From Green Libraries to Green Information Literacy

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Our planet is in jeopardy

Water pollution
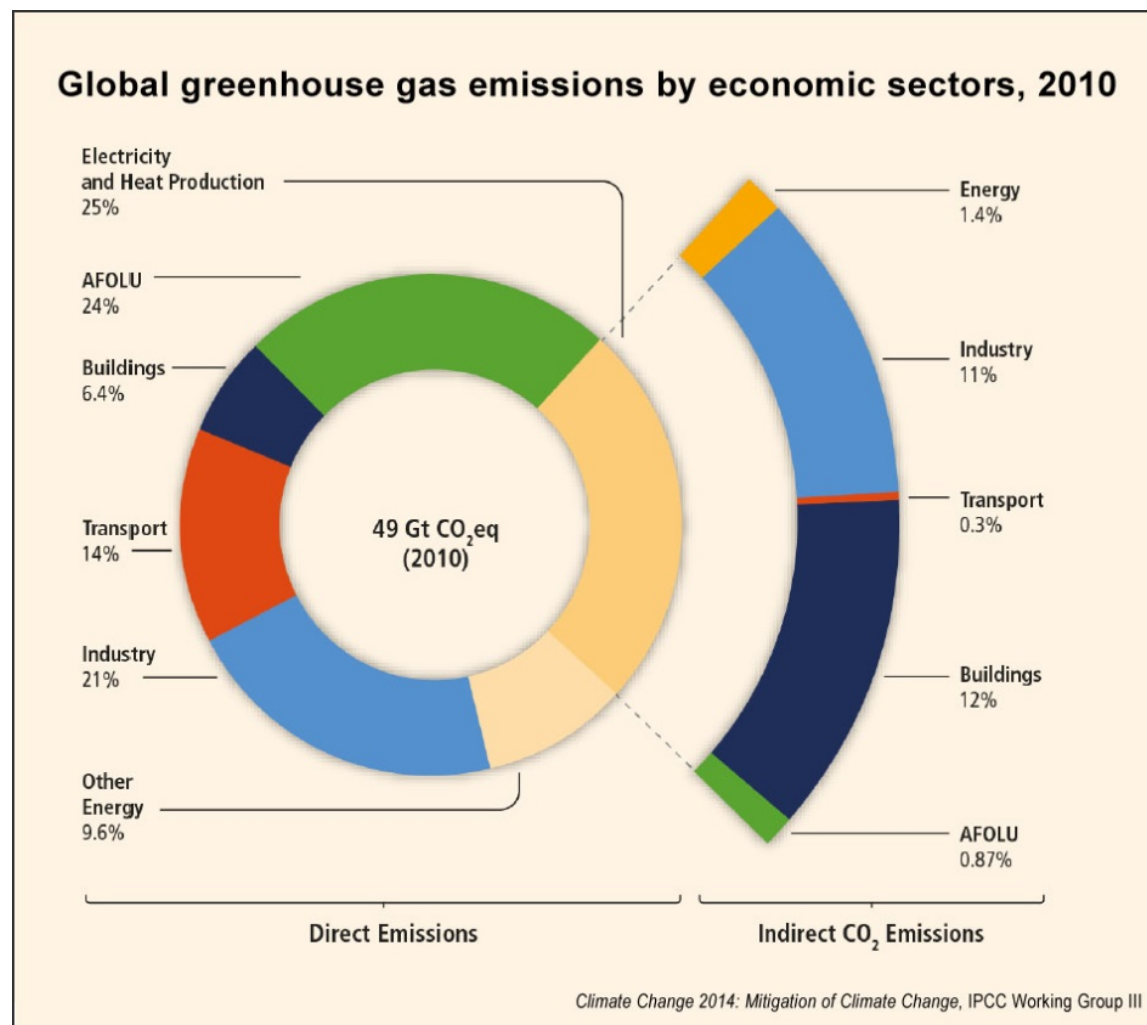
Air pollution

Destruction of ozon layer

Accumulation of toxic wastes

Destruction & depletion of

forests, soil, water, energy...

