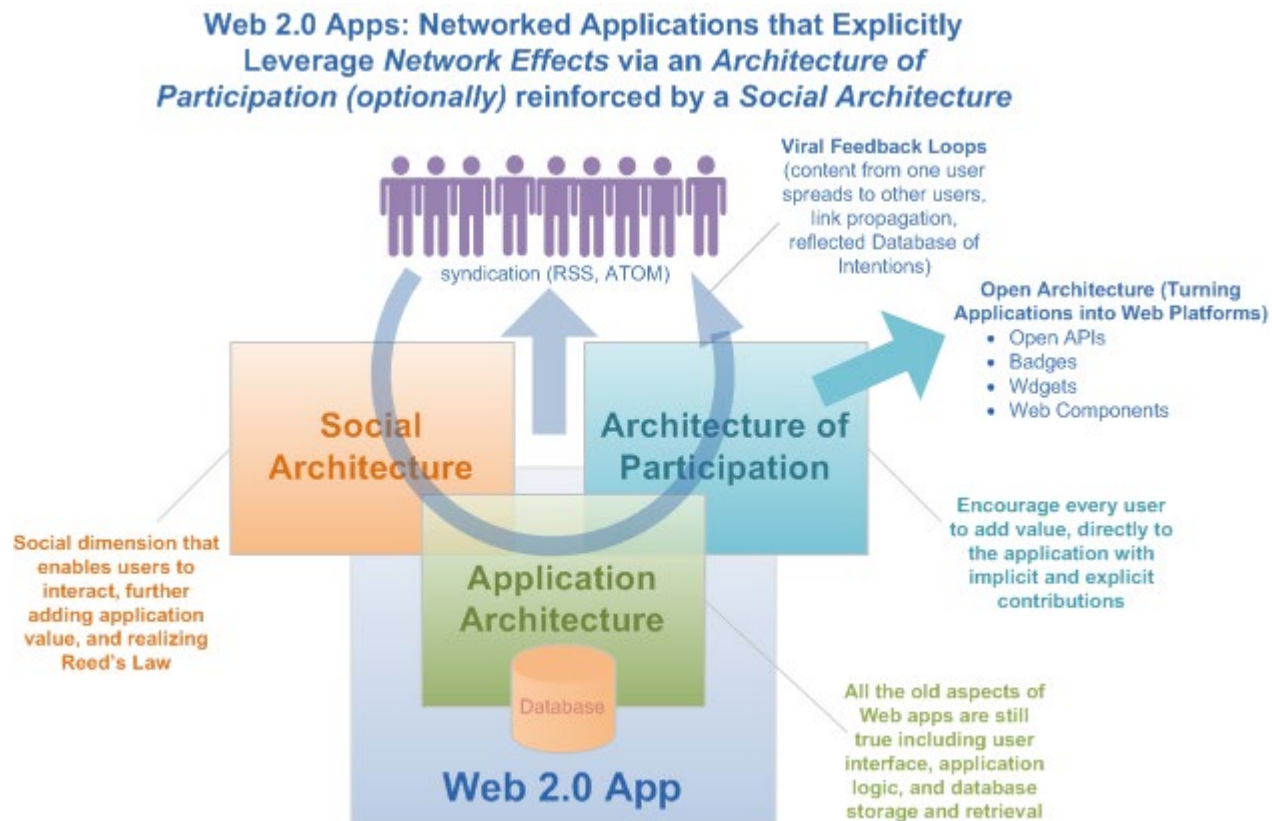
**Ryerson University**

**Presented at St Michael's Hospital Education  
Summit, March 1<sup>st</sup> 2011.**

# 21<sup>ST</sup> CENTURY INNOVATION?



# SOCIAL MEDIA HAVE CHANGED INNOVATION

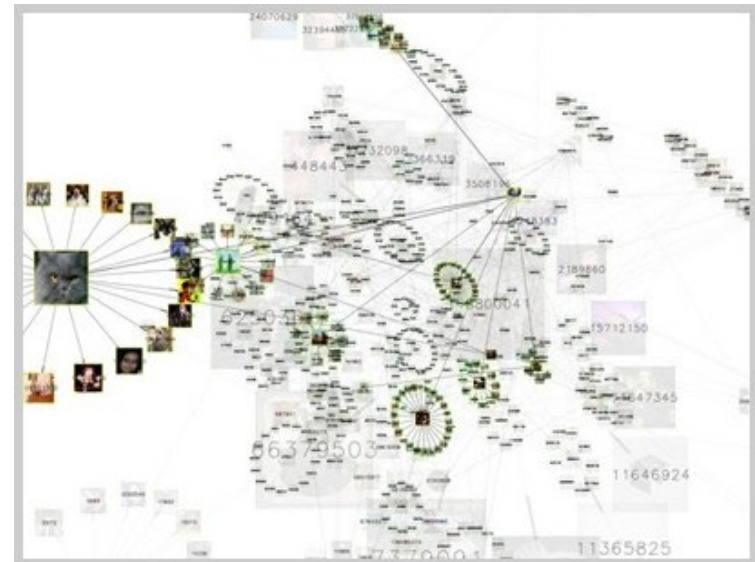


Source: <http://web2.wsj2.com>



# SOCIAL MEDIA REPRESENT NETWORKS OF FOLK CULTURE(S)

- Folk Culture responds to the need of people to **be active social participants** in the creation of their culture (Bakan and Nolan, 2009)
- To share  
To create (Janick, 2009)
- To perform (McLuhan, 1967)



