



ASIST 2014 – Seattle

[www.accessinn.com](http://www.accessinn.com)

[www.dataharmony.com](http://www.dataharmony.com)

505-998-0800

Marjorie M.K. Hlava

President and Chief Scientist

Access Innovations, Inc.

# Linked Data: Making it a Reality



# What we do

## □ Access Innovations

- Ensure clean, well formed content
- Create Knowledge Organization Systems (KOS)

## □ Data Harmony Tools

- To automatically index content
- To manage KOS and more
- To semantically enrich the content
- To organize the content

## □ Access Integrity

- Automated Medical Coding Support



# Linked Data: Many definitions

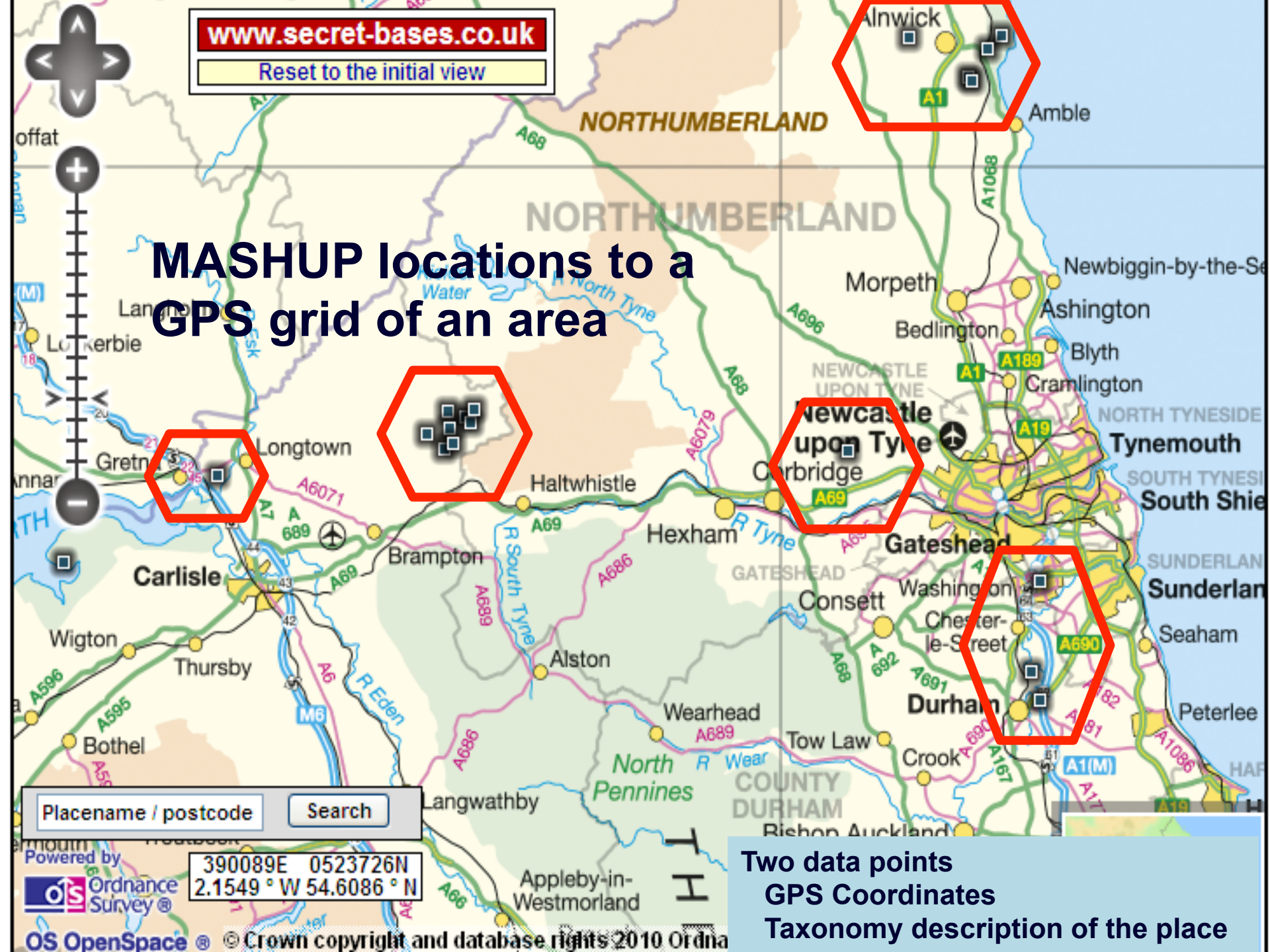
- ❑ Mash Ups
- ❑ Live linking from multiple sources
- ❑ Linking out to external datasets
- ❑ Linking persistent URIs to datasets
  - Linked Data Repositories
- ❑ Defining relationships in RDF triples
  - Taxonomies, thesauri, ontologies
  - Triple stores
  - SKOS or OWL format



[www.secret-bases.co.uk](http://www.secret-bases.co.uk)

Reset to the initial view

# MASHUP locations to a GPS grid of an area



Placename / postcode

Search



OS OpenSpace

390089E 0523726N  
2.1549 ° W 54.6086 ° N

© Crown copyright and database rights 2010 Ordnance

Two data points

GPS Coordinates

Taxonomy description of the place



# Live linking from multiple sources





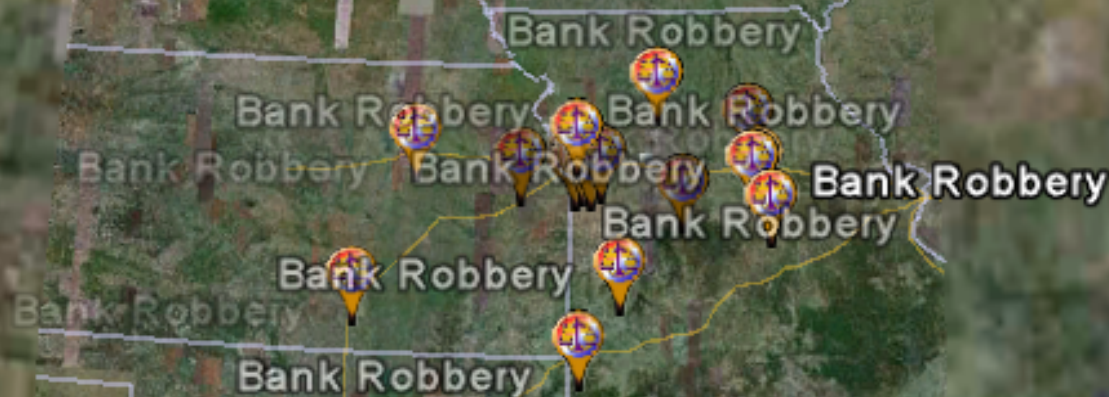
# Watch Crime in Action

© 2010 Europa Technologies  
US Dept of State Geographer  
© 2010 Tele Atlas  
© 2010 Google

