OxPoints and data.ox.ac.uk Linked open data, and how it could work to your advantage

Slides at:

http://is.gd/dnV43h

Oxford University Computing Services www.oucs.ox.ac.uk Alexander Dutton InfoDev, OUCS

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What is OxPoints?

- A database of locations and units
 - Divisions, departments and colleges
 - Libraries and sublocations
 - Sites, buildings and rooms
 - Relationships (occupation, org structure)
 - Images, logos and Twitter account names
- Open
- Machine-readable in various formats



OxPoints coverage

- All colleges, PPHs and departments
- Most University-owned or -occupied buildings (including locations)
- All libraries and sublocations

 Still need to integrate new ILS data
- Locations of all college and PPH lodges
- Some rooms (meeting and teaching)
 More coming, including college rooms



Types of OxPoints data

- Names (inc. preferred, alternate and hidden)
- Locations (latitude and longitude)
- Addresses and telephone numbers
- URLs (homepage, IT support, WebLearn)
- Identifiers (OUCS, Estates, OLIS, OSM, Finance)
- Descriptions



Getting the data

- Path-based query syntax
- Available as JSON, JSONP, RDF/XML, KML
- Documentation at http://www.oucs.ox.ac.uk/oxpoints/
- Examples:
 - o <u>http://oxpoints.oucs.ox.ac.uk/type/College.kml</u>
 - o <u>http://oxpoints.oucs.ox.ac.uk/oucs:manstud.json</u>
 - o <u>http://oxpoints.oucs.ox.ac.uk/occupies/obn:381.xml</u>
 - o <u>http://oxpoints.oucs.ox.ac.uk/isPartOf/0000000.n3</u>



RSL (building)

-<rdf:RDF>

- -<oxp:Building rdf:about="http://oxpoints.oucs.ox.ac.uk/id/23233644">
 - <foaf:depiction rdf:resource="http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644-radcliffe-science-libra
 </foaf:depiction rdf:resource="http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644-radcliffe-science-libra
 </foaf:depiction rdf:resource="http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644-radcliffe-science-libra
 </p>

-<vCard:adr>

-<vCard:Address>

<vCard:postal-code rdf:datatype="http://www.w3.org/2001/XMLSchema#string">OX1 3QP</vCard:post <vCard:locality rdf:datatype="http://www.w3.org/2001/XMLSchema#string">OXford</vCard:locality> <vCard:street-address rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Parks Road</vCard: <vCard:street-address rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Parks Road</vCard: <vCard:street-address rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Parks Road</vCard:locality></vCard:street-address rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Parks Road</vCard:street-address rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Parks Road</vCard:street-address rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Parks Road</vCard:street-address rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Parks Road</vCard:street-address rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Parks Road</vCard</vCard

</vCard:Address>

</vCard:adr>

```
<dct:isPartOf rdf:resource="http://oxpoints.oucs.ox.ac.uk/id/59030245"/>
```

<dc:title rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Radcliffe Science Library</dc:title>
<skos:prefLabel rdf:datatype="http://www.w3.org/2001/XMLSchema#string">Radcliffe Science Library</ska
<foaf:depiction rdf:resource="http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644-radcliffe-science-libra
<oxp:hasOSMIdentifier rdf:datatype="http://www.w3.org/2001/XMLSchema#string">way/31268991</oxp:l
<geo:long rdf:datatype="http://www.w3.org/2001/XMLSchema#string">2001/XMLSchema#string">way/31268991</oxp:l
<geo:long rdf:datatype="http://www.w3.org/2001/XMLSchema#string">225</oxp:hasOSMIdentifier rdf:datatype="http://www.w3.org/2001/XMLSchema#string">225</oxp:hasOSMIdentifier rdf:datatype="http://www.w3.org/2001/XMLSchema#string">225</oxp:hasOSMIdentifier rdf:datatype="http://www.w3.org/2001/XMLSchema#string">225</oxp:hasOSMIdentifier rdf:datatype="http://www.w3.org/2001/XMLSchema#string">225</oxp:hasOSMIdentifier rdf:datatype="http://www.w3.org/2001/XMLSchema#string">225</oxp:hasOSMIdentifier rdf:datatype="http://www.w3.org/2001/XMLSchema#string">225</oxp:hasOSMIdentifier rdf:datatype="http://www.w3.org/2001/XMLSchema#float">225</oxp:hasOBNCode></oxp:hasOBNCode</oxp:hasOBNCode</oxp:hasOBNCode</oxp:hasOBNCode></oxp:hasOBNCode></oxp:hasOBNCode="http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644-radcliffe-science-libra</oxp:Building></oxp:Building></oxp:Building></oxp:Building></oxposed