Source:  
<http://marianina.com/blog/wp-content/uploads/2007/07/Socialnetworkingvisualisation.jpg>

**Their own stories,  
experiences and knowledge**



# SOCIAL MEDIA ARE HYBRID SPACES

Personal-Informal-Professional networks boundaries have become fluid (Gensollen, 2007) and now coexist

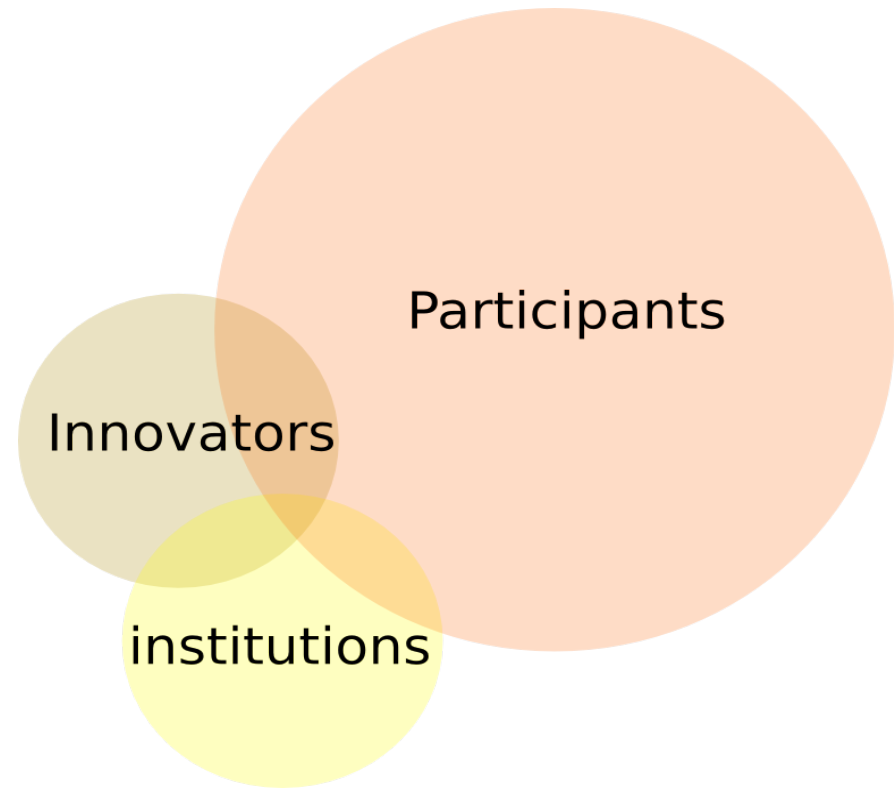
→ Media are now **hybrid social environments** that blend:

1. **Activities:** Personal, Interest, Professional.
2. **Economies:** Product – Services - Gift.
3. **Social organizational models :** Institutions—  
Individuals -Self-organizing Communities.

