An Ecology of Technology Enhanced Education: Journeys between Informal and Formal Learning

19 April 2016

Professor Sir Timothy O'Shea
Principal & Vice-Chancellor
University of Edinburgh

Professor Eileen Scanlon
Regius Professor of Open Education
The Open University

Talk structure

- Online Learning at Edinburgh
- Distance Education at the OU
- From informal to formal learning
- Citizen Science
- eLearning Ecology
- Data Science
- Learning Analytics
- Optimistic Conclusion

Online education @ Edinburgh

- Online & on-campus = ‘e-learning’
- Online & matriculated & distance learning = ‘ODL’
- Online & free access = MOOCs, OER, informal learning

Progress from informal to formal learning

Sit Less, Get Active

The University of Edinburgh

THE UNIVERSITY of EDINBURGH

Understanding the UK's 2015 General Election

Learn about the UK's 2015 general election: how does the system work, what is at stake, and how will it affect you? Whether or not you have a vote, if you want to gain a better understanding of UK polls and political issues, join us for discussion and up-to-date insight before and after polling day.

FREE ONLINE COURSE

Towards Scottish Independence? Understanding the Referendum

Understand the Scottish independence poll, and the pros and cons of a 'Yes' or 'No' vote, with The University of Edinburgh.

Go to course – started 25 Aug

coursera

Catalog | Search catalog

Institutions | Log In | Sign Up

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Nudge-it: Understanding obesity

Nudge-it is an multi-disciplinary European research project studying new ways of establishing and reinforcing healthy eating habits. Join us to learn about eating, appetite and obesity.

Nudge-it.

Member Login

Search

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"Nudging" the consumer toward healthier choices

How can we guide better decision-making in the face of our "irrational" behaviour.

Read more

THE UNIVERSITY of EDINBURGH

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 607310.

ESSQ attracts trainee surgeons from over 40 countries…

ESSQ edinburgh surgical sciences qualification

Online Distance Learning

MSc in Surgical Sciences

ESSQ

A flexible part-time online Masters course designed to meet the needs of the modern surgeon in training

Edinburgh Surgical Sciences Qualification (ESSQ) students perform significantly better in the MRCS examination than other candidates

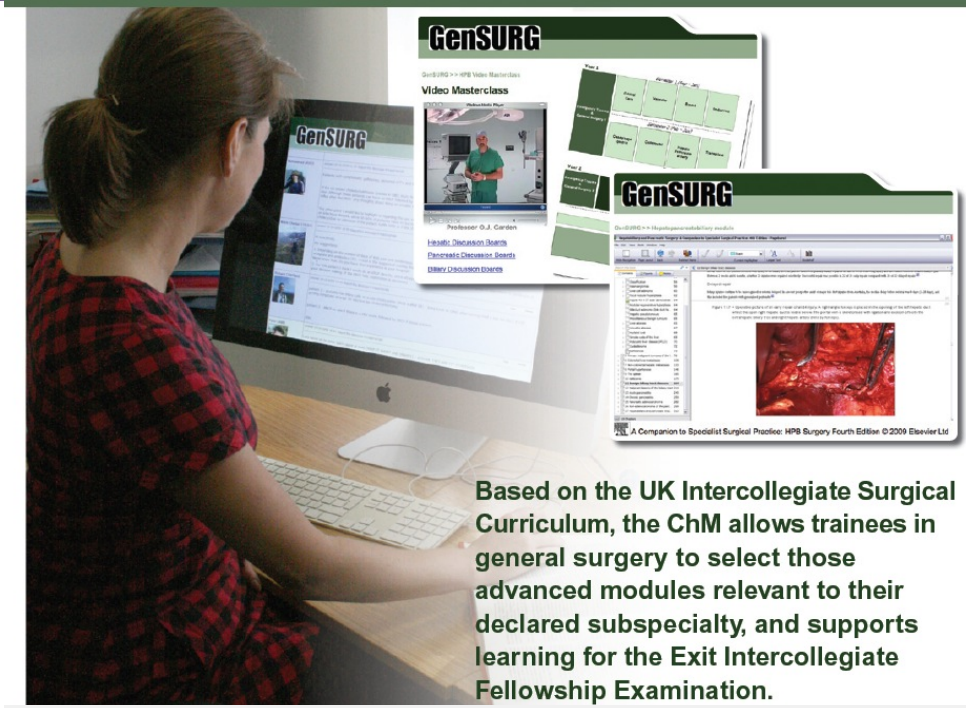
Source: Intercollegiate MRCS pass rates Jan 2008 – present

Online Distance Learning

ChM in General Surgery

GenSURG

A two year part-time online Masters course providing advanced training for surgeons



Based on the UK Intercollegiate Surgical Curriculum, the ChM allows trainees in general surgery to select those advanced modules relevant to their declared subspecialty, and supports learning for the Exit Intercollegiate Fellowship Examination.