©2010 Google



# Time, Place, Type of Activity



A satellite map showing a region with several locations marked as 'Bank Robbery'. The labels are placed over a landscape with green fields and some buildings. The labels are arranged in a cluster in the center-left of the map. There are also several location pins (red and yellow) placed near the labels. The map is part of a larger interface, as evidenced by the navigation controls in the top right corner.

Bank Robbery

Bank Robbery

Bank Robbery

Bank Robbery

Bank Robbery

Bank Robbery

Bank Robbery

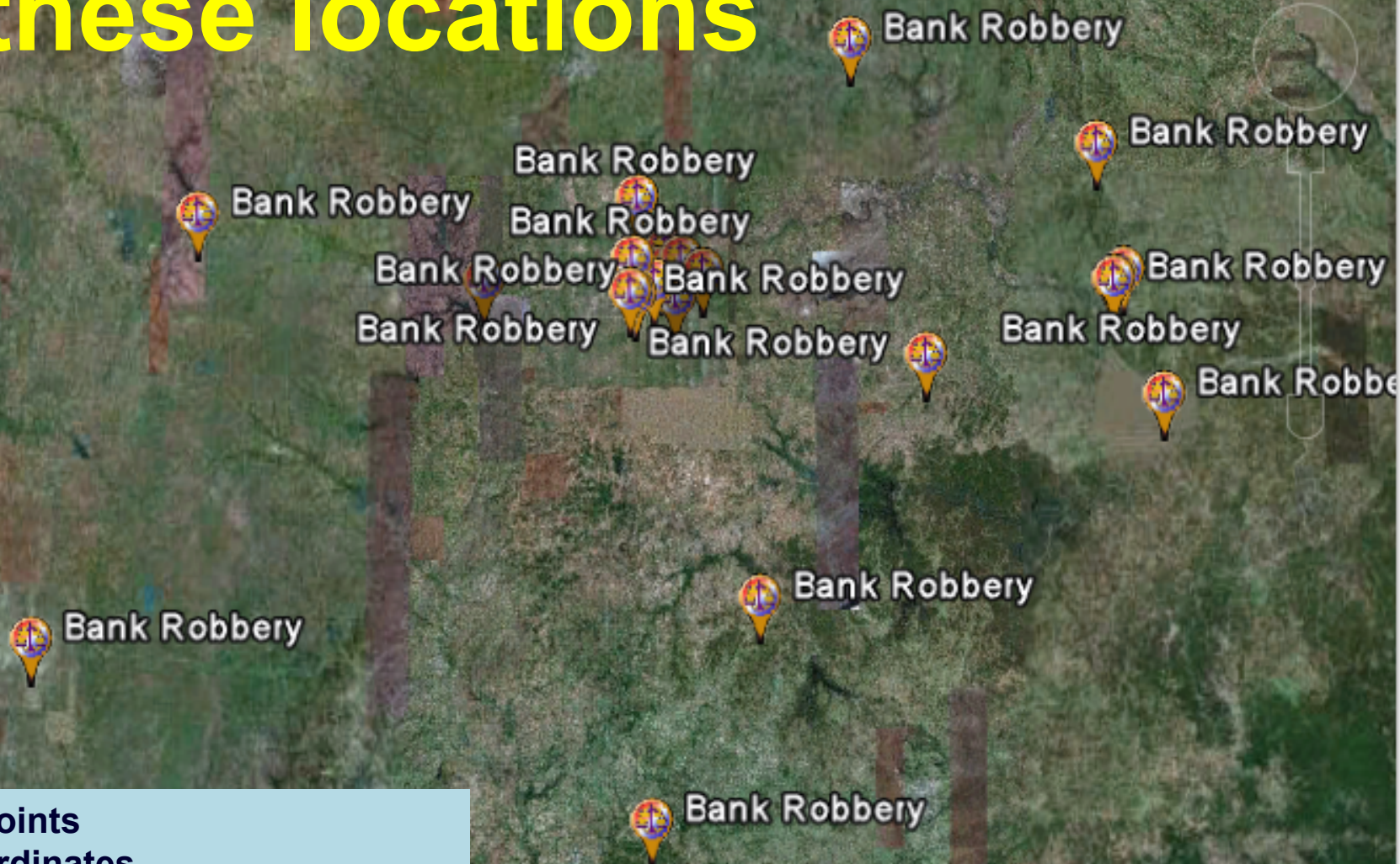
Bank Robbery

Bank Robbery

Bank Robbery



# Consider more personnel at these locations



- Two data points
- GPS Coordinates
- Taxonomy description of the crime



# Points to Linked Data

- ❑ Point to relevant resources via URL's
- ❑ Leverage the thesaurus for rich ontology
- ❑ Link to other data repositories
  - Databases
  - People nets
  - Resource files
  - DBpedia





# More Like This - Recommender

## Cancer Epidemiology Biomarkers & Prevention

Vol. 12, 161-164,

February 2003

© 2003 [American Association for Cancer Research](#)

Short Communications

Alcohol, Folate, Methionine, and Risk of Incident Breast Cancer

American Cancer Society Cancer Prevention Study II Nutrition Cohort

Heather Spencer Feigelson<sup>1</sup>, Carolyn R. Jonas, Andreas S. R. Olsen

Marjorie L. McCullough, Michael J. Thun and Eugenia E. Calle

Division of Epidemiology and Surveillance Research, American Cancer Society

National Home Office, Atlanta, Georgia 30329-4251

Recent studies suggest that the increased risk of breast cancer associated

with alcohol consumption may be reduced by adequate folate intake.