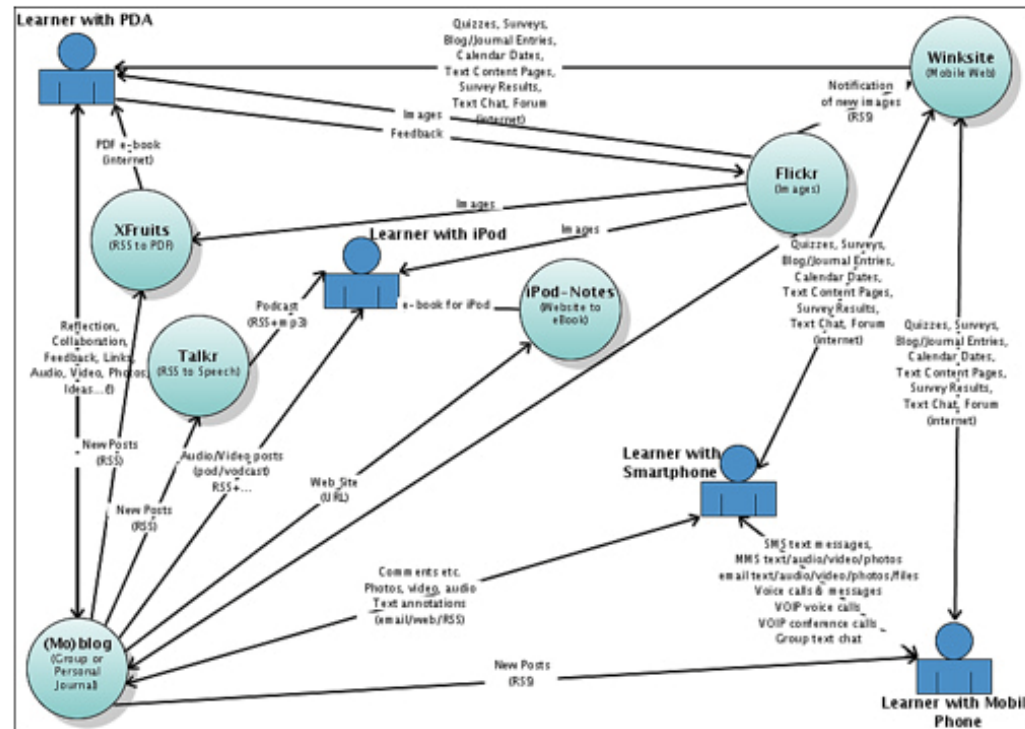


# SOCIAL-CONSTRUCTIONIST INNOVATION FRAMEWORK

Digital Innovation models focus on creating platforms for **users innovators** (Shah and Tripsas, 2007) who create their **own social reality** and **influence institutions** (Berger and Luckmannn, 1966)



# MOBILE, SOCIAL ECOLOGIES



## Mobile, Social Ecology

Blogged at [The Mobile Learning Blog](http://www.themobilelearningblog.com)

Source:

<http://www.flickr.com/photos/leonardlow/277852319/#/>

# EMERGENCE OF INFORMAL LEARNING COMMONS.





# NETWORKS ARE SOCIAL EXPERIENTIAL LEARNING ENVIRONMENTS

- Learning based on interests
- Learning can happen when needed
- Learning in communities
- Experience is a source of expertise
- Learning can take place anywhere
- The world can become the classroom



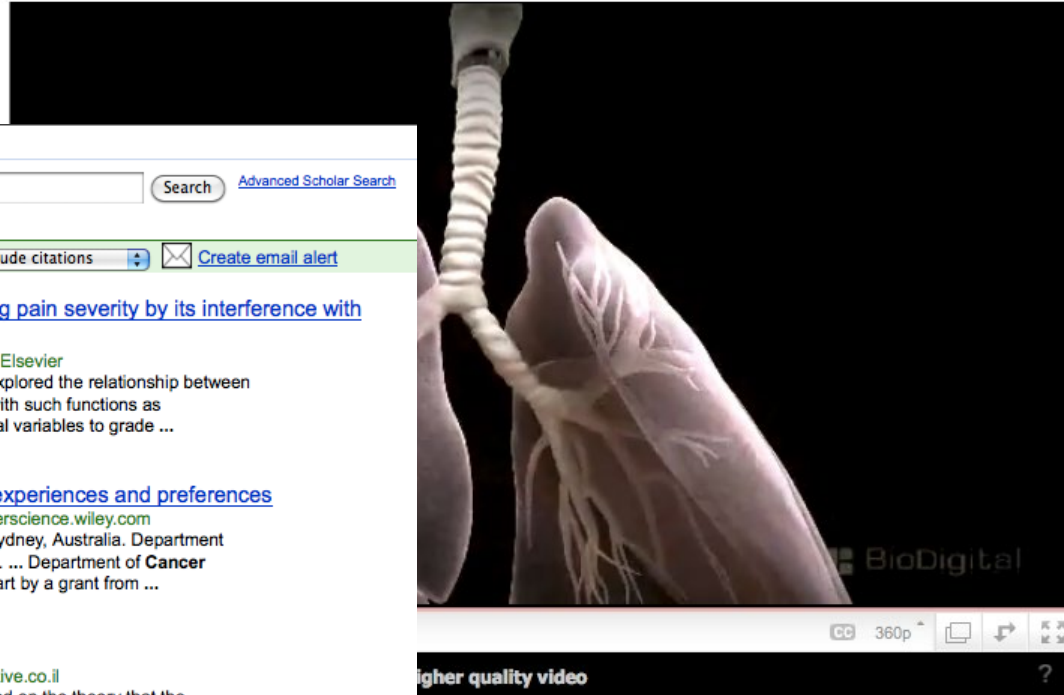
# LEARNER-CENTERED RESEARCH

[Brow](#)

## 3D Medical Animation - What is Cancer?

[biodigitalsystems](#)

11 videos

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Articles and patents



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### [When is cancer pain mild, moderate or severe? Grading pain severity by its interference with function](#)

[RC Serlin, TR Mendoza, Y Nakamura, KR Edwards...](#) - Pain, 1995 - Elsevier

As a way of delineating different levels of **cancer** pain severity, we explored the relationship between numerical ratings of pain severity and ratings of pain's interference with such functions as activity, mood, and sleep. Interference measures were used as critical variables to grade ...

