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Using Wikipedia in offline Peruvian schools

Wikimania 2009

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Introduction



ONE LAPTOP PER CHILD



Overview

One Laptop per Child is:

- A non-profit educational foundation
- In 20 countries worldwide
- Deployments are owned by national/local initiatives

Overview

Peru:

- Run by the Ministry of Education
- Starting with most-rural schools
- Offline library and WP snapshot on every laptop

WP has been integrated into the 3rd-4th grade curriculum for OLPC schools.
(ex: environment, health, reporting)



ONE LAPTOP PER CHILD



Overview

Three points:

- About OLPC
- Wikipedia in Peruvian classes
- Offline readers & technical notes

Logistics

Interrupt me at any time

Logistics

Interrupt me at any time
... so you don't forget!

Logistics

Questions?

About OLPC

olpc is about empowering children to learn.

Five Principles:

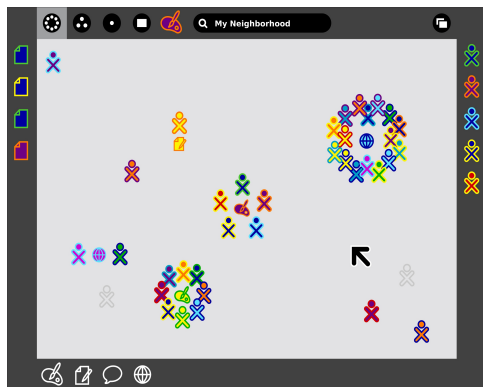
- Child ownership
- Low ages
- Saturation
- Connection
- Free and open source

OLPC laptop: the XO

- Safe, rugged, lightweight, low power
- Usable in bright sunlight
- Children can maintain and repair themselves
- All open source software.



Learning interface: Sugar



Sharks

by Nittaya, Jaruwan, Yupin, Viroj



In some form, sharks have been around for about 400 million years. Even before dinosaurs roamed the earth, sharks hunted through the oceans! They're such good survivors that they've had little need to evolve in the last 150 million years. These ancient predators fascinate adults and children alike. Sharks have the most powerful jaws on the planet. Unlike most animals' jaws, both the sharks' upper and lower jaws move.

A shark bites with its lower jaw first and then its upper. It tosses its head back and forth to tear loose a piece of meat which it swallows whole. Each type of shark has a different shaped tooth depending on their diet. (The shark in the photo is a great white—you can tell he's a carnivore just by looking at those sharp, pointy teeth!)

A shark may grow and use over 20,000 teeth in its lifetime! Sharks never run out of teeth. If one is lost, another spins forward from the rows and rows of backup teeth. Normally, sharks eat alone. But sometimes one feeding shark attracts others. They swim up as quickly as possible and all begin to try to get a piece of the prey. They bite wildly at anything that gets in their way—even each other.

The great white shark rarely partakes in feeding frenzies. Almost all sharks are "carnivores" or meat eaters. They live on a diet of fish and sea mammals (like dolphins and seals) and even such prey as turtles and seagulls. Sharks even eat other sharks. For example, a tiger shark might eat a bull shark, a bull shark might eat a blacktip shark and a blacktip shark might eat a dogfish shark!

Sugar and SugarLabs

Sugar is supported by its own non-profit: Sugar Labs

- Sugar is also developed for other platforms
- New OLPC laptops offer both Sugar and GNOME (on Fedora Linux)

About OLPC

OLPC in Latin America:

- Peru – 65k rural schools of 300k
- Uruguay – the first country to realize *olpc* : **Plan Ceibal**
- Paraguay, Mexico, Colombia

About OLPC

OLPC in sub-saharan Africa:

- A learning center in Rwanda
- Ethiopia, Ghana, Nigeria

About OLPC

Questions?