We examined this question among 66,561 postmenopausal women in the

American Cancer Society Cancer Prevention Study II Nutrition Cohort.

### Related Working Groups

- [Finance](#)
- [Charter](#)
- [Molecular Epidemiology](#)

### Think Tank Report

[Related Think Tank Report Content](#)

### Webcasts

[Related Webcasts](#)

### Related Awards

- [AACR-GlaxoSmithKline Clinical Cancer Research Scholar Awards](#)
- [ACS Award](#)
- [Weinstein Distinguished Lecture](#)

### Related Press Releases

- [How What and How Much We Eat \(And Drink\) Affects Our Risk of Cancer](#)
- [Novel COX-2 Combination Treatment May Reduce Colon Cancer Risk Combination Regimen of COX-2 Inhibitor and Fish Oil Causes Cell Death](#)
- [COX-2 Levels Are Elevated in Smokers](#)

### Related AACR Workshops and Conferences

- [Frontiers in Cancer Prevention Research](#)
- [Continuing Medical Education \(CME\)](#)
- [Molecular Targets and Cancer Therapeutics](#)

### Related Meeting Abstracts

- [Association between dietary folate intake, alcohol intake, and methylenetetrahydrofolate reductase C677T and A1298C polymorphisms and subsequent breast cancer risk](#)
- [Folate, folate cofactor, and alcohol intakes and risk for colorectal adenoma](#)
- [Dietary folate intake and risk of prostate cancer in a large prospective cohort study](#)

### Related Education Book Content

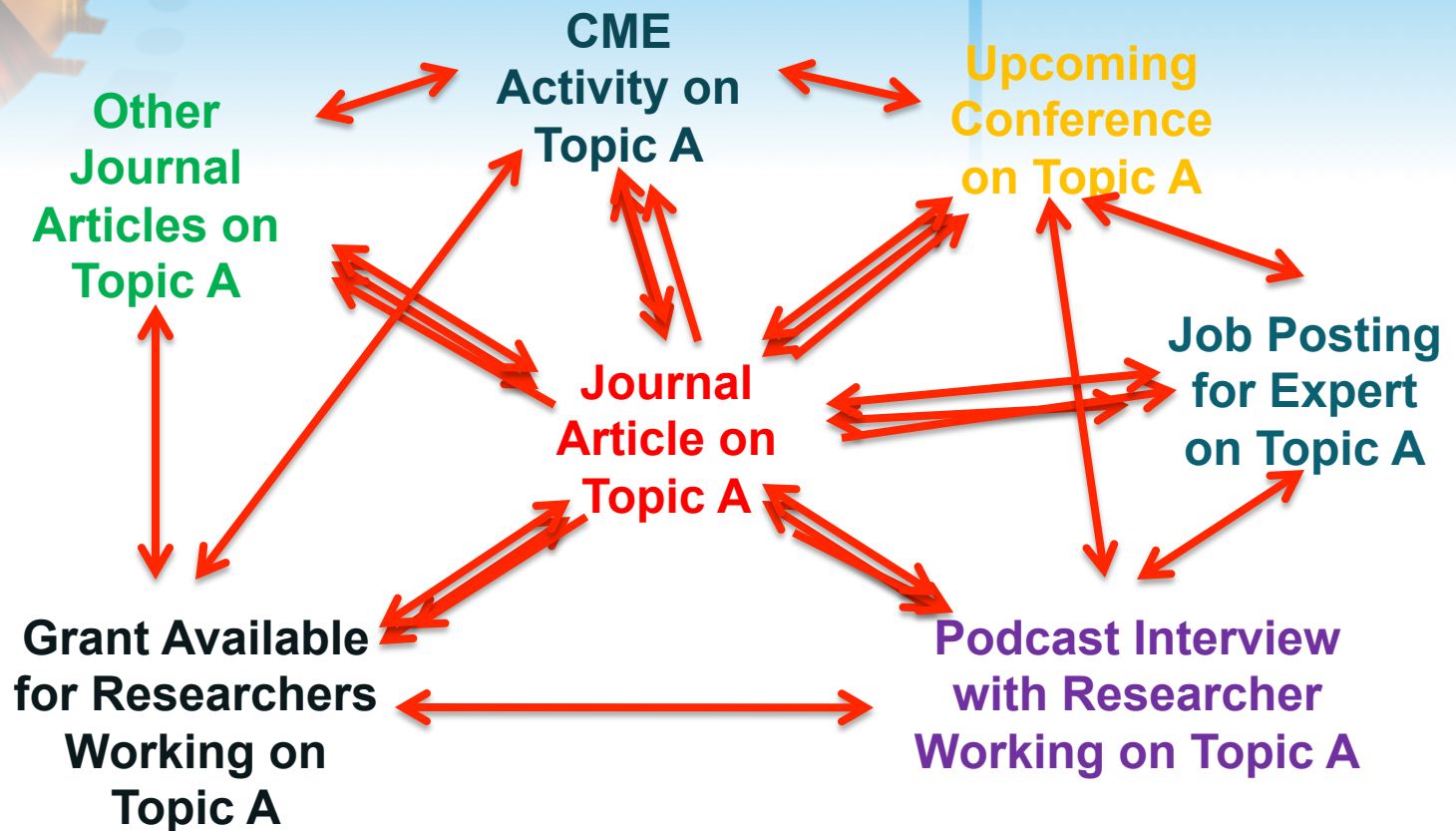
[Oral Contraceptives, Postmenopausal Hormones, and Breast Cancer](#)

[Physical Activity and Cancer](#)

[Hormonal Interventions: From Adjuvant Therapy to Breast Cancer Prevention](#)



# Link to Society Resources



## Selected Article Search “thin film sputtering”

Tianzhuo Zhan<sup>1</sup>, Yibin Xu<sup>1</sup>, Masahiro Goto<sup>1</sup>, Yoshihisa Tanaka<sup>1</sup>, Ryoza Kato<sup>1</sup>  
Michiko Sasaki<sup>1</sup> and Yutaka Kagawa<sup>1</sup>

### ABSTRACT

We measured the thermal conductivity of amorphous Ge films prepared by magnetron sputtering. The thermal conductivity was significantly higher than the value predicted by the minimum thermal conductivity model and increased with deposition temperature. We found that variations in sound velocity and Ge film density were not the main factors in the high thermal conductivity. Fast Fourier transform patterns of transmission electron micrographs revealed that short-range order in the Ge films was responsible for their high thermal conductivity. The results provide experimental evidences to understand the underlying nature of the variation of phonon mean free path in amorphous solids.

## More Articles on the same topic

### F Multinomial models of speech perception

Court S. Crowther and William H. Batchelder

J. Acoust. Soc. Am. **97** , 3362 (1995) ; <http://dx.doi.org/10.1121/1.412685>

[+ VIEW DESCRIPTION](#)

Competition between continuous etching and surface passivation for Cl<sub>2</sub> chemisorption onto GaAs(100) c(8×2), GaAs(100) c(2×8), and GaAs(110) (1×1) surfaces

Daniel J. D. Sullivan, Harris C. Flaum and Andrew C. Kummel

J. Chem. Phys. **101** , 1582 (1994) ; <http://dx.doi.org/10.1063/1.467779>

[+ VIEW DESCRIPTION](#)

### F The effect of face and lip inversion on audiovisual speech integration

Deborah A. Yakel, Lawrence D. Rosenblum, Kerry P. Green, Chantel L. Bosley and Rebecca A. Vasquez

J. Acoust. Soc. Am. **97** , 3286 (1995) ; <http://dx.doi.org/10.1121/1.411550>

## Grants available

### Innovative Cadmium Telluride Solar Cells on Thin Film ...

[www.iowaenergycenter.org/innovative-cadmium-telluride-solar-cells-on-...](http://www.iowaenergycenter.org/innovative-cadmium-telluride-solar-cells-on-...)

Innovative Cadmium Telluride Solar Cells on Thin Film. Grant # 98-07. Principal Investigator: Vikram L. Dalal, P.I.. Organization: Iowa State University Students: ...

### Research on thin-film solar cells heats up at UCSC - UC ...

[news.ucsc.edu/2010/.../solar-cells.ht...](http://news.ucsc.edu/2010/.../solar-cells.ht...) University of California, Santa Cruz

Nov 2, 2010 - She was awarded five new grants this year totaling more than \$1 million to ... Her lab uses thin-film technologies and printable semiconductor ...

## Upcoming conferences on this topic

### Protective coatings and Thin films'13 - EMRS

[www.emrs-strasbourg.com/index.ph...](http://www.emrs-strasbourg.com/index.ph...) European Materials Research Society

Meetings. 2014 Spring Meeting · 2014 Fall Meeting · 2015 Spring Meeting · 2015 Fall

... For 2013, particular emphasis is placed on the fundamentals of thin film ...

### EMRS - Strasbourg - SPRING 14 A: Thin film chalcogenide ...

[www.emrs-strasbourg.com/index.ph...](http://www.emrs-strasbourg.com/index.ph...) European Materials Research Society

The Thin Film Chalcogenide Photovoltaic Materials Symposium 2014 will closely ... grown to become one of the largest symposia of the E-MRS spring meetings.

### Program - Symposium C: Thin-Film Compound ...

<https://www.mrs.org/s13-program-c/>

Symposium C: Thin-Film Compound Semiconductor Photovoltaics is a symposium from the 2013 MRS Spring Meeting in San Francisco, California.

## Authors working in this space

[Gibson, William](#) (4)

[dir.yahoo.com/.../Science\\_Fiction\\_and\\_Fantasy/Gibson\\_\\_William](http://dir.yahoo.com/.../Science_Fiction_and_Fantasy/Gibson__William)

[Asimov, Isaac \(1920-1992\)](#) (10)

[dir.yahoo.com/.../Science\\_Fiction\\_and\\_Fantasy/Asimov\\_\\_Isaac\\_\\_1920\\_1992\\_](http://dir.yahoo.com/.../Science_Fiction_and_Fantasy/Asimov__Isaac__1920_1992_)



- ❑ Definition of the concept
- ❑ Links to concept pages in other sources (OSA, SPIE, IOP, AIP, etc.)
- ❑ Link to Journals that publish on the subject
- ❑ People and companies in the space
- ❑ *Optics* DBpedia  
<http://dbpedia.org/page/Optics>
- ❑ Etc.



PLOS

ONE

Subject Areas

For Authors

About Us

Search

advanced search

3,011

VIEWS

4

CITATIONS

31

SAVES

Bacterial Chemotaxis in an Optical Trap

Tuba Altındal, Suddhashil Chattopadhyay, Xiao-Lun Wu

Published: April 08, 2011 • DOI: 10.1371/journal.pone.0018231

Article

About the Authors

Metrics

Comments

Related Content

Download PDF

dbpedia.org/page/Optics

AppsThe 1998 ACM ...WS SKOS/Datasets ...Affiliations Curr...Affs Revised 20...ORCIDAIP Scitation: S. Vep...AIPP / Access In...Open Source W...Oxford DemoSearch HarmonychemicalsYahoo Groups» Other b

About: **Optics**  
An Entity of Type : [Thing](#), from Named Graph : <http://dbpedia.org>, within Data Space : [dbpedia.org](#)

Optics is the branch of physics which involves the behaviour and properties of light, including its interactions with matter and the construction of instruments that use or detect it. Optics usually describes the behaviour of visible, ultraviolet, and infrared light.

Property	Value
dbpedia-owl:abstract	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>Optics is the branch of physics which involves the behaviour and properties of light, including its interactions with matter and the construction of instruments that use or detect it. Optics usually describes the behaviour of visible, ultraviolet, and infrared light. Because light is an electromagnetic wave, other forms of electromagnetic radiation such as X-rays, microwaves, and radio waves exhibit similar properties. Most optical phenomena can be accounted for using the classical electromagnetic description of light. Complete electromagnetic descriptions of light are, however, often difficult to apply in practice. Practical optics is usually done using simplified models. The most common of these, geometric optics, treats light as a collection of rays that travel in straight lines and bend when they pass through or reflect from surfaces. Physical optics is a more comprehensive model of light, which includes wave effects such as diffraction and interference that cannot be accounted for in geometric optics. Historically, the ray-based model of light was developed first, followed by the wave model of light. Progress in electromagnetic theory in the 19th century led to the discovery that light waves were in fact electromagnetic radiation. Some phenomena depend on the fact that light has both wave-like and particle-like properties. Explanation of these effects requires quantum mechanics. When considering light's particle-like properties, the light is modelled as a collection of particles called "photons". Quantum optics deals with the application of quantum mechanics to optical systems. Optical science is relevant to and studied in many related disciplines including astronomy, various engineering fields, photography, and medicine (particularly ophthalmology and optometry). Practical applications of optics are found in a variety of technologies and everyday objects, including mirrors, lenses, telescopes, microscopes, lasers, and fibre optics.</div></div></div></div>
dbpedia-owl:thumbnail	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>http://commons.wikimedia.org/wiki/Special:FilePath/Light_dispersion_of_a_mercury-vapor_lamp_with_a_fint_glass_prism_IPNr*0125.jpg?width=300</div></div></div></div>
dbpedia-owl:wikiPageExternalLink	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>http://optics.byu.edu/textbook.aspx</div><div>http://www.cvmls.freesriort.com/products/Documents/TechnicalGuide/fundamental-Optics.pdf</div><div>http://www.iop.org/publications/iop/index.html</div><div>http://www.iop.org/publications/iop/2009/page_38205.html</div><div>http://www.lightandmatter.com/area1book5.html</div><div>http://www.epic-assoc.com</div><div>http://www.myeos.org</div><div>http://www.optics2001.com</div><div>http://www.osa.org</div><div>http://www.osiindia.org</div><div>http://www.spie.org</div></div></div></div>
dbpedia-owl:wikiPageID	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>22483</div><div>(xsd:integer)</div></div></div></div>
dbpedia-owl:wikiPageRevisionID	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>605920324</div><div>(xsd:integer)</div></div></div></div>
dbprop:hasPhotoCollection	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>http://wifo5-03.informatik.uni-mannheim.de/flickrwappr/photos/Optics</div></div></div></div>
dcterms:subject	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>category:Applied_and_interdisciplinary_physics</div><div>category:Electromagnetic_radiation</div><div>category:Natural_philosophy</div><div>category:Optics</div></div></div></div>
rdfs:comment	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>Optics is the branch of physics which involves the behaviour and properties of light, including its interactions with matter and the construction of instruments that use or detect it. Optics usually describes the behaviour of visible, ultraviolet, and infrared light.</div></div></div></div>
rdfs:label	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>Optics</div></div></div></div>
owl:sameAs	<div><div><div><div></div><div><div></div><div></div></div></div><div><div>fbase:Optics</div><div>http://nl.dbpedia.org/resource/Optica</div><div>http://fr.dbpedia.org/resource/Optique</div><div>http://de.dbpedia.org/resource/Optik</div><div>http://wikidata.dbpedia.org/resource/Q14620</div><div>http://cs.dbpedia.org/resource/Optika</div><div>http://el.dbpedia.org/resource/Οπτική</div><div>http://es.dbpedia.org/resource/Optica</div><div>http://eu.dbpedia.org/resource/Optika</div><div>http://id.dbpedia.org/resource/Optika</div><div>http://it.dbpedia.org/resource/Optica</div><div>http://ja.dbpedia.org/resource/光学</div><div>http://ko.dbpedia.org/resource/광학</div><div>http://pl.dbpedia.org/resource/Optyka</div><div>http://pt.dbpedia.org/resource/Optica</div><div>http://wikidata.org/entity/Q14620</div><div>http://sw.cyc.com/concept/Mx4nDdym5wpEbGdrcN5Y29ycA</div><div>http://af.dbpedia.org/resource/Optika</div><div>http://ar.dbpedia.org/resource/بصريات</div><div>http://az.dbpedia.org/resource/Optika</div><div>http://bat-sma.dbpedia.org/resource/Oatéka</div></div></div></div>



HOME

NEWSDESK

PRESS RELEASES

PRODUCTS

BUYERS GUIDE

JOBS

EMPLOYERS

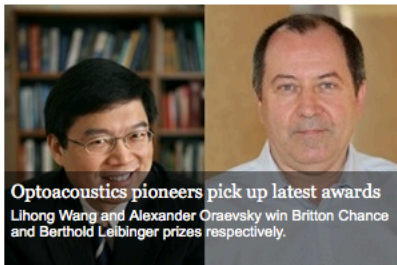
EVENTS

NEWSLETTER

ADVERTISE

**STRENGTHEN** (+2.26%) **ASTI** 1.76 (+0.57%) **AVGO** 86.25 (+4.69%) **BIOL** 2.38 (-0.42%) **BRKR** 20.73 (+0.44%) **COHR** 65.15 (+3.73%) **CREE** 31.4

## FEATURED



**Optoacoustics pioneers pick up latest awards**  
Lihong Wang and Alexander Oraevsky win Britton Chance and Berthold Leibinger prizes respectively.



## PRODUCTS



**Caspian C-39No-16: the first C-Mount lens with integrated Liquid Lens Auto Focus**  
Varioptic - a BU of Parrot SA



**Surface Enhanced Raman Spectroscopy Substrates from Ocean Optics**  
Ocean Optics



**High Performance Smart Spectrometer**  
B&W Tek Inc.



**Xenics Introduces "Serval" IP67 Ruggedized LWIR Camera for Industrial Vision**  
Xenics NV



**NEW: Lumenera's 9.1 MP Sony ICX814 Quad-Tap CCD Camera with High-Speed USB 3.0**  
Lumenera



**Sacher Lasertechnik introduces: Micro laser with external cavity**  
SACHER LASERTECHNIK GMBH

[More Products >>](#)

## MARKET NEWS

### Game-changer: the market impact of the blue LED

Nobel-winning research has created a \$17.7 billion market and 250,000 jobs, says analyst.

### IEA: how solar *could* lead electricity generation

Global photonics market valued at more than \$150bn

## APPLICATIONS

### Heliatek installs largest PV-generating façade

Dresden-based solar film developer completes installation at headquarters - to power lighting system.

### IMAX to start laser projector roll-out

### Aquitaine start-up to make fiber lasers

## PHOTONICS WORLD



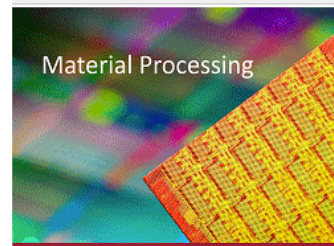
### Poisoned chalice: why Apple-GTAT went sour

Declaration to bankruptcy court by GTAT's chief operating officer shows just how one-sided the doomed sapphire supply deal was.

### Diverse investors gear up for photonics sector growth

### Proposals meeting scheduled for US photonics 'hub'

## KEY SUPPLIERS



## BUSINESS & FINANCE

### Newport lands \$26M ultrafast laser deal

Sources for surgical applications set to ship over the next two years as CEO hails 'excellent momentum'.

### IPG sees laser cutting migrate to higher powers

### Cynosure up sharply on aesthetics boom

## RESEARCH & DEVELOPMENT

### 'Record' 255Tbit/s data transmission over seven-core fiber

Eindhoven-led team develop new fiber that allows 21 times more bandwidth than is currently available.

### Israeli academic, nuclear partners to found photonics R&D center

subwavelength optical fibers diffuse light for sensing

## MOST READ

- 1 **Vuzix sees big markets for improved smart glasses**
- 2 **IMAX to start laser projector roll-out**
- 3 **Diverse investors gear up for photonics sector growth**
- 4 **Oeram develops brighter LED for car headlights**
- 5 **Philips: LEDs now account for 40% of sales**

## LATEST FROM TWITTER



**JDSU**  
@JDSU

1h

ICYMI: Our Quarterly Roundup, plus more on the company split #JDSUPerspectives [ow.ly/DEd0l](http://ow.ly/DEd0l)



**Eric Mazur**  
@eric\_mazur

2h

Affordable



No more molding  
Here's the alternative





# Automating the Linking

- ❑ Not every concept will have a match
- ❑ Or a resource page
- ❑ Semantic functionality –
  - Lots of synonyms will help
  - Proximity and other rules
- ❑ Create new resources or landing pages



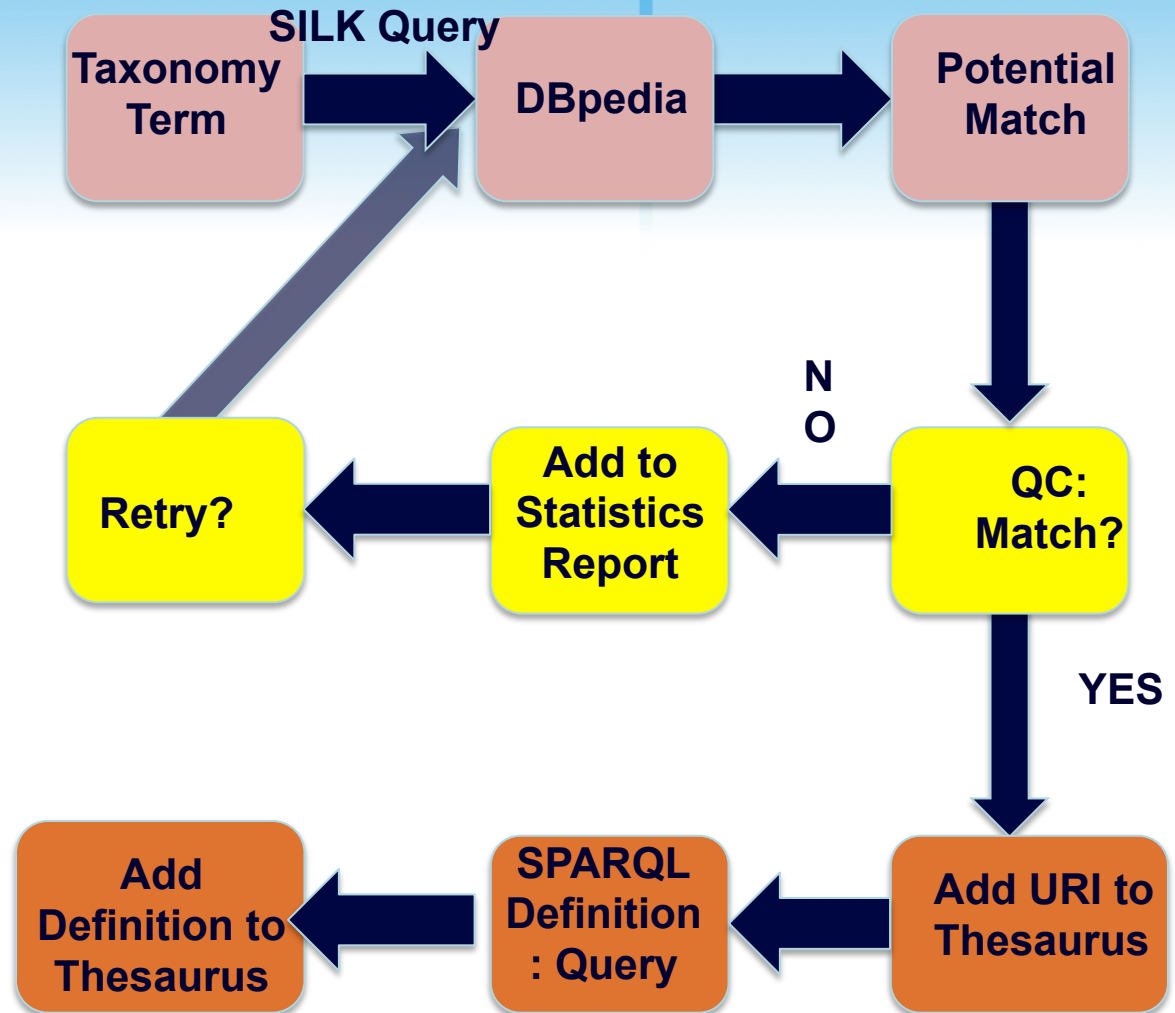


# Phrasing of Concepts will Vary

- Exact concept match
  - add the URI to a field in the thesaurus.
- Different phrasing
  - *Research funding* “Funding of science”
  - SILK  
<http://personal.sirma.bg/vladimir/misc/silk-book.pdf>
- False matches
  - *Ecosystem engineering* vs Ecosystem engineer

# Linking Workflow

- Link content to external databank
- Make Potential URI matches
- QC for the thesaurus domain
- Matched URIs enrich the content





# Linking Out to External Datasets

- ❑ Link Thesaurus Preferred Terms
  - Resource describing the thesaurus concept
  - SKOS parlance, is “the same as”
- ❑ Identify DBpedia pages for each term
- ❑ Identify other sources
- ❑ Backfill knowledge gaps
- ❑ Concept exists
  - No content pages yet available



02 November 2014



Centre for Infections/PHE/SPL

## The Ebola questions

Scientists know a lot about the virus that causes Ebola — but there are many puzzles that they have yet to solve.

### Latest news

- Fungus from Asia threatens European salamanders
- Ebola controls at US medical meeting spark protest
- Science suffers in rocket explosion

More news from Nature

## Nature journal



Contents 30 Oct 14  
Podcasts Videos

## Inside nature.com



**Publications A-Z**  
browse the nature.com publications index



**Nature.com regions**  
Asia-Pacific  
Nature India  
Nature Middle East  
see more



**naturejobs.com**  
Science jobs - free posting available now!



**Open Innovation**  
Solve innovation challenges



**Launchpad**  
Mobile  
Projects  
see more



**Multimedia**  
Nature Videos  
Nature Podcast  
More podcasts  
Webcasts



**Society partners**  
International society publishing partnerships



**Gateways and Databases**  
Protocol Exchange  
Structural Biology Knowledgebase  
see more



**Conferences**  
Nuclear Reprogramming and the Cancer Genome; Immune Homeostasis and Inflammatory Disease; Agricultural Genomics — From Variation to Crops.  
see more



**Web feeds**  
Nature  
Naturejobs: Biology  
see more



**Blogs**  
Blogs from Nature

## Latest research

- Solution-processed, high-performance light-emitting diodes based on quantum dots *Nature*
- Robust Arctic sea-ice influence on the frequent Eurasian cold winters in past decades *Nature Geoscience*
- Functional spaces in star and single-chain polymers via living radical polymerization **FREE** *Polymer Journal*

## Special Feature



### Human Genome Variation (HGV)

*Human Genome Variation (HGV)* is a new online open access journal from Nature Publishing Group and the Japan Society of Human Genetics, publishing research articles and reports about variation and variability in the human genome.

Read latest contents and publish in HGV - a quality, peer-reviewed journal, and make your paper seen.

Discover more about HGV at [www.nature.com/hgv](http://www.nature.com/hgv).

## NPG in the news

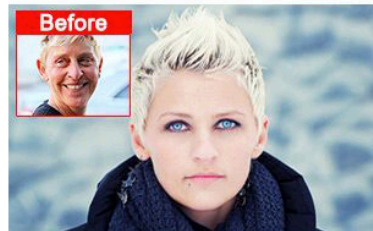
28 October 2014

Scientists under fire awarded the 2014 John Maddox Prize for Standing up for Science

NPG press room

ADVERTISEMENT

## 55 Year Old Ellen Looks 25



Dr OZ: "Better than a facelift"

## Explore nature.com



**Introducing Nature Arabic Edition**



**Nature Middle East**



### Blogs - from nature.com

- Featured blog**  
Free Association: A blog from Nature Genetics
- Featured Posts**  
Size doesn't matter - A blog post from Scientific Data  
5 women STEM ambassadors from across the world - A blog post from Nature India

## Browse subjects



**Life Sciences**  
Genetics, Neuroscience, Cancer...



**Physical Sciences**  
Physics, Materials...



**Chemistry**  
Chemistry, Biotechnology, Drug discovery...



**Clinical Practice & Research**  
Cancer, Gastroenterology & Hepatology...



**Earth & Environment**  
Earth sciences, Evolution & ecology...

## Information

- About NPG
- For Librarians
- For Authors and Referees
- For Advertisers
- Privacy Policy
- For Societies
- Subscriptions
- Reprints and Permissions
- Work at NPG
- Use of Cookies

Every  
circle a  
link to  
other  
data

...

or ads

Publications A-Z index Browse by subject

Subscribe Register Submit Manuscript My account

nature.com

Search go Advanced search

02 November 2014

**The Ebola questions**  
Scientists know a lot about the virus that causes Ebola — but there are many puzzles that they have yet to solve.

**Latest news**

- Fungus from Asia threatens European salamanders
- Ebola controls at US medical meeting spark protest
- Science suffers in rocket explosion

► More news from Nature

Centre for Infections/PHE/SPL

**Nature journal**

THE TOP 100 PAPERS

Contents 30 Oct 14  
Podcasts Videos

**Inside nature.com**

**Publications A-Z**  
► browse the nature.com publications index

**Nature.com regions**

- Asia-Pacific
- Nature India
- Nature Middle East

**naturejobs.com**  
► Science jobs - free posting available now

**Open Innovation**  
► Solve innovation challenges

**Launchpad**  
► Mobile  
► Desktop  
see more ►

**Multimedia**

- Nature Videos
- Nature Podcast
- More podcasts
- Webcasts

**Society partners**  
► International Society publishing partnerships

**Gateways and Databases**

- Protocol Exchange
- Structural Biology Knowledgebase

see more ►

**Conferences**

- Nuclear Reprogramming and the Cancer Genome; Immune Homeostasis and Inflammatory Disease; Ancient Genomics — From Variation to Crops.

see more ►

**Web feeds**

- Nature
- NatureJobs: Biology

see more ►

**Blogs**  
► Blogs from Nature Publishing Group's

**Explore nature.com**

Introducing **Nature Arabic Edition**

**Nature Middle East**

**Blogs - from nature.com**

- Featured blog  
Free Association: A blog from Nature Genetics
- Featured Posts  
Size doesn't matter - A blog post from Scientific Data
- 5 women STEM ambassadors from across the world - A blog post from Nature India

**Browse subjects**

- Life Sciences**  
Genetics, Neuroscience, Cancer...
- Physical Sciences**  
Physics, Materials...
- Chemistry**  
Chemistry, Biotechnology, Drug discovery...
- Clinical Practice & Research**  
Cancer, Gastroenterology & Hepatology...
- Earth & Environment**  
Earth sciences, Evolution & ecology...

**Information**

- About NPG
- For Librarians
- For Authors and Referees
- For Advertisers
- Privacy Policy
- For Societies
- Subscriptions
- Reprints and Permissions
- Work at NPG
- Use of Cookies

**Latest research**

- Solution-processed, high-performance light-emitting diodes based on quantum dots *Nature*
- Robust Arctic sea-ice influence on the frequent Eurasian cold winters in past decades *Nature Geoscience*
- Functional spaces in star and single-chain polymers via *Nature*

**Special Feature**

**Human Genome Variation (HGV)**

Human Genome Variation (HGV) is a new online open access journal from Nature Publishing Group and the Japan Society of Human Genetics, publishing research articles and reports about variation and variability in the human genome.

Read latest contents and publish in HGV - a quality, peer-reviewed journal, and make your paper seen.

Discover more about HGV at [www.nature.com/hgv](http://www.nature.com/hgv).

**NPG in the news**

**28 October 2014**  
Scientists under fire awarded the 2014 John Maddox Prize for Standing up for Science


NPG press room ►

ADVERTISEMENT

**55 Year Old Ellen Looks 25**

Before

Dr OZ: "Better than a facelift" ►



# Metrics – Measuring Accuracy

- The level of accuracy with which we matched concepts;
  - How many match correctly?
  - How many match incorrectly?
- The number of concepts with no match
- Number of autolink populated pages





# But What about Triples?

- SKOS

- Simple Knowledge Organization System

- Triples

- RDF Statements
- Resource Description Format
- Subject Object Predicate

- OWL

- Web Ontology Language

- Formats



# It's What We Do With the Data

- ❑ The formats will continue to vary
- ❑ Words will continue to be a challenge
- ❑ It's what we do with the data that is important.
- ❑ The delivery
- ❑ The concepts
- ❑ Allowing the user to find the thread and follow it instead of giving them yet another resource to go to.



In *Macbeth* (V. iii. 11)<sup>1</sup> a word is used that is of unusual interest, not only as giving point to a passage of Shakespearean subtlety and some insight into Shakespeare's mental processes, but as being probably the earliest printed record of the word in the sense in which it is used. The word of this philological interest is *loon*.

When a servant brings to Macbeth news of the approach of the English force under Malcolm, Macbeth flares out at him as follows:

The devil damn thee black, thou cream-fac'd loon!  
Where got'st thou that goose look?  
Serv. There is ten thousand—  
Mach. Geese, villain?  
Serv. Soldiers, sir.  
Mach. Go prick thy face, and over-red thy fear,  
Thou lily-liver'd boy. What soldiers, patch?  
Death of thy soul! those linen cheeks of thine  
Are counsellors to fear. What soldiers, whey-face?  
Serv. The English force, so please you.  
Mach. Take thy face hence.

Always, so far as I have been able to discover, the word *loon* is glossed as meaning "worthless fellow"—or some other paraphrase of the definition in the N.E.D. The word did, of course, bear that meaning when Shakespeare wrote: he used it elsewhere, *Othello* II.iii.95 and *Pericles* IV.vi.19. But in each of those passages the word is spelled "lowne"; in *Macbeth* it is spelled "loone."

What makes *loone* interesting is its association with "goose look" and the reinforcing "geese." Must we not suspect that here is an equivocal use of the name of the aquatic bird of the grebe family known as "loon"? If this meaning of the word was in Shakespeare's mind as well as the other meaning, it gives an added vividness to the picture of the increasing pallor of the frightened servant by suggesting the contrast between the clean whiteness of a loon's breast and the grayer white of a goose. And in addition it is an earlier use of the word than that recorded by the N.E.D.

Under the entry "Loon"<sup>2</sup> the N.E.D. has the definitions and the quotations that follow:

- A name for certain aquatic birds.  
1. Any bird of the genus *Colymbus*, esp. the Great Northern Diver (*C. glacialis*), remarkable for its loud cry.  
1634 W. Wood *New Eng. Prosp.* (1865) 34 The Loone is an ill-shap'd thing like a Cormorant.

<sup>1</sup> The lineation is that of the one-volume *Student's Cambridge Edition* edited by W. A. Neilson.

Death of thy soul! those linen cheeks of thine  
Are counsellors to fear. What soldiers, whey-face?  
Serv. The English force, so please you.

With **JPASS**, you're  
always at the library.

Gain personal access to the JSTOR archive.

Save 10% on the  
JPASS Annual Plan

> GET STARTED



JPASS

## RIGHTS AND PERMISSIONS

[More Rights Options](#)

[JSTOR Terms And Conditions](#)



JPASS





# It Just Takes a Little Imagination

## Thank you

Marjorie M.K. Hlava, President  
Access Innovations  
505-998-0800  
[mhlava@accessinn.com](mailto:mhlava@accessinn.com)



# About Access Innovations

Access Innovations are experts in content creation, enrichment, and conversion services. We provide services to semantically enrich and tag raw text into highly structured data. We deliver clean, well-formed, metadata-enriched content so our clients can reuse, repurpose, store, and find their knowledge assets. We go beyond the standards to build taxonomies and other data control structures as a solid foundation for your information. Our services and software allow organizations to use and present their information to both internal and external constituents by leveraging search, presentation, and e-commerce. We change *search to found!*

## *Quick Facts*

- Founded in 1978
- Headquartered in Albuquerque, NM
- Privately held
- Delivered more than 2000 engagements