[Cited by 581](#) - [Related articles](#) - [Get at CISTI](#) - [All 7 versions](#)

### [When the diagnosis is cancer: patient communication experiences and preferences](#)

[PN Butow, JN Kazemi, LJ Beeney, AM Griffin...](#) - **Cancer**, 1996 - interscience.wiley.com

' Medical Psychology Unit, Department of Medicine, University of Sydney, Australia. Department of Medical Oncology, Royal Prince Alfred Hospital, Sydney, Australia. ... Department of **Cancer** Medicine, University of Sydney, Sydney, Australia. ... Supported in part by a grant from ...

[Cited by 213](#) - [Related articles](#) - [Get at CISTI](#) - [All 4 versions](#)

### [\[PDF\] Is cancer dangerous to the immune system?](#)

[EJ Fuchs, P Matzinger](#) - Seminars in immunology, 1996 - immunovative.co.il

The hypothesis of immunologic surveillance of neoplasia is predicated on the theory that the immune system is capable of discriminating self from foreign antigens, and that tumor-specific antigens are regarded by the immune system as nonself. We propose here an alternate ...

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Source: <http://www.youtube.com/watch?v=LEpTTolebqo>

# PEER-BASED LEARNING: SHARING LIFE EXPERIENCES


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**Search results for dealing with cancer** Sort by: Relevance  
About 1,860 results

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**Dealing with cancer**  
In September 2009 Malcolm was diagnosed with lung cancer. 14 month later Malcolm and his wife Esther share their thoughts, hopes and fears ...  
by [nolicful](#) | 2 months ago | **2,709 views**




**172. Dealing with Cancer/Death—Robert Smith Faster EFT NLP**  
www.fastereft.com A step-by-step demonstration of how to release grief & anticipated loss when dealing with cancer in a loved one. This demo ...  
by [HealingMagic](#) | 1 year ago | **3,705 views**  
[CC](#)



**Coping with Cancer**  
Edward Leigh, MA, , shares tips on coping with cancer. Edward describes finding the strength to cope with the disease. He is a healthcare ...  
by [EdwardLeighVideos](#) | 1 year ago | **412 views**




**Coping with cancer**  
People who have been through cancer treatment talk about what kept them going and dealing with the practicalities of treatment  
by [NHSChoices](#) | 3 years ago | **4,243 views**

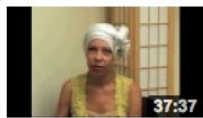


**Coping And Dealing With Cancer Diagnosis - The Early Days...**  
I wrote and produced this short movie for anyone recently diagnosed with cancer. Having


Promoted Video



**F Cancer!**  
It feels good to say it.  
Let It Out!  
by [OurLocalLife](#) | **2,154 views**



**Plant helped endure chemo**  
TA-65 Activates Telomerase  
Two patients and their doc explain  
by [drpark65](#) | **216 views**



**The Acne Practice**  
Dr. Neal is changing lives every day. See all 130+ HD videos  
by [AcnePractice](#) | **2,670,840 views**

- Source: [http://www.youtube.com/results?search\\_query=dealing+with+cancer&aq=f](http://www.youtube.com/results?search_query=dealing+with+cancer&aq=f)

# LEARNING WITHIN COMMUNITIES OF INTEREST

People are learning within informal social networks.

Based on **their interests**.

They share experiences with members of communities of interests.

**Social Constructivism:**

Learning from their **experiences** and **social contexts** (Vygotsky, 1978).

Learning through reflection on doing instead of didactic learning (Dewey, 1939).

The screenshot shows the Autism Speaks Facebook page. The top navigation bar includes the Facebook logo, a search bar, and trending topics like #wordsthatcantastartawar and #ilovesns. The page header for Autism Speaks features a blue puzzle piece logo and the tagline "It's time to listen." Below this is a left-hand navigation menu with options: Wall, Info, Give, Photos (350), Join Us, Invite, RSS/Blog, YouTube, and a "More" link. The main content area displays the "Wall" section, which includes a post by Bernadette Johnson. The post text reads: "My son has autism he is truly a special gift from above I wis understood autism". It shows 11 likes and 6 comments. One comment by Rose Kodis is visible, discussing behavioral issues. Another comment by Rachel Paligo is partially visible at the bottom. The page also shows a "Like" button and a "742,666 people like this" count.

# SOCIAL LEARNING WITHIN COMMUNITIES OF PRACTICES



Lived experiences + Action

Students **co-construct** meaning and **experiences** via co-construction of **cultural** artefacts (Ito, 2008).