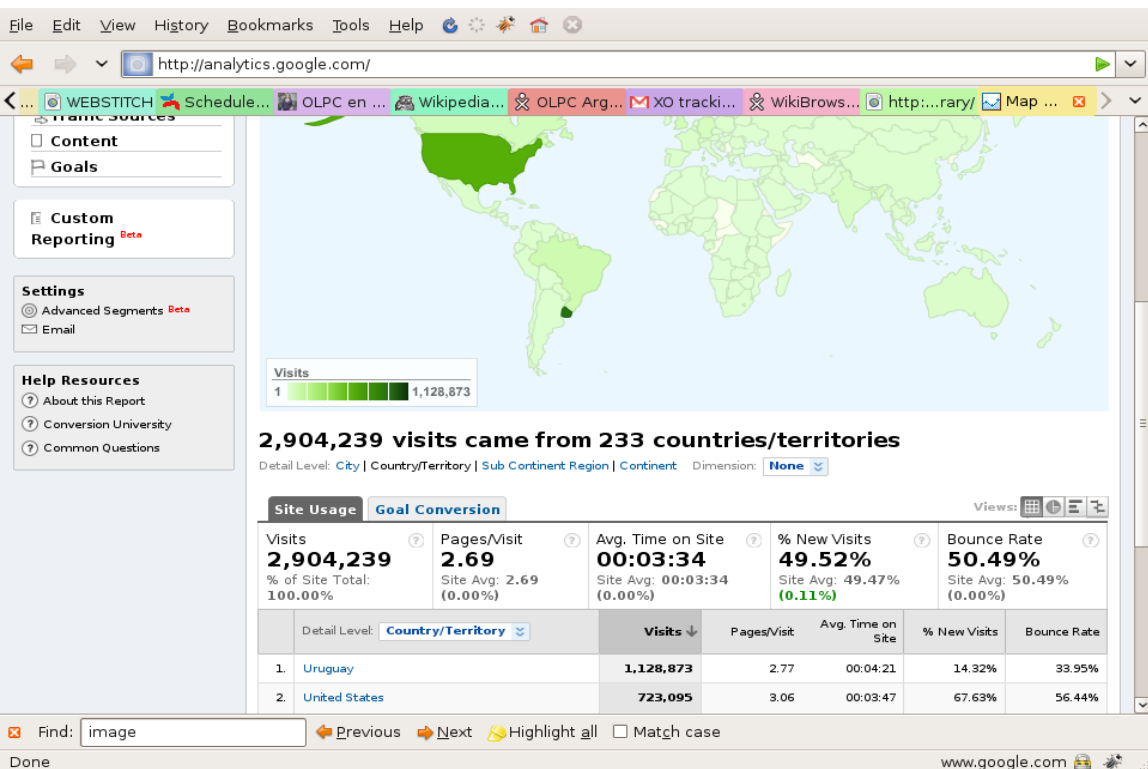
Wikipedia in Peru

- Started with 65k rural students and teachers, and an snapshot of WP.
- Rural schools: 2-6 *days* from the Internet.

...and Uruguay

WP is also used in Uruguay, but their schools are primarily online.

... very much online!



Wikipedia in Peru

We designed WikiBrowse: an compact offline reader.

- 40k articles / 1k images in 100M
- English and Spanish versions



Ciencia: Astronomía · Física y Química



Estrella · Luna · Planeta · Sol · Universo
Calor · Color · Energía · Fuerza · Luz
Movimiento · Sonido · Tiempo
Agua · Átomo · Elementos · Fuego
Materia · Medición · Metal

Ciencias Sociales



Antropología · Arqueología · Sociología
Derecho · Gobierno · País · Política
Comercio · Dinero · Economía
Amor · Emoción · Psicología · Sueño

Humanidades



Alfabeto · Comunicación · Lenguaje
Medio de comunicación
Filosofía · Historia · Historia universal
Mitología · Religión
Arte · Arquitectura · Dibujo · Escultura
Cine · Danza · Literatura
Música · Poesía · Teatro

Tecnología



Computadora · Electrónica · Internet
Radio · Telecomunicación · Televisión
Avión · Automóvil · Barco · Tren
Combustible · Electricidad · Ingeniería

Ciencia: Biología y Medicina



Animalia · Bacteria · Célula · Fungi
Plantas · Ser vivo · Virus
Anatomía · Cerebro · Muerte · Salud
Seres humanos · Vida
Agricultura · Ecología · Naturaleza

Cultura y Sociedad



Alimento · Educación · Familia · Ropa
Ciudad · Comunidad · Tradición
Deporte · Humor · Juego

Matemática y Lógica



Aritmética · Geometría · Número
Suma · Resta · Fracción
Multiplicación · División

Tierra y Geografía



Continente · Geología · Mineral · Océano
Clima · Desastre natural · Meteorología
América del Norte · América del Sur
África · Antártida · Asia · Europa ·

Agua

De Wikipedia, la enciclopedia libre · Haz clic aquí si esta página contiene errores de presentación · Esta página contiene material

inapropiado

Para otros usos de este término véase *Agua (desambiguación)*.