THE UNIVERSITY of EDINBURGH

The Royal College of Surgeons of Edinburgh

e-learning 2010 awards

Winner - Education

eAssessment Scotland 2010 Marking the Decade

Highly Commended

Royal Australasian College of Surgeons

Association of Surgeons of Great Britain and Ireland ACADEMIC PARTNER

Course Accreditation

eeSURG: a fit-for-purpose VLE

- Complements traditional acquisition of clinical knowledge by trainee surgeons
- Aligned with the components of the MRCS professional surgical exam
- MCQs similar to MRCS exam format
- Labyrinth case-scenarios simulate real-life decision-making in a wide range of surgical specialties

Appropriate use of multimedia to deliver interactive content

eeSURG edinburgh surgical sciences qualification

eeSURG >> Cardiovascular and Respiratory >> 3. Abdominal Pain and Collapse ***

3. Abdominal Pain and Collapse ***

Complete Case 3 and participate on the Discussion Boards.

Case 3: Adominal Pain and Collapse

Case 3: Discussion Boards

There are

Clinical Cases

Anatomy

Abdominal Pain and Collapse Anatomy

Pathology

Abdominal Pain and Collapse Pathology

Physiology

Abdominal Pain and Collapse Physiology

DDX LO B KB

The Edinburgh Surgical Sciences Qualification

Certificate, Diploma and MSc in Surgical Sciences

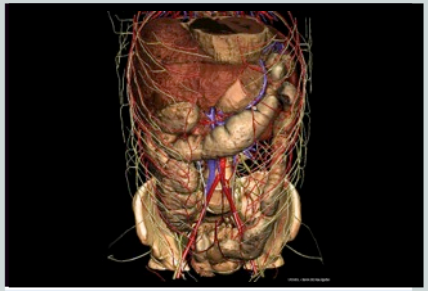
Programme Handbook 2011-2012

The Royal College of Surgeons of Edinburgh

Listen to the Podcasts

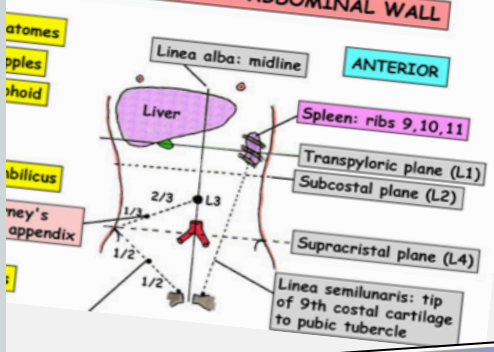
Acland's Video Atlas of Human Anatomy

6.2.1 Introduction to section 6.2



Instant Anatomy

SURFACE ANATOMY OF ABDOMINAL WALL



eeSURG edinburgh surgical sciences qualification

CVS_AAA_physiology_shock

Score so far: 2 out of 2, 100%

Following the rapid loss of 1.5 litres of blood which one of the following statements is true

- there is increased impulse activity in the carotid sinus nerves.
- there will be an immediate reduction in haematocrit.
- arterial blood pressure will be approximately 100-80/60.
- angiotensin II causes the release of aldosterone from the zona fasciculata of the adrena
- sympathetic stimulation causes strong contraction of the afferent arterioles of the juxta

out of 2

orrect. The correct answer is that in conditions of circulatory shock sympathetic activity wil
nus response to distension, not collapse. The haemocrit will reduce over a period of time d
hile it might be true arterial blood pressure w
epresent most of their circulatory volume.

Other Resources

- Change my eeSurg password
- Programme Handbook
- Course Reading List
- External Resources
- PathCAL
- Acland's Anatomy
- Instant Anatomy
- STUDENT CONSULT
- MyEd

Live Webinar
Adobe Connect Meeting Room

ESSQ edinburgh surgical sciences qualification

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Learner collaboration is encouraged and facilitated

Assessed Discussion Boards and Helpdesks
Personal Profile Pages

James EDWARDS

posted 10-11-2009 15:24 Report this Message if inappropriate

I agree with the general consensus regarding this patient's management, and that CT (especially given this acute presentation) is the most appropriate next investigation.

Regarding tumour markers: when is the most appropriate time to request these tests? Most texts I have read say that they are best used in monitoring after treatment. In a case such as this (where we strongly suspect cancer) should we be fishing for answers by requesting tumour markers or is there a formal role for them? Anyone with any thoughts?