Source: <http://bp3.blogger.com/>

Source: <http://www.youtube.com/watch?v=HVCpeTtf2qc>

# NETWORKS ARE INFORMAL LEARNING COMMONS

- Networks have become informal public library and social sphere.
- Each learner builds his-her own knowledge.
- Experiential learning happens within self organizing **social** communities.



INSTITUTIONS ARE ADOPTING NETWORKS.





# TELE-LEARNING

## Lung Cancer Community Seminar

DukeMedicine

136 videos

Subscribe



DukeMedicine | Jun 19, 2008 | 1 likes, 0 dislikes  
Duke doctors David White and Jennifer Garst talk about lung cancer treatment ...

[http://www.youtube.com/watch?v=wAJlta7og\\_s](http://www.youtube.com/watch?v=wAJlta7og_s)





# PROFESSIONAL ONLINE SUPPORT

The screenshot shows a Firefox browser window with the address bar displaying the URL <http://www.facebook.com/#!/profile.php?id=100001264482397>. The browser's menu bar includes File, Edit, View, History, Delicious, Bookmarks, Tools, Window, and Help. The address bar also shows the text "CancerChat Canada".

The Facebook profile page for "CancerChat Canada" is displayed. The profile picture is a logo with the text "cancerChat CANADA". The cover photo is a banner with the text "CancerChat Canada" and "Lives in Vancouver, British Columbia".

The left sidebar shows the "Info" tab selected, with sections for "Wall", "Info", and "Friends". Under "Friends (6)", the following names are listed: Coordinator Couplelinks, Nancy Payeur, Jill Taylor-Brown (CancerCare Manito), and Kate Collie.

The main content area shows the "Activities and Interests" section, which lists "Other" activities: cancerchatcanada, The Ottawa Weekend to End Women's Cancers, Canadian Breast Cancer Foundation, Canadian Virtual Hospice, Breast Cancer Action, Reynolds Canada, Rhino Marketing Inc., and Northern Cancer Control Strategy.

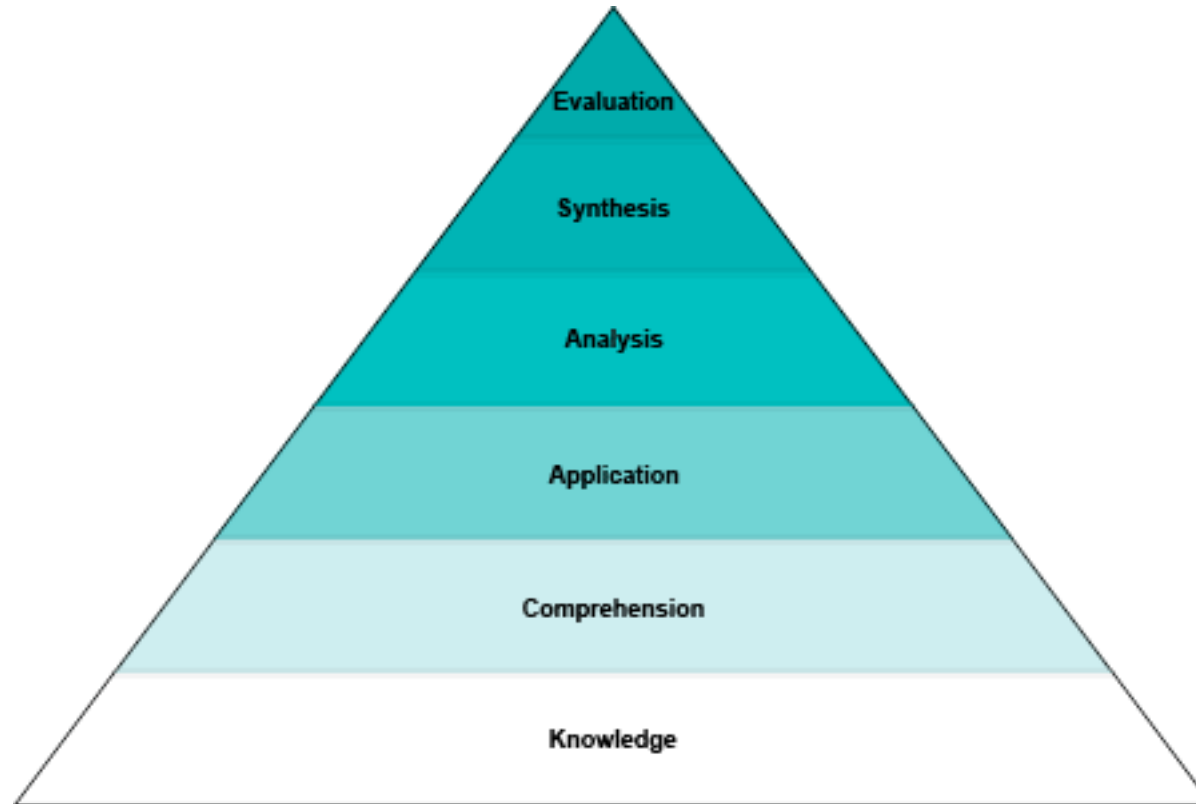
The "Basic Information" section provides details about the organization:

- About:** CancerChatCanada.ca
- CancerChat:** CancerChatCanada provides online support to people affected by cancer and is funded primarily through the Canadian Partnership against Cancer. The program is operated from the British Columbia Cancer Agency in Vancouver, BC.
- Description:** CancerChatCanada offers professionally-facilitated online groups that meet once per week for up to 90 minutes in a live "chat" room on the Internet. Most of the groups meet for 10-12 weeks. All that is required is a computer and access to the Internet. You can register for upcoming groups by completing our online registration form.

# CURRENT THINKING IN EDUCATION?



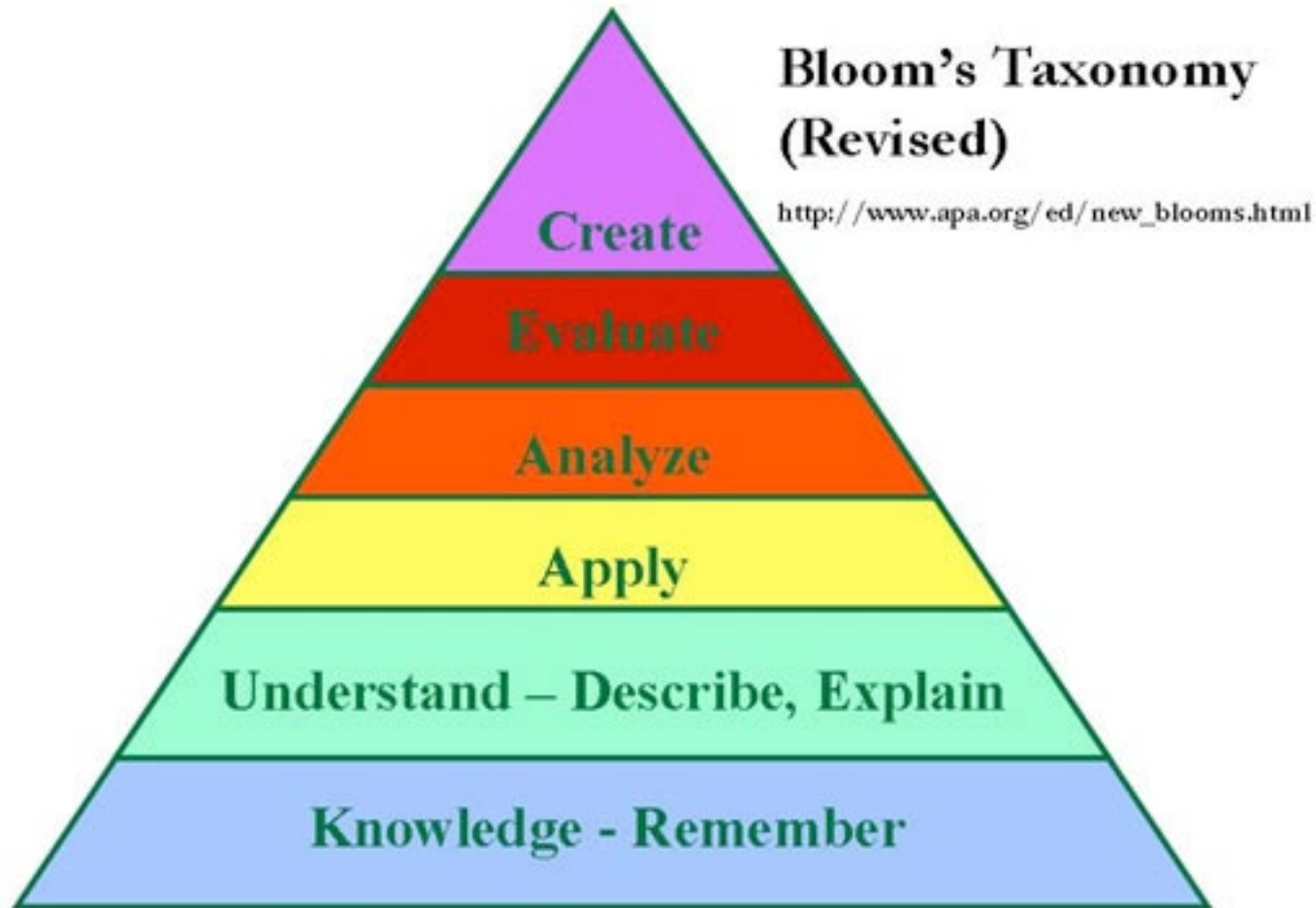
# FROM THE BLOOM TAXONOMY AGE



Bloom's Taxonomy of learning. Adapted from: Bloom, B.S. (Ed.) (1956)  
Taxonomy of educational objectives: The classification of educational goals.  
Handbook I, cognitive domain. New York ; Toronto: Longmans, Green.