Emission of greenhouse gases

Global greenhouse gas emissions by economic sectors, 2010

Climate Change 2014: Mitigation of Climate Change, IPCC Working Group III

Enviromental changes impact

- the survival of all living species
- the integrity of the earth
- the security of nations
- the heritage of future generations

Urgent action is needed

- reversing the trend & reparing the damage

- changing people's and institutions' behaviors

- research

Green Library Movement

- emerged in the early 1990s

- main concern is reducing libraries' environmental impact

Terminology

- *Sustainability* is not a synonym for *environmentalism*

- Sustainable development
  - social
  - economic
  - environmental

Terminology

Being green

- taking environmental issues into account when making choices

Being sustainable

- consume resources at a rate no faster than they can renew themselves, and generate waste at a rate no faster than can be assimilated by the environment

Terminology

Green IS

- a system designed to minimize green-house gas emission throughout its lifecycle from content creation to distribution, access, use, and disposal

Carbon footprint

- the total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (CO_2)

Green libraries

- libraries have been practicing sustainability from the beginning

- loaning practice - *re-use of* the same materials extensively reduces trees harvested

Talloires Declaration

- the first official statement for a commitment to environmental sustainability in higher education
- composed in 1990
- signed by over 40 countries
- an action plan for
  - educating environmentally responsible citizens,
  - fostering environmental literacy for all
  - incorporating sustainability in the operations of universities
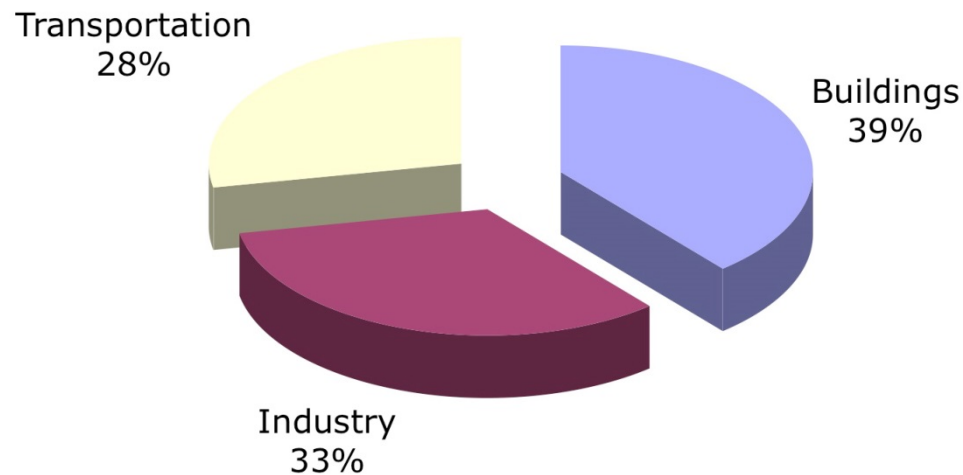- forced academic libraries to start going green

Green library – multi-faceted concept

- green buildings
- green operations and practices
- green programs and services
- green information systems
- green collections

Green buildings

- One of the heaviest consumers of natural resources and produce a significant portion of the greenhouse gas emissions