</rdf:RDF>



Radcliffe Science Library 🗢

Estates identifier	225		
oxp:hasOSMIdentifier	way/31268991		
<u>Title</u>	Radcliffe Science Library		
Is Part Of	University Science Area		
<u>Spatial Coverage</u>	POLYGON((-1.256271 51.7580983, -1.2560753 51.7577743, -1.2553588 51.7579402, -1.2554612 51.7581098, -1.2556018 51.7580772, -1.2555533 51.7579969, -1.2559532 51.7579044, -1.256095 51.758139, -1.256271 51.7580983))		
<u>type</u>	building		
<u>sameAs</u>	http://linkedgeodata.org/triplify/way/31268991#id		
latitude	51.758114		
longitude	-1.256305		
preferred label	Radcliffe Science Library		
address	Parks Road Oxford OX1 3QP		
<u>depiction</u>	http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644- radcliffe-science-library/radcliffesciencelibray- bicycleracks.jpg http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644- radcliffe-science-library/radcliffesciencelibrary.jpg http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644- radcliffe-science-library/radcliffesciencelibray-entrance.jpg http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644- radcliffe-science-library/radcliffesciencelibray.jpg http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644- radcliffe-science-library/radcliffesciencelibray.jpg http://oxpoints.oucs.ox.ac.uk/images/buildings/23233644- radcliffe-science-library/radcliffesciencelibray.jpg		



Oxford University Computing Services

www.oucs.ox.ac.uk

Why use it?

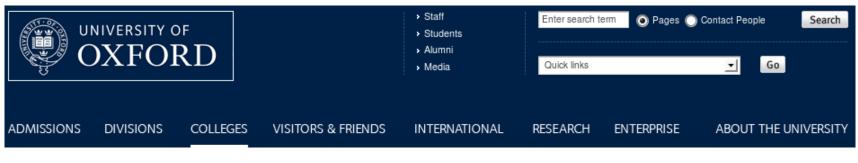
- Centrally managed and maintained
- Links identifiers
- Lots of metadata
- Public domain (CC0; no attribution required)
- Extensible; if you need something else, ask us!
- Easy to integrate into existing systems
- Interoperate with other users of OxPoints



Who uses OxPoints?

- Public Affairs
- Mobile Oxford
- And possibly soon...
 Time-tabling project
 Nexus resource integration





Home > Colleges > Map of the Colleges and Halls >

Colleges

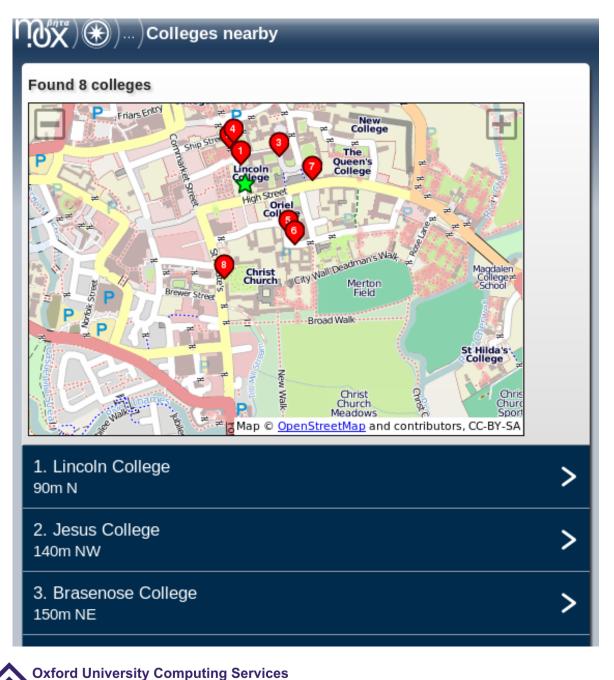
Map of the Colleges and Halls

- Colleges and Halls A-Z
- The collegiate system
- Choosing a college
- Student comments
- Map of the Colleges and Halls