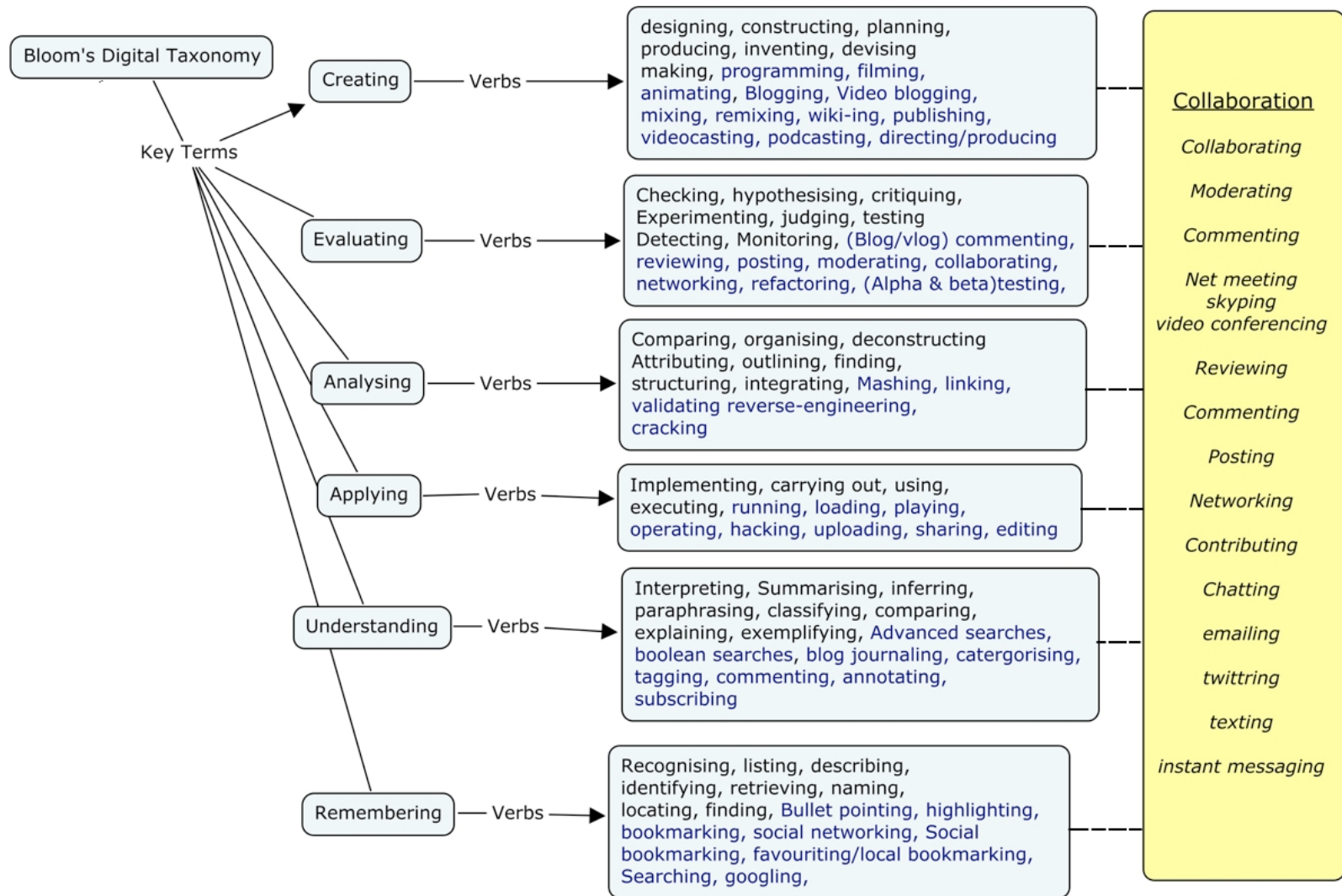


# TO THE AGE OF EXPERIENTIAL LEARNING



Based on an APA adaptation of Anderson, L.W. & Krathwohl, D.R. (Eds.) (2001)

# AND SOCIAL EXPERIENTIAL LEARNING



Source: <http://edorigami.wikispaces.com/Bloom%27s+Digital+Taxonomy>

# FUTURE DIRECTIONS IN EDUCATION?



# OUR FUTURE STUDENTS?



The **Alpha** generation will be in universities within 7 years

Alpha children are Digital natives

Source:

[http://www.pbs.org/newshour/bb/social\\_issues/jan-june10/millennials\\_02-24.html](http://www.pbs.org/newshour/bb/social_issues/jan-june10/millennials_02-24.html)



# HOW DO ALPHAS LEARN?

Our own research is showing that they learn through Network Experiences:

- They use virtual informal learning communities for formal learning
- They use collaborative learning processes
- They trust amateurs for learning how to make
- They value experience
- They blend virtual and physical activities





# EXPERIMENTING WITH LEARNING NETWORKS



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Diana Rhoten On The City As a Classroom



Diana Rhoten speaks with Howard Rheingold about the projects she and others have been organizing to bring together the formal learning that takes place in schools with informal learning through museums, citizen science projects, mobile applications that can turn the city itself into a classroom.