- Buildings in the U.S. today

  - consume 72% of electricity produced, and 55% of natural gas use

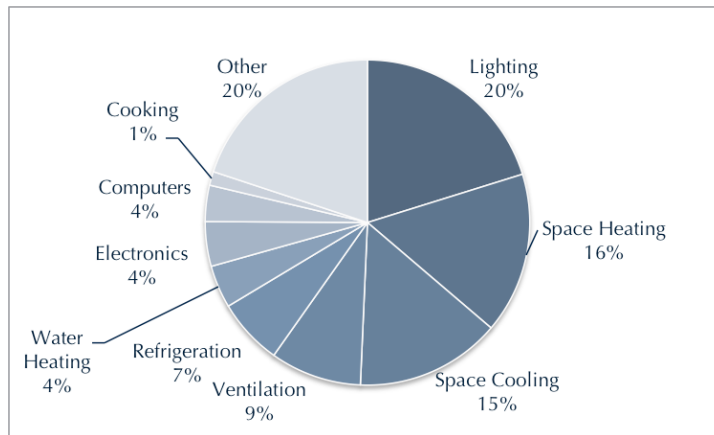 - generate about 40% of total greenhouse gas emissions
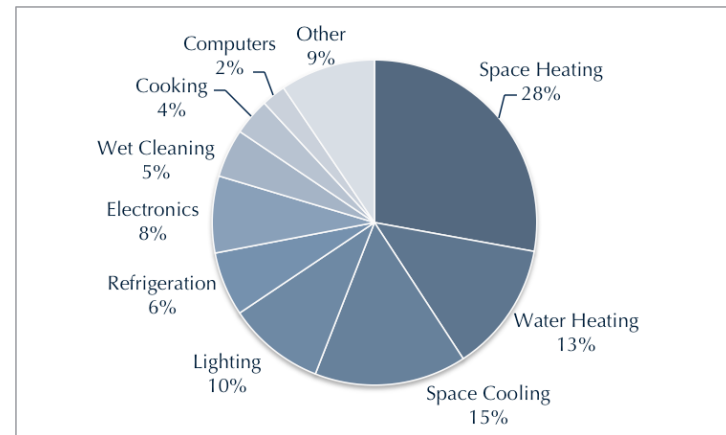
Buildings share of energy consumption

Transportation
28%

Buildings
39%

Industry
33%

Source: US Energy Information

Primary energy end use splits

Commercial

Residential

Green buildings

- is a structure that is designed, built, renovated, operated, or reused in an ecological and resource efficient manner

- help using finite energy resources prudently and reduce the carbon footprints of these buildings

Greening buildings

- use electricity and water efficiently
  - installing solar or geothermal energy systems
  - use of water-harvesting systems
  - use of double-panel windows
  - use of low-flush and dual-flush

- use sustainable materials and resources
  - use of building materials, furnishings, and fixtures with recycled content
  - use of refurbished materials and products
  - use of products (building materials, furniture and consumables) made from natural materials

Scottsdale's Arabian Library - Arizona

Villanueva Public Library - Columbia
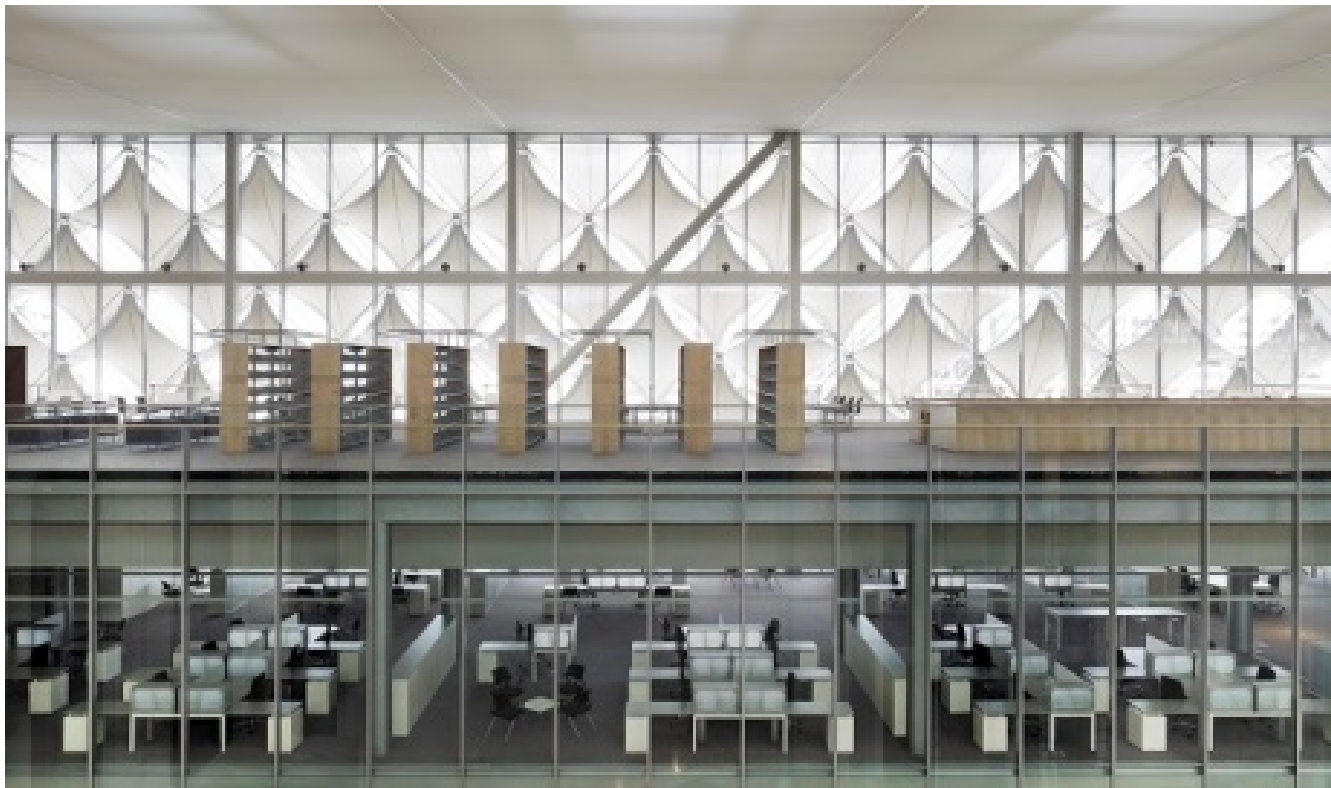
Vennesla Library - Norway

Central Public Library - Singapore

Delft University of Technology Library - the Netherlands

King Fahad National Library – Saudi Arabia

Cambridge Public Library - USA

Green operations & practices

- reusing or donating the items instead of disposing
- separating the waste and providing onsite-recycling collection
- eliminating use of plastics
- reducing paper use and minimizing printing
  - routing print materials rather than making multiple copies
  - setting copier/printer default to duplex
- reusing paper
- using recycled paper

Green operations & practices

- using electronic/digital communication
- using shared e-mail folders as searchable repositories for information and content
- using electronically completed/submitted forms
- using products/consumables with recyclable content
- procuring refurbished items when possible
- purchasing locally
- using environmentally friendly cleaning products instead of toxic chemical cleaners
- using stairs rather than elevators
- re-filling toner cartridges rather than buying new
- recycling toner cartridges and choosing "green" inks

Green operations & practices

- having every-other light off where possible
- installing energy-efficient lighting
- using motion sensors
- shutting down computers when the library is closed to the public
- using LCD monitors
- using natural lighting and ventilation
- choosing and using Energy Star compliant computer components
- consolidating servers in large institutions
- having older computers repaired
- finding reputable recyclers of e-waste

Green programs & services

- collecting and promoting materials with environmental themes
- providing resources and information on green living and environmental issues
- organizing educational outreach programs and workshops on adopting green practices
  - growing food
  - alternative medicines
  - food security
  - recycling

Unusual & creative services

- creating community gardens to educate patrons about successful gardening practices
- maintaining tool-lending (for gardening)
- serving as depository for local seeds
- lending *watt meters* to be checked out by users to measure at home or office how much electricity an electronic appliance consumes (in use and not in use). Main aim of this green service is to help individuals to be aware of their consumption and reduce their electric footprint as well as save money and become energy smart

It's back to school time!
Classes Start Sept. 2

Welcome!
Master Gardener Trainees
Class of 2014

Home   WELCOME!   Resources   Tried and True Plants   Blog   **Our Gardens**   Events   Programs   About Us   MGNV Members

Glencarlyn Library Community Garden

Begun as a Boy Scout Eagle Project in the early 1990's, the garden had fallen into disarray by 1999 when two VCE Master Gardeners began to invest time and energy into its rejuvenation. Today, the Glencarlyn Library Community Garden not only has an intriguing built environment — gazebo, arches, curving brick walk — but is home to several hundred sun and shade perennials (many of which are native plants), over 35 varieties of trees, shrubs, and vines, many bulbs, herbs and medicinals, an exotics garden including huge banana plants, and some annuals that are varied each year.

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Virginia

Community Potluck and Seed Sorting at Sycamore Public Library

March 24, 2014 - What's Going On - no comments

DeKalb County Community Gardens is working in partnership with the Sycamore and the DeKalb Public Libraries to create one of the first seed libraries in the state of Illinois. In preparation for the seed banks there will be community potlucks and seed sorting events held at each library.

The first will be held at the Sycamore Public Library on Tuesday March 25th at 6pm. It is free and open to any one who is interested. At the event there will be time to talk and share

the various food items that people bring. Then seeds will be sorted from large containers into various small envelopes. The envelopes will be labeled and then made available for check out on and after Earth Day, April 22nd. Members of the community will be able to check out seeds, plant them, and use the vegetables. They will be instructed on how they can collect and save the seeds in the fall. They are then asked to bring some of the collected seeds back to the library, where they can be shared with others next spring.

Seed lending libraries are becoming more popular as more people are concerned about growing more of their own food for health, economic, or environmental reasons; or simply because fresh grown produce tastes so much better.
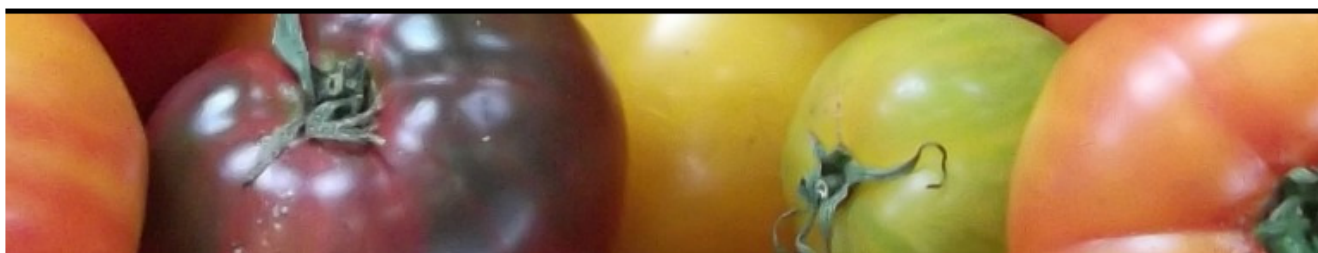
The Seed Library | Cuisine Unlimited Inspired

August 8, 2012

Richmond Grows Seed Lending Library

Not from the Greater Richmond California Area?

It's easy to **create your own** seed lending library or locate a **sister seed library.**

What's a Seed Lending Library?

Come to the Richmond Public Library, Richmond, Calif. and "borrow" seeds for free! You may be asking, "How can you 'borrow' seeds?" The basic is idea is that you plant the seeds, let some go to seed, then return some of these next generation

Organic Gardening Basics Class

Wed., Sept. 24th 6:30-8PM
Richmond Public Library, Community Room
Free but please register

Learn the basics of how to grow organic vegetables. This

Tool Lending Library

Home

Branch Address

5205 Telegraph Avenue
Oakland, CA 94609
(510) 597-5089

Branch Hours

Monday: Closed
Tuesday: 12:30pm - 8:00pm
Wednesday: 10:00am - 5:30pm
Thursday: 10:00am - 5:30pm
Friday: 12:00pm - 5:30pm
Saturday: 10:00am - 5:30pm
Sunday: Closed

About the Tool Lending Library

The Oakland Tool Lending Library currently offers over 3,500 tools available for loan, as well as books and how-to videos and DVDs. The tools can be used for a variety of purposes, including home improvement, remodeling and repairs, gardening and landscaping and seismic retrofit. This is a free service to Oakland, Emeryville, and Piedmont residents and property owners.

Using the Tool Lending Library

Before visiting the Tool Lending Library for the first time, please review the following guidelines and registration instructions.

Thursday, March 22, 2012

Tool Lending Library Opens at Temporary Site

You may have read on our website, the temporary location of our well-used Tool Lending Library has opened! Read all about it, and watch a great video!!

The new front desk at the temporary Tool Lending Library at 2525 8th Street, Suite 12A, complete with fantastic staff!

More Information

- BranchVan Schedules
- Friends of the Berkeley Public Library
- Berkeley Public Library Foundation
- About the Branch Improvement Program
- About Measure FF and the Library Bond
- Comments

Save Money on Your Electricity Bill by Checking Out a Kill-A-Watt Meter

Libraries are known for helping you save money, but now your county library can help you save money on your electricity bill.

The Tuscarawas County Public Library System, in partnership with AEP Ohio, has begun lending out a device that can assist consumers in making

energy conservation decisions in their homes. In fact, the device the library is lending out is a "Kill-A-Watt" meter. In other words, how the library can help you Kill-A-Watt (or two).

"We are pleased to be the second library system in the state offering these devices for check out to library customers," said Michelle McMorrow Ramsell. "Libraries have always been about helping to educate and to save our customers money. Offering the Kill-A-Watt meters to the public is a natural fit for libraries."

The Tuscarawas County Public Library System is lending out a total of 15 Kill-A-Watt meters among its five locations. The meters are packaged in kits, each of which include an operations manual and a worksheet to help users calculate energy costs associated with household devices and small appliances.

Administrative Assistant Rachel Leishman worked with AEP to bring the meters to Tuscarawas County.

YES! YOUTH ENERGY SUMMIT
PUT ENERGY INTO OUR FUTURE

Lending Library

Posted by Aleta on March 20, 2012 · Leave a Comment

By Pakou Vue, WWG student

The Westbrook-Walnut Grove Earth Y.E.S class is donating energy-monitoring devices to the Westbrook Public Library this Monday, March 19th. Visitors will be able to check out these devices with their library card, and will come with instructions on how to use them. We are calling this the "Lending Library".

The devices that we have so far are:

▸ Heat sensors: Allow you to see the temperature of an object to observe where you are losing heat (energy).

▸ Kill-A-Watt Meters: Tells you how much wattage any give device is using while plugged in.

▸ Microwave leakage detector: Alerts you to how much radiation is being released by your microwave.

▸ Pipe thermometers: Also tells you how much heat you are losing on pipes.

Search the site

[   ] Search

Links

Green information systems

- there is an information retrieval system behind every IS that provides access to the information and in return consumes energy and generates CO_2 emission

- Information systems and services make extensive use of ICT

- increased use of ICT has a significant impact on energy consumption and greenhouse gas emission

Estimates for environmental impact of ICT

- a typical computer running for a day (24 hours) creates 494 kg CO2
- hosting a mere 10MB of data produce 2-1/2 kilos of CO2
- the energy consumed by servers and data centers is doubled over five year's time and the infrastructure for these data centers requires electricity for power and cooling, and they "can be more than 40 times as energy intensive as conventional office buildings
- the Internet consumes between 170 and 307 GW (Giga Watt) of electricity which is equivalent to 11-19% of the total energy usage of the humanity

Estimates for environmental impact of ICT

- a Google search causes between 1g-10g (gram) CO2 emissions depending on the time involved and the equipment used as well as whether the equipment/computer is started or not
- Billions of searches are conducted daily to find information not only on the web, but also on library catalogs, databases, institutional repositories, e-resources such as books and journals
- Google estimates several billions of search (about 6 billion in 2013) per day
- In 2010 Google's total electricity consumption was 2.26 million MWh

Key enablers of green IR

- standardization in processes and practices

- sharing resources (cloud computing)

- reusing content and tools

- green user behavior with regard to energy usage, business practices, and lifestyle

Green collections & collection development

- selection

- de-selection

- material format

Selection & de-selection

- *Selection* is about building up collections on environmental issues (green computing, organic gardening, energy conservation, etc.)

- *De-selection* is weeding of outdated or worn library materials. Green de-selection is about recycling and reusing weeded materials

Material format:
Print versus electronic

- There has been a long debate regarding their environmental impact (carbon footprint)

- there are numerous studies which compare the two formats by listing the benefits each type brings

- there are contradicting opinions about their environmental friendliness

- both have positive and negative impacts

Environmental impact of print sources

- harvesting trees (which would otherwise serve as CO_2 storage)

- producing paper

- publishing and transporting published materials

- in US paper manufacturing consumes over 15% of all the energy used by all types of manufacturing process

- Publishers today participate in Green Print Initiative by using recycled paper and harvesting fewer trees

Environmental impact electronic sources

- storage and distribution of data (electricity used in user end and data centers)
- the world's ICT ecosystem uses about 1,500 TWh of electricity annually, equal to all the electric generation of Japan and Germany combined
- The zettabyte era already uses about 50% more energy than global aviation
- e-waste disposal
- toxic clean-up (lead, mercury, cadmium)
- multiplying digital copies (forwarding, creating several copies)
- Increased paper use (printing digital material)

Information literacy & environment

- information literacy (as a meta literacy) is closely linked with environmental literacy
- information literacy skills help to develop and improve environmental literacy skills
- information literacy helps accessing and selecting the most relevant, current and reliable information sources to make well informed decisions on environmental issues
- critical thinking helps to critically evaluate information on environmental issues
- critical thinking helps to perceive and interpret the relative health of environmental systems

Information literacy & environment

- even unintentionally, information literacy skills facilitate going green by pursuing knowledge and practices that can lead to more environmentally friendly actions

- advanced search skills help to develop better search strategies, which, in turn, bring better results in a shorter time span, and leave fewer carbon footprints

Green information literacy

- is a set of conventional skills expanded to include sustainable thinking

- sustainable thinking -considering how our information behavior, choices and actions affect environment- is indispensable and additional component of green information literacy

Sustainable thinking

- is as important as critical thinking

- placing it among the core components of information literacy materializes transformation towards green information literacy

- hence, individuals will be more aware of the impact of their information behaviors on ecological, economic, and social systems and this will lead to more ecologically responsible actions, which can help protect the environment

Green information literacy instruction

- embracing green operations and practices

- embedding sustainable thinking

- raising awareness by using green topics and resources as the basis for information literacy instruction sessions

Embracing green operations & practices

- using resources (materials and energy) prudently and reducing carbon footprints (the amount of greenhouse gases) produced during instructional activities
- reducing or reusing of paper by reduced distribution of printed flyers and training material (printing on-demand)
- using both sides of the papers
- using recycled paper
- using re-usable utensils during the breaks
- collecting in the end of the sessions and re-using training materials
- turning off lights when the instruction session ends
- switching off computers and monitors after the instruction
- using natural lighting and ventilation when possible
- collecting recyclable waste which is produced during the sessions and make sure they are recycled

Embedding sustainable thinking

- it is about making users concious about how to go green while searching, selecting, using and communicating information

- information literacy instruction is a good opportunity for libraries to help users to shift their thinking towards sustainability

- this can be carried out by demonstrating factual figures and drawing their attention to environmental impacts of their information behaviors and actions.

Embedding sustainable thinking

- presenting facts and figures on environmental impact of IL actions (energy comsumption and CO2 emission generated) will increase the awareness and motivation of users to act responsibly in all activities where they use their information literacy skills

    - by a web search while teaching how to develop effective search strategies
    - paper vs electronic sources
    - the use of ICT

Conclusions

- understanding the impact of everyday information choices on the environment becomes more important

- instruction librarians can play a key role here by fostering sustainable thinking into information literacy instruction

Conclusions

- we need to recognize the need for more information on the concept of green information literacy and how information literacy instruction can embrace sustainable thinking

- very little written on this subject and further research is needed to elaborate more on the possible practices

Conclusions

- we expect that this study will pave the way for further research

- we like to invite information literacy experts, instructors and researchers to think about it and discover new dimensions to its definition and practice

Recommendations

- promoting scholarly research
- developing expertise in environmental issues and green library practices
- embedding sustainable thinking into information literacy concept and instruction
- adapting information literacy standards to embrace environmental view-points and sustainable thinking
- writing reports on how information literacy instruction can support environmental sustainability and sharing them with the decision makers to get support
- embedding sustainability into information literacy policy documents as well as library policy and strategic planning
- collaboration for information literacy instruction with faculty in disciplinary areas which touch on studies of the environment and sustainability
- compiling factual information on the impact of information behaviors and actions on environment and presenting and sharing these information widely with the users
- exploring means of sharing ideas on *going green* in information literacy activities

Final words

- green information literacy and greening information literacy instructional initiatives can contribute, in different ways, to the creation of a greener environment, and should be seen as an important component of the Green Library Movement

Thanks