Key College Permanent Private Hall Please use the list below the map to find the location of a College or Hall at Oxford University. Alternatively, click on a blue shield to identify a particular college or a red shield for a PPH.





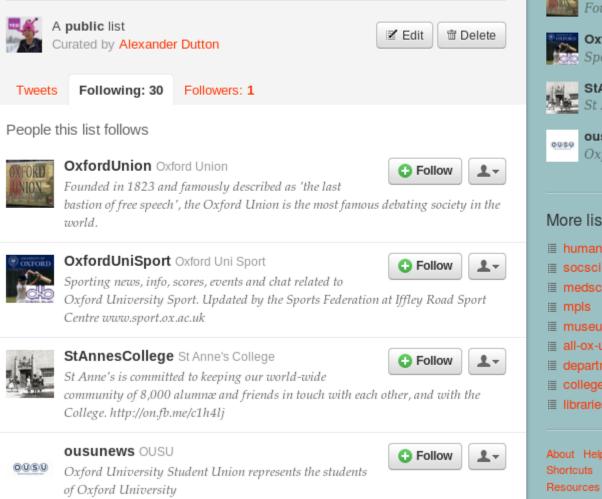


Mobile Oxford

www.oucs.ox.ac.uk

all-ox-uni

All accounts held by University entities



Recently Following

This list's most recently followed accounts · view all



OxfordUnion Oxford Union · Follow Founded in 1823 and famously described as 'th...

OxfordUniSport Oxford Uni Sport · Follow Sporting news, info, scores, events and chat re...

StAnnesCollege St Anne's College · Follow St Anne's is committed to keeping our world-w...

ousunews OUSU · Follow Oxford University Student Union represents th ...

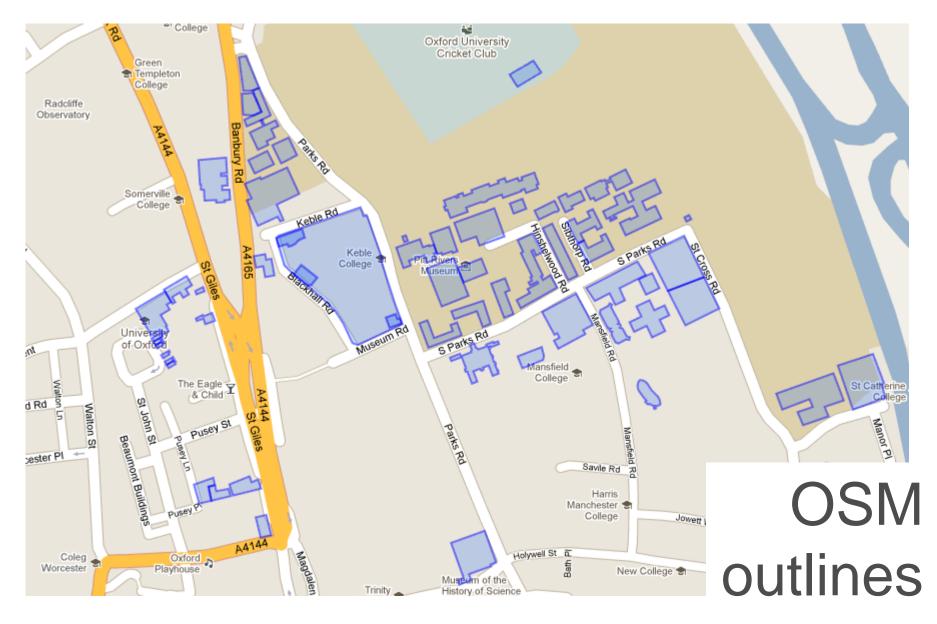
More lists by @alexsdutton · view all

- humanities
- medsci
- museums
- all-ox-uni
- departments
- colleges-pphs
- Iibraries