Source: <http://blip.tv/file/3385515/>



# EMERGING SOCIAL LIBRARIES



Books, Video, Research & more



## Human Library

**Programs, Classes & Exhibits**

**Featured Series**

**Human Library**

[Apply To Be A Human Book](#)

UNIVERSITY  
of GUELPH

CHANGING LIVES  
IMPROVING LIFE



HUMAN LIBRARY.ORG



Mar

The Human Library... c

### What is a Human Library?

The purpose of a Human Library is to meet face-to-face who belong to groups that often face challenges or discrimination. It breaks down broad generalizations, stereotyping, misunderstanding and marginalization.

The Human Library is an opportunity for learning and personal development. It is a tool to foster understanding and bring people together in mutual and careful respect for the human dignity of each individual. It breaks down barriers, encourages open dialogue and creates an inclusive environment.

### Books and Readers

The Books in a Human Library are people who are prepared to have an open conversation about their lives and the discrimination they have experienced. The Readers can be anyone who is ready to expand their horizons or simply wants to explore or understand another experience or way of life.

# EMERGING MOBILE LEARNING

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## Mobile Learning Case Studies Overview2

thomcochrane

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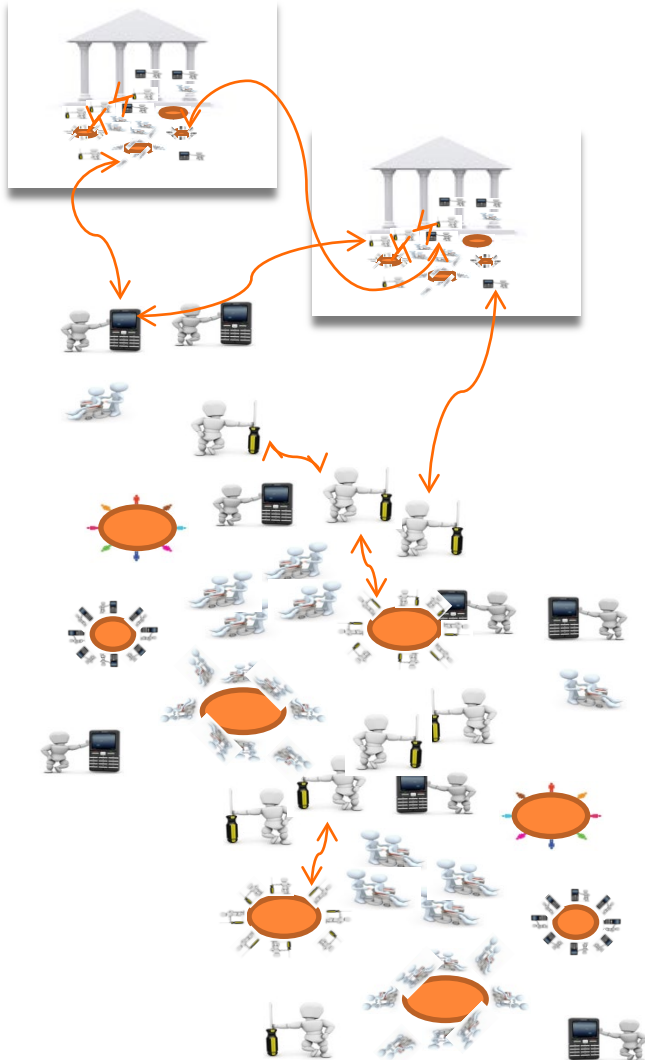
DIVX HIQ Press play for higher quality video

Like Add to Share Embed 409 views

Image Source:

<http://www.youtube.com/watch?v=8Eh5ktXMji8&feature=related>

# EMERGING MOBILE LEARNING NETWORKS MODEL



Incorporates informal learning opportunities:

- acknowledging that innovation exists outside of institutions;
- accepting peer culture within fluid institutional boundaries;
- facilitate new infrastructures for informal learning;
- personal interest drives learning.

Education socializes us to:

- mixed spheres of social/learning interactions;
- the value of intrinsic interest and motivation;
- the value of personal, practical knowledge;
- alternative ways of knowing.