Information giving - There are ways of avoiding questions that we don't want to answer or that we think would best be discussed at another time. For instance, the explanation/discussion about small bowel obstruction is relatively benign (pardon the pun!). We can give plenty of information (If requested) on that, especially as it is the acute presentation and we know what we are going to do. Questions regarding the underlying cause (cancer) can be defused somewhat by stating that you will be doing some investigations to identify the cause later on, but then returning the conversation to the present by saying what you are going to do now to relieve

Deborah SANDHU

posted 09-11-2009 22:22

I agree with Karen's

do a PV as gynae ma

constipation? PV ble

From what's been de

because she doesn't

doctors. I would first

explain the 'I have fo

information I would

Robert SMITH

posted 09-11-2009 22:10

I think something els

probably means that

We have a diagnosis

You would be worrie

I think a CT would he

would explain the dia

this and we would re

Just something extra

needs transfusion du

David SAMURA

posted 08-11-2009 16:49 Report this Message if inappropriate

A quick point about the staging systems before i read up on chemotherapy. They are also useful for

communication between centers in audit and research. Results and treatments can be compared be

units across the world and classification systems permit "standardisation" of disease.

Stephen Boyce

posted 05-11-2009 23:03 Report this Message if inappropriate

Excellent Ruth, you certainly got the main points, pre op radiotherapy can reduce rates of local recu

and may improve survival.

Sexual dysfunction is also an im

OK, so you advise your patient o

operative radiotherapy, then an

The patient does very well unde

demonstrates a T3N1 tumour. H

benefit from adjuvant chemothe

What are the potential benefits

commonest side effects?

Ruth CHAO

posted 05-11-2009 20:50

T3N1 - tumour invades subsero

criteria this is IIIb is 3 or less n

Radiation therapy in rectal canc

through its effects on local and r

Preoperative radiotherapy comb

Journal of Medicine (2001) 345

recurrence was reduced from 8.2

allowing low anterior resection r

planned).

Disadvantages: Proctitis with di

urethra may be affected. Perianal skin may become red, dry, and tender. patients are usually fatigue

Dysmotility may occur, even leading to pseudoobstruction and this may persist after treatment cea

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Masters Project Helpdesk

Reply to this topic

Select to see only messages made by: select...

We would encourage students to bring new material to the discussion boards. F

plagiarism is a serious offence. For more information on avoiding plagiarism ple

Author	Topic: Masters Project Helpdesk
Steve Wigmore	posted 03-09-2010 16:11
	This helpdesk is open to all Year 3 student process. You might also post any tips and
	These discussions are not assessed; this is
	You are able to start new discussion threa
	We will be checking in regularly to answer

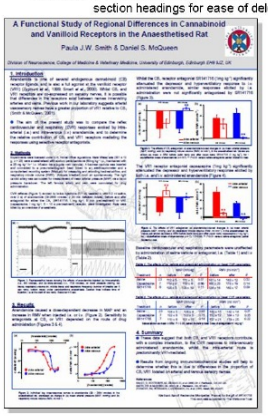
Paula SMITH

posted 17-02-2012 11:42 Report this Message if inappropriate Edit Delete

Hi Chee Ching - if you save your ePoster as a PDF to upload you can insert multiple pages, thus creating a 2-page PDF document. This "insert pages" option may only be allowed if using Adobe Acrobat (which I use) rather than Adobe Reader? If you find this, then you can always create a 2-page Powerpoint file (poster on page 1 and references section on page 2) and save it as a PDF... should create 2 page document.

I don't want to complicate this for anyone! If you include a **table** of your methods and/or results, citing each paper included in your meta-analysis or systematic review (**first author** and **year of publication** only), this will provide sufficient information to allow readers to search for the original paper if desired. Two-three key references cited in the introduction *can be* listed at the end - see my examples below:

Examples of conference posters. Note: both are split into two columns, with clearly defined section headings for ease of delegates' reading and comprehension.



CHEE CHING CHAN

posted 17-02-2012 10:30 Report this Message if inappropriate

Thank you Paula.

If I choose to use the second option, do I need to upload th

I am only allowed to upload a single file on submission.

Paula SMITH

posted 17-02-2012 09:52 Report this Message if inappropriate Edit Delete

Paula Smith's Profile

About Me:

Role:
Academic Facilitator for ESSQ

Headline:
My role is to facilitate successful online learn
supportive, and contextual. As Surgical Trainee
strengthen your knowledge base and confidenc

An online course is quite different from tradition
opportunities for students. Many online learners
they can access the learning materials at a tim

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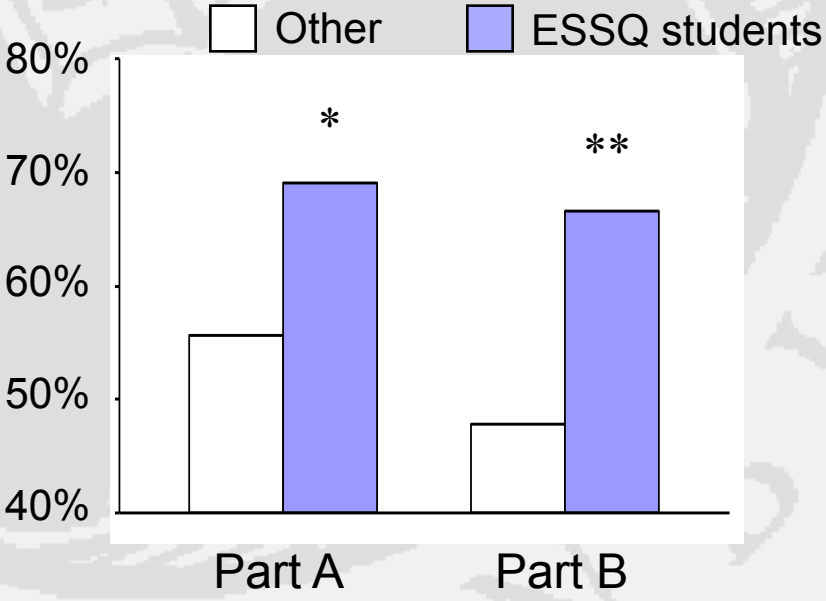
ESSQ students perform significantly better in the Membership of Royal College of Surgeons (MRCS) examination

MRCS Exam pass-rates (2008-2011)



British Journal of Surgery

eAssessment Scotland 2010 Marking the Decade

Global Health Academy

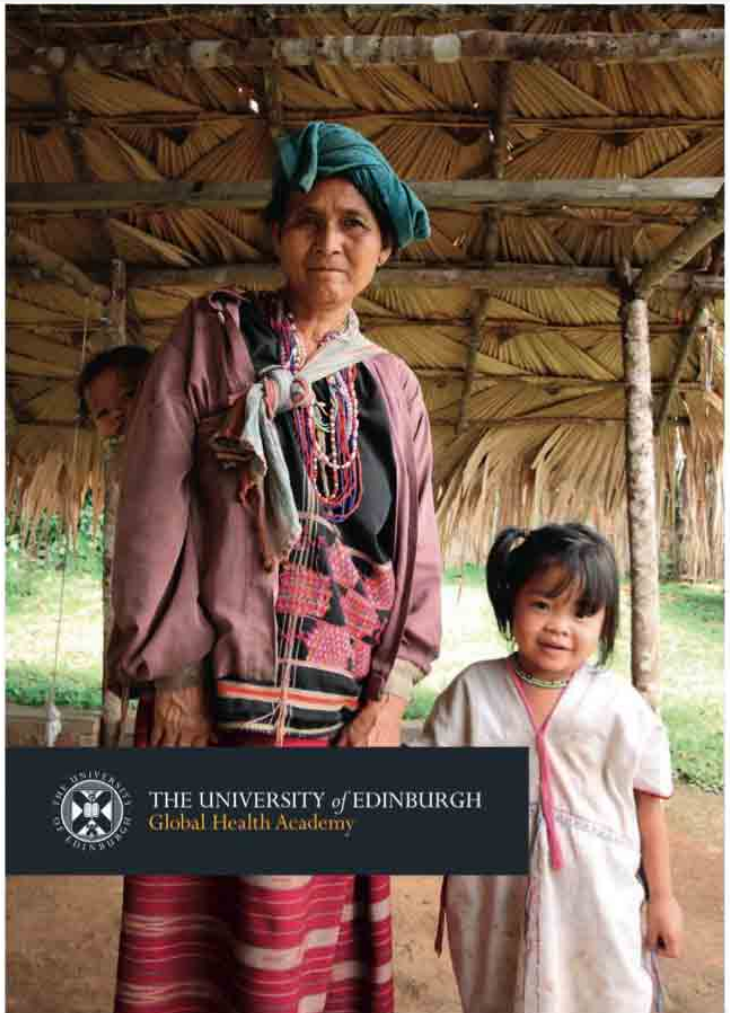
World leading interdisciplinary postgraduate degrees to help combat global challenges

Predominantly online distance learning

Optimised for ‘narrow-band’ delivery to reach developing nation participants

Enables participants from developing nations to simultaneously:

- Gain skills needed to make an impact on development in their country
- Maintain career and personal commitments - particularly crucial for women and rural participants.



An educational portfolio with technology: 2013

On-campus
30,000 students
all courses

TECHNOLOGY

Open studies
Extension
~17,000
learners
enrolled

LITTLE/NO TECHNOLOGY

Off-campus
2000 students
50 Masters
since ~2005

open

14 MOOCs
750k
learners
since 2012
~15
MOOCs
under
construction

EDINBURGH DATA @ Feb 2016

2.2 million sign ups - **over 1.7 million** unique people enrolled
13.2 million video views
2.2 million quizzes submitted
1,433,374 active learners
408,833 forum posts made
114,541 completion certificates awarded
800+ videos made
200 countries represented
111 academics + **113** TAs involved
54 live course iterations
32 courses
15 academic schools
6 core staff
4 platforms
3 years

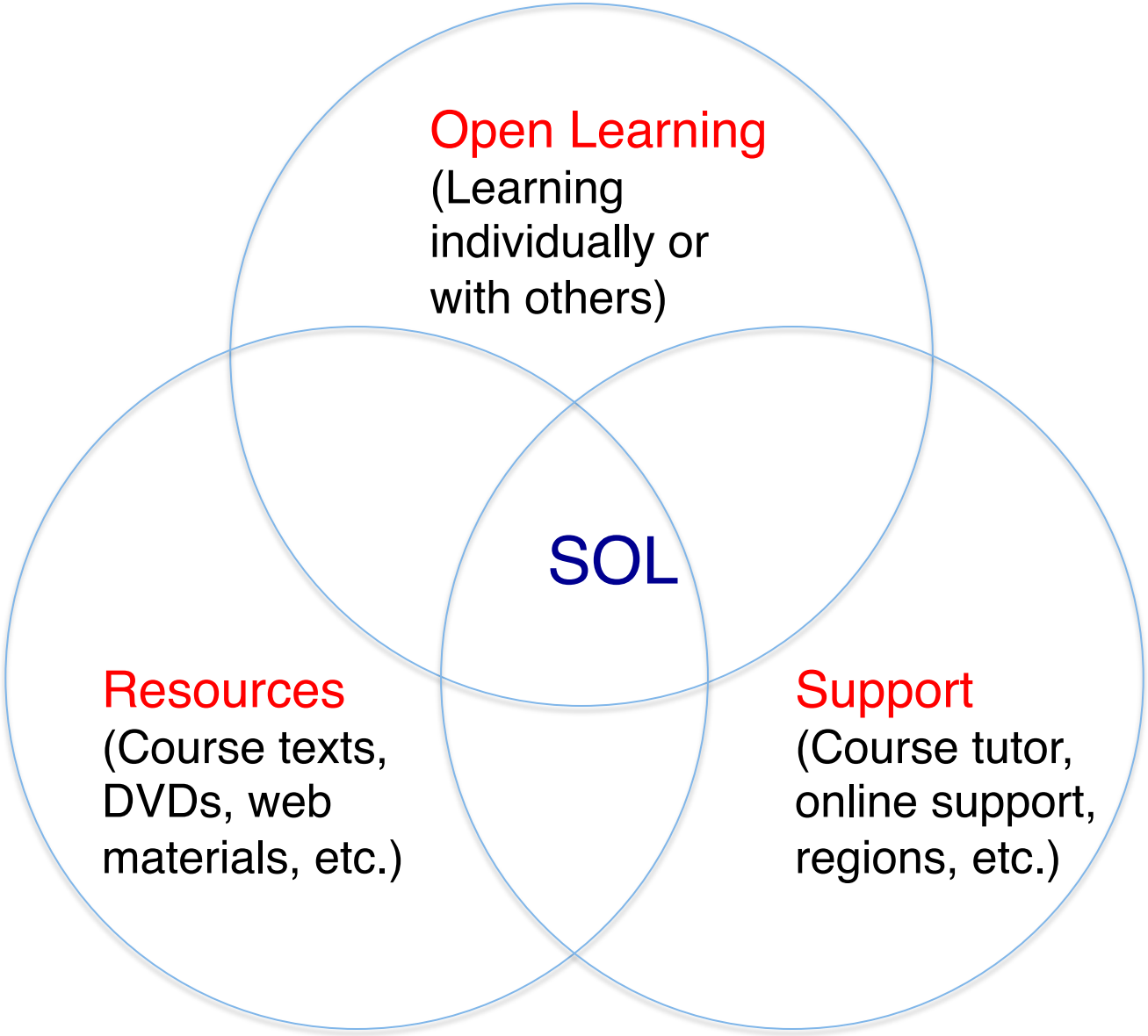
The Open University

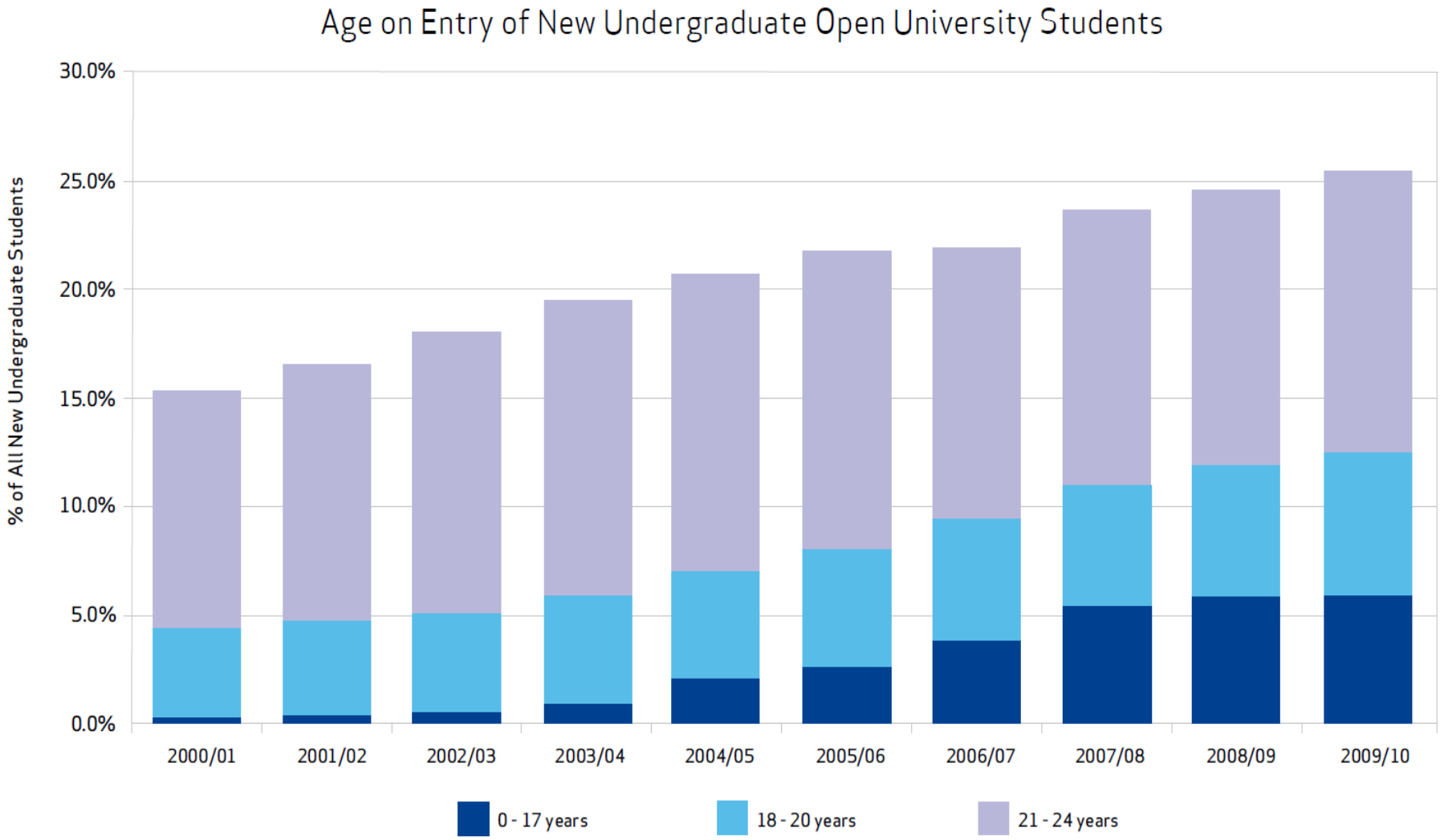
www.open.ac.uk

- Largest university in the UK
- Open admission
- Supported open learning
- 180,000 students
- 1,100 academic staff
- 7,000 Associate Lecturers (tutors)

Milton Keynes

Supported Open Learning Model





25% of undergraduates aged under 25

Open Education

- The Open University's mission is to be open to people, places, methods and ideas”
- 44% of undergraduates start without qualifications needed for a conventional university
- 12,000 students with disabilities, 20,000 students outside the UK
- Free access to some learning materials online
- 20 million downloads from iTunesU
- OpenLearn 35m visitors worldwide and 4.5m new visitors each year gaining a free first taste of learning with the OU.

OpenLearn

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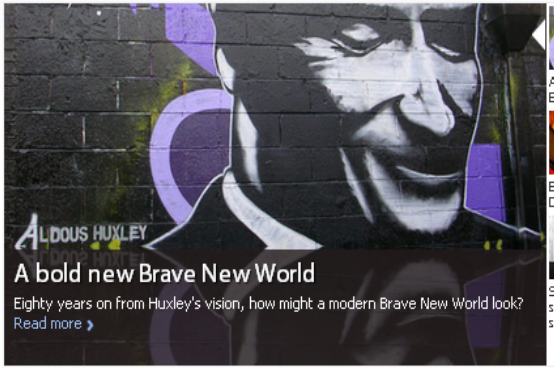
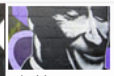
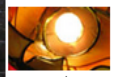


A bold new Brave New World

Eighty years on from Huxley's vision, how might a modern Brave New World look?
Read more ›



A bold new Brave New World



Entering the Dragon

Silicone implants: should the NHS step...

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What are Tag Clouds?

Discover

The Open University on iTunes U

New for the iTunes U App

Ecosystems

Discover the beautiful and complex relationships present in ecosystems around the world.

Play video

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Ecosystems | Volcanoes | Philosophy

Top downloads

1. Beginners' Chinese

Do you want to learn some basics in Mandarin Chinese? The tracks presented here are designed to give you a taste of Mandarin Chinese language and cult...

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Visit this subject

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Environment, Development and

Six evidence based statements about distance learning

- Distance learning pedagogies work
- Support for students influences retention
- Assessment can be supported by online systems
- Quality process - don't do it on your own
- Authentic activities reward everyone
- Personalisation for accessibility

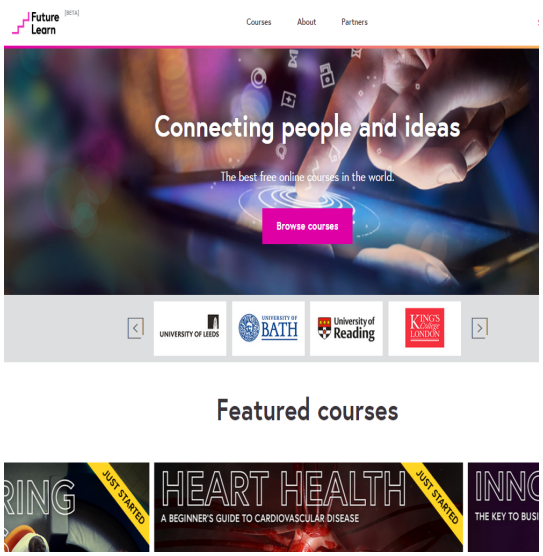
Four consequences

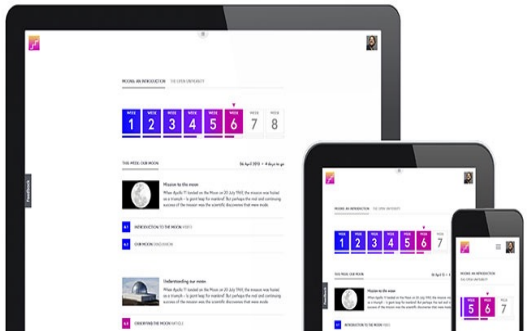
- Build on distance learning pedagogy. Starting from classroom experience misses on what we know about engaging learners at a distance.
- Plan to help learners who need support.
- Recognise the power of well-designed assessment.
- Ensure quality by working together

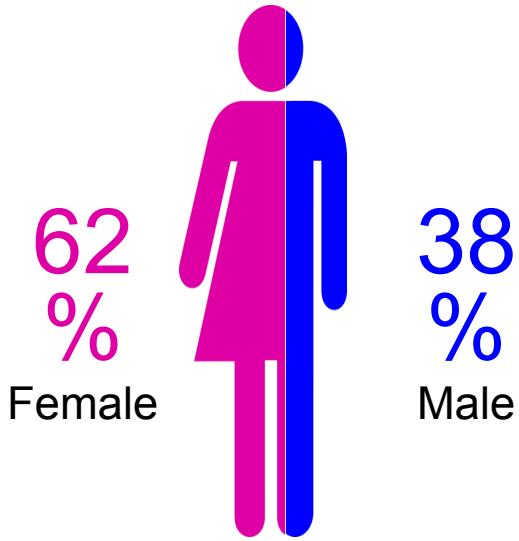
Learning for life

FUTURELEARN

Massive Open Online Courses







327 courses from 84 partners

Broad range of business, health, science, arts

Responsive platform

38% access on mobile devices

Over 3 million learners

6 million course sign-ups

Company formed by The Open University, launched in October 2013

FutureLearn conversations

- FutureLearn is founded on the idea of **learning through conversation**
- 400+ course runs that have finished on FutureLearn to date, an average of **24% of people who started courses, fully participated**
- **27% of our learners do not have a degree**. Our goal is to make higher education accessible to those who have traditionally found it too intimidating or expensive, or simply not right for them.
- **38% of learners take part in discussion on our courses**. On our record-breaking Understanding IELTS course, one step received over 15,000 comments

Thirty years ago

Home experiment kits

Journeys from informal to formal learning

Open Science Lab

The OpenScience Laboratory

YOUR PROFILE SIGN OUT

Home About StudentHome TutorHome IntranetHome

Last visited

EARTH

Virtual Skiddaw Field Trip (Beta Phase 1 Testing)

1 hour

Popular experiments

ENVIRONMENT

Maps and landforms

1 hour

ENVIRONMENT

iSpot

iSpot

Learn about wildlife, share your observations and get help identifying what you have seen.

1-3 hours

All experiments (page 1 of 3)

BIOLOGY

Biochemical Oxygen Demand

Remote real-time access to a 7 day laboratory experiment at The Open University

2 min /day

EARTH

Chondrites

Classification of chondrites by determining components present and their abundances.

2 h

BIOLOGY

Cold Adaptation

An investigation based in a Virtual Research Facility for animal physiology.

5-10 h

Display options

All experiments shown.

Show filter settings

Editing

Add new experiment

Edit access groups

Settings

News (new)

Feedback

Add a block

Add...

Experiments include

Remote access to laboratories and observatories: students can operate real physical equipment controlled remotely

Virtual laboratories and instruments: interactive screen experiments, photo-realistic recordings of physical experiments

Online field investigations: these can involve electronic access to a conventional field trip or a virtual experience using remotely-operated sensors

Citizen science: a distributed way of gathering data, where non-professionals collect or process data as part of a scientific enquiry.

Citizen science @ the OU

- Integrating teaching & learning with citizen science:

  www.iSpotnature.org : species ID skills
  www.Treezillla.org : ecosystem services, tree health
  www.opensciencelab.ac.uk : practical science, online experiments etc.

iSpot share nature

The OpenScience Laboratory

The Open University

Explore community | Identify | Help | Communities

Communities - UK and Ireland

Sign up to iSpot

Welcome to iSpot

A friendly and free community helping to identify wildlife and share nature.

Personalise

Create filters and projects to view iSpot your way.

UK and Ireland latest observations

« more

Filter by group:

more »

Help confirm global observations

« more

Filter by group:

more »

Introduction to Ecosystems - free online course now open for registrations

What is an ecosystem? What is co-evolution? How do species interact with their habitat? How do we preserve ecosystems? These are some of the questions posed and answered in The Open University's MOOC (Massive Open Online Course): **Introduction to Ecosystems**, which is currently in progress. Read on to find out more.

read more...

iSpot research paper published

ZooKeys

A new paper describing iSpot's crowd-sourcing approach to species identification has been published in the open-access journal *ZooKeys*.

read more...

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User login

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Username: *

Password: *

Log in

OU users log in here

Request new password

Create new account

Sign in using one of these accounts

Tweets

Follow

iSpot @iSpotnature 2 Feb

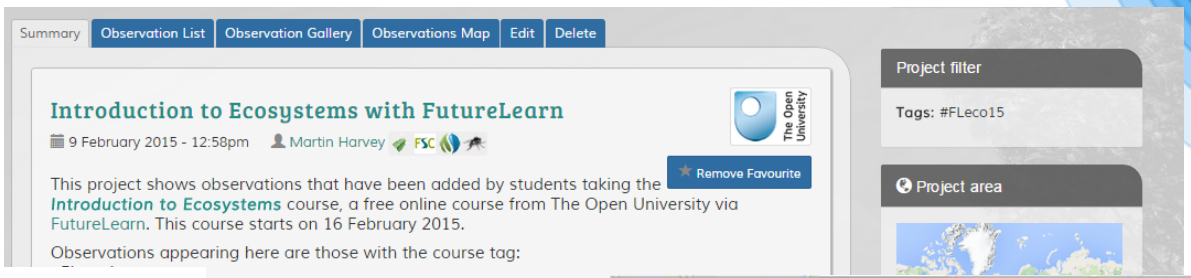
Latest news from @IETatOU about iSpot technical developments ispotnature.org/node/639520

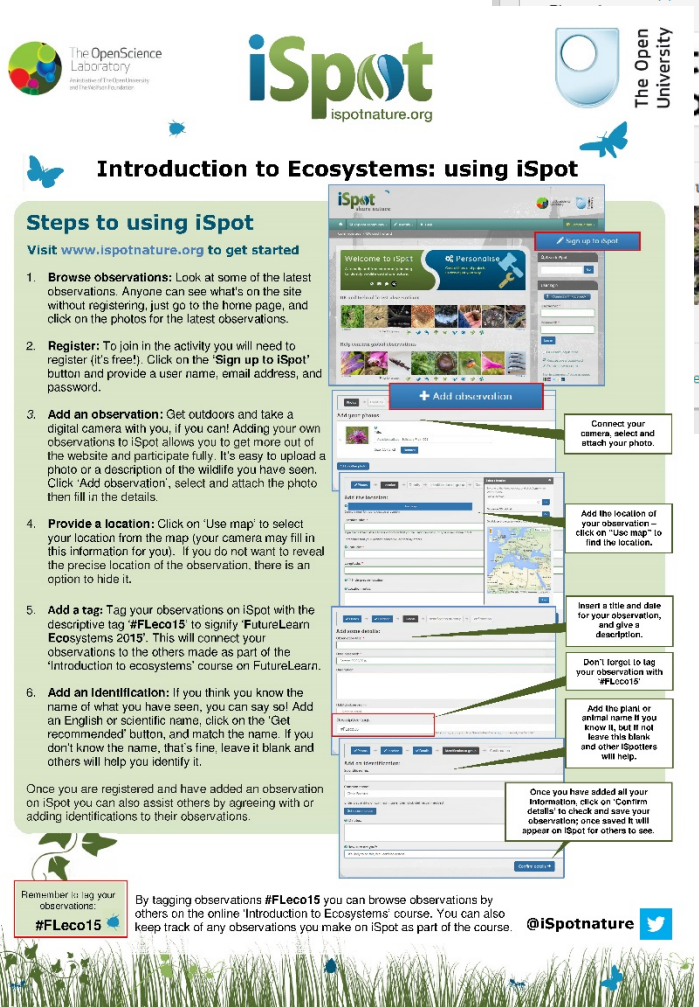
Expand