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Twitter lists







Next steps

- Lots more room data (courtesy of Earth Sciences)
- Nexus resource addresses
- Library codes and sublocations
- Releasing the editor
- More modelling:
 - Room layouts and capacities
 - 'Affiliatory' relationships (societies, colleges)



More information

- Join the mailling list:
 - o oxpoints-users-subscribe@maillist.ox.ac.uk
- Read the documentation
 - o http://www.oucs.ox.ac.uk/oxpoints/
- E-mail us:
 - o oxpoints@oucs.ox.ac.uk



Linked data



Linked data

"In computing, linked data describes a method of publishing structured data so that it can be interlinked and become more useful. It builds upon standard Web technologies such as HTTP and URIs, but rather than using them to serve web pages for human readers, it extends them to share information in a way that can be read automatically by computers. This enables data from different sources to be connected and queried."

"Linked Data", Wikipedia, CC-BY-SA



data.ox.ac.uk

- A platform for linked data about the collegiate University
- Data available for re-use and integration
- Huge potential benefit for users within the institution



Potential benefits

- Display vacancies through Mobile Oxford
- Energy usage widgets on departments' and colleges' homepages
- Hook up to Exchange Web Services to show room booking availability for all rooms in a building along with capacities and images
- Undergraduate prospectus with admissions and graduate destination Oxford University Computing Services

Progress

- Still under heavy development
- Four datasets at the moment
 OxPoints
 OSM geometries for OxPoints
 - OSM geometries for OxPoints
 - Electricity meter data
 - Norrington Table
- More datasets being sought and developed



Data ingest

- Formats:
 - Manually curated files
 Spreadsheets / CSV
 HTML
 RDF
- Sources:
 - The web
 - E-mail

Other APIs Oxford University Computing Services Upging Bervices Other APIs



Open Data about the University of Oxford

data.ox.ac.uk

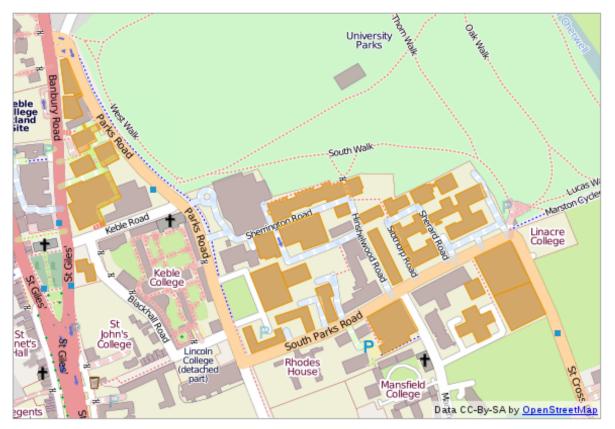
Datasets

Name	Publisher	License	Description	
<u>Norrington Table</u>	<u>Computing</u> <u>Services</u>	<u>CC0 1.0 Universal</u>	Summary Final Honour School results and Norrington rankings for constituent colleges, societies and halls of the University of Oxford.	
<u>OpenMeters</u>	<u>University Estates</u> <u>Directorate</u>	CC0 1.0 Universal	Cumulative energy consumption for meters at the University of Oxford, modelled using the DataCube vocabulary.	
<u>OpenStreetMap</u> geometries for OxPoints	<u>Computing</u> <u>Services</u>	<u>Attribution-</u> <u>ShareAlike 2.0</u> <u>Generic</u>	Contains WKT literals taken from OpenStreetMap for places in OxPoints.	
<u>OxPoints</u>	<u>Computing</u> <u>Services</u>	<u>CC0 1.0 Universal</u>	OxPoints is the University's geospatial, temporal and organisational RDF store. OxPoints aims to contain information about most political and built entities within the University, including college, department, building and rooms.	