El **agua** es un compuesto formado por dos átomos de hidrógeno (H) y uno de oxígeno (O). Su fórmula molecular es H₂O. El agua cubre el 72% de la superficie del planeta Tierra y representa entre el 50% y el 90% de la masa de los seres vivos (aproximadamente el 75% del cuerpo humano es agua, en el caso de las algas el porcentaje ronda el 90%). Es una sustancia relativamente abundante aunque sólo supone el 0,022% de la masa de la Tierra. Se puede encontrar esta sustancia en prácticamente cualquier lugar de la biosfera y en los tres estados de agregación de la materia: sólido, líquido y gaseoso. Se halla en forma líquida en los mares, ríos, lagos y océanos; en forma sólida, nieve o hielo, en los casquetes polares, en las cumbres de las montañas y en los lugares de la Tierra donde la temperatura es inferior a cero grados Celsius; y en forma gaseosa se halla formando parte de la atmósfera terrestre como vapor de agua.

Importancia y distribución

Es fundamental para todas las formas de vida conocida. Los humanos consumen agua potable. Los recursos naturales se han vuelto escasos con la creciente población mundial y su disposición en varias regiones habitadas es la preocupación de muchas organizaciones gubernamentales. El agua cubre tres cuartas partes de la superficie de la Tierra, pese al área por la cual se extiende, la hidrósfera terrestre es comparativamente bastante escasa, para dar un ejemplo citado por Jacques Cousteau: si se sumergiera una bola de billar en agua y se la quitase la película de humedad que quedaría inmediatamente tras ser sacada sería proporcionalmente mayor que la de todos los océanos. El 97 % es agua salada la cual se encuentra principalmente en los océanos y mares, sólo 3% de su volumen es dulce. De



La hidrosfera, el conjunto de aguas de nuestro planeta, permite la vida y depende del equilibrio del ecosistema.



Wikipedia in Peru

It is used in a national curriculum integrating individual research into many courses.

Examples:

- *Periodista XO*
- *Cuidemos Nuestro Medio Ambiente*
- *Yo cuido mi cuerpo, cuido mi salud*

Wikipedia in Peru

Questions?

WikiReader tools

- Wikipedia on iPhone : Patrick Collison
(2M en:wp articles in 2GB)
- WikiBrowse on OLPC: Chris Ball, Wade Brainerd (40k articles in 100MB)
 - Distinguishes online and offline links; can be used offline, but shows what is available online.
 - Supports customized definition of total size

WikiReader tools

- partial decompression / indexing of bzip2
- fast prefix & substring matching w/a single compressed index, for fast title search
- efficient preprocessing and rendering of MediaWiki markup, allowing use of a fast single-pass parser
- Article selection: by popularity (works ok!)

WikiReader tools

Current issues:

A bit slow, too few images, no full-text search, **NO WAY TO EDIT.**

Mailing list (all platforms):

wikireader@lists.laptop.org

WikiReaders... in the future

Infoslicer – a new project

- Designed for editing and remixing
- Browse a collection, copy sections from articles, edit in Abiword
- Save and publish you work!



Actividad

Library

Edit

Wiki



Lion (from en.wikipedia.org)

Tiger (from en.wikipedia.org)

Giraffe (from en.wikipedia.org)

Zebra (from en.wikipedia.org)

Custom

☒ Lion-giraffe☐ Giraffe☐ wayan's world

The lion (*Panthera leo*) is a member of the family Felidae and one of four big cats in the genus *Panthera*. With exceptionally large males exceeding 250 kg (550lb) in weight, it is the second-largest living cat after the tiger. Wild lions currently exist in Sub-Saharan Africa and in Asia with a critically endangered remnant population in northwest India, having disappeared from North Africa, the Middle East, and Western Asia in historic times. Until the late Pleistocene (about 10,000 years ago), the lion was the most widespread large land mammal beside humans. They were found in most of Africa, much of Eurasia from western Europe to India and, in the Americas, from the Yukon to Peru.

Scientific classification

Scientific Classification of the lion-giraffe



230px-Lion-Giraffe_standing.jpg

Highly adaptable, tigers range from the Siberian taiga, to open grasslands, to tropical mangrove swamps. They are territorial and generally solitary animals, often requiring large contiguous areas of habitat that support their prey demands. This, coupled with the fact that they are endemic to some of the

Infoslicer goals

Future goals:

- Merging published work with Wikipedia (three-way merge)
 - MikMik (Mako Hill)
- Adding images from a camera



Questions + Answers

Be bold!



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