University Science Area Map

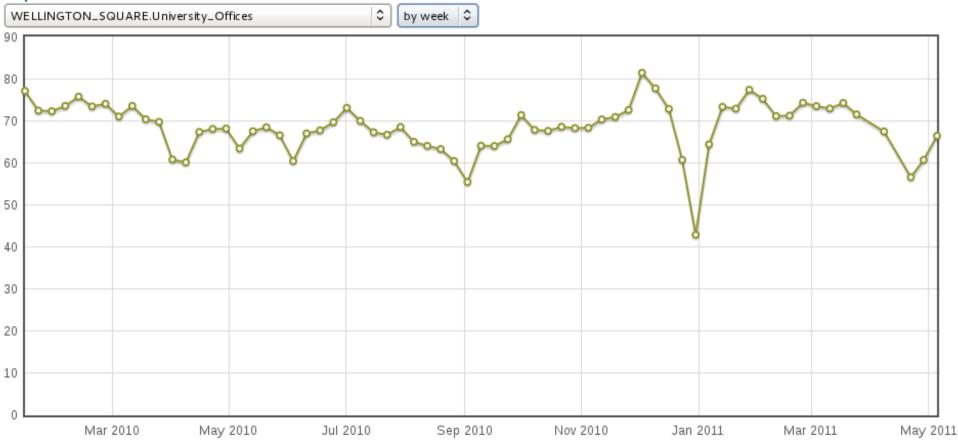
A re-imagining of the official science area map using OpenStreetMap and OxPoints data.



Department of Biochemistry Rodney Porter Building New Biochemistry Building Rex Richards Building Donald Woods Building Department of Chemistry Laboratory Chemical Biology Organic Chemistry Department of Engineering Science Thom Building Holder Building Jenkin Building Information Engineering Inorganic Chemistry Laboratory Department of Materials Mathematical Institute The Peter Medawar Building for Pathogen Research Oxford University Bioinformatics Centre Pathology Rex Richards Building Sir William Dunn School of Pathology Department of Pharmacology Department of Plant Sciences Plant Sciences South Plant Sciences North Plant Sciences Library Physical and Theoretical Chemistry Laboratory Department of Earth Sciences Pitt Rivers Museum University Museum of Natural History Medical Sciences Division Astrophysics Department of Physics Particle Physics Radcliffe Science Library Centre for Cognitive Neuroscience



OpenMeters





Keble College 🗢

http://www.keble.ox.ac.uk/

<u>finance code</u>	RJ
<u>IT homepage</u>	http://www.keble.ox.ac.uk/students/student-support/study-skills- and-assistance/it/
OUCS code	kebi
WebLearn site	http://weblearn.ox.ac.uk/site/colleges/keble/
<u>occupies</u>	<u>Acland Site</u> <u>Keble College</u> <u>Keble College Sports Ground</u> <u>Felstead House</u>
<u>has primary</u> <u>place</u>	Lodge
<u>Title</u>	Keble College
<u>type</u>	Oxford college
<u>sameAs</u>	http://dbpedia.org/resource/Keble_College,_Oxford
preferred label	Keble College
<u>address</u>	Parks Road Oxford OX1 3PG
depiction	http://oxpoints.oucs.ox.ac.uk/images/colleges/small/kebl.jpg
<u>homepage</u>	http://www.keble.ox.ac.uk/



Norrington Table Results

Yr	1^{st}	2:1	2:2	3 rd	о.	Tot	Score
'06						128	65.2%
'07						130	66.9%
'08	26	68	7	0	0	101	68.9%
'09	37	78	3	2	1	121	70.6%
'10	29	78	11	6	0	124	65.6%



Toolbox

<u>What links here</u> Other things of type: <u>Oxford</u> <u>college</u> <u>View at sig.ma</u>

Page metadata Applicable licenses

Portions of data on this page are made available under the following licenses:

CC0 1.0 Universal

Datasets

Data for this page was drawn from the following datasets:

OxPoints Norrington Table

Other formats <u>HTML</u>

N-Triples Notation3 RDF/XML

Turtle



Potential datasets

- Course advertisements
 - Undergraduate
 - Postgraduate
 - Oxford Learning Institute
 - Language Centre
- Job vacancies
- Statistics

Personnel, including diversity monitoring

• Student admissions and outcomes Oxford University Computing Services 26

metadata

Elsewhere...



University opens up its data to the 'app generation' of students

Ref: 11/21 07 March 2011

The University of Southampton is pioneering an open data revolution by publishing its non-personal data online to provide potential students with information that will help them make a choice about what and where to study.

data.southampton.ac.uk

(<u>http://data.southampton.ac.uk/</u>), which launches today (7 March), builds on the University's commitment to access by opening up a wide range of data for students to create the information they seek in the way that they want it, such as by developing iPhone apps.

There will be over 20 datasets available on

data.southampton.ac.uk with information about University buildings, National Student Survey statistics, research outputs and financial statements. Over the coming year, the University will progressively increase the bank of data available.





data.southampton.ac.uk

- Buildings and Places
- Catering
- Common Learning Spaces Extra Information
- EPrints Repository
- EdShare



- Photographs of University of Southampton Things
- Press Contacts
 Information
- Programmes (2010-2011 session)
- Public Phonebook

Southampton

Home

Retail Outlets

Halls Catering

Catering

Brands on Campus

Graduation

Open Days

News Page

Maps, Location and Search

Cashless & Shop

Special Offers

Contact Us

Welcome to the University of Southampton Catering Services website. We pride ourselves on putting our customers first.

Within **Catering Services**, meal planning is a top priority and our first class chef's have selected a varied menu, including healthier options, fast food and international trends, to hopefully, suit every taste bud.

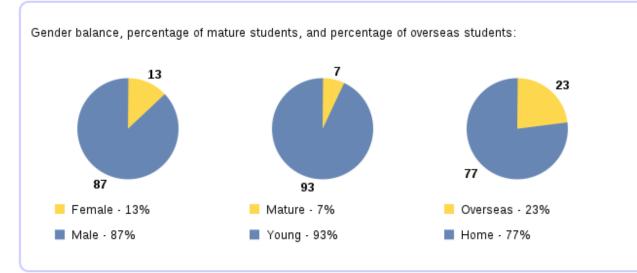
We cater for staff. students and visitors to the University and provide venues that appeal to everyone. From the Student based Piazza together with fine dining in the Blue Room, we really do have something for everyone.

Halls of residence have great restaurants providing the very best in catering. Gina and her team are on hand to help with your dietary needs and can advise you on using your 'Catered Student' cards.

Product Search	Southampto
 Type a produc	tname
This tool searches the I university. It is a new and provided using the Univer Open Data S	l experiental service sity of Southampton
Try searching for "Co	offee" or "Cake"!



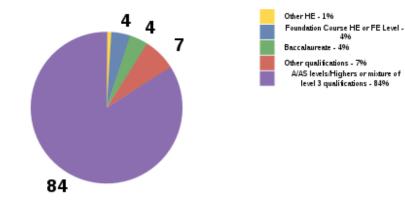
www.oucs.ox.ac.uk



496

Qualifications on Entry (students under 21)

Qualifications students in this category already had when they entered the degree.



Course statistics from UniStats



Summary



Summary

- Use OxPoints for your building and unit data. Feed back corrections.
- Linked data is still getting going. Let's show what can be done with it.
- If you have an idea for a dataset, visualization or consumer, please tell us!



Contact

OxPoints

Web: <u>http://www.oucs.ox.ac.uk/oxpoints/</u> Team: <u>oxpoints@oucs.ox.ac.uk</u> Mailling list: <u>oxpoints-users@maillist.ox.ac.uk</u>

Linked data

Web: <u>http://data.ox.ac.uk/</u> Team: <u>opendata@oucs.ox.ac.uk</u> Mailing list: <u>opendata@maillist.ox.ac.uk</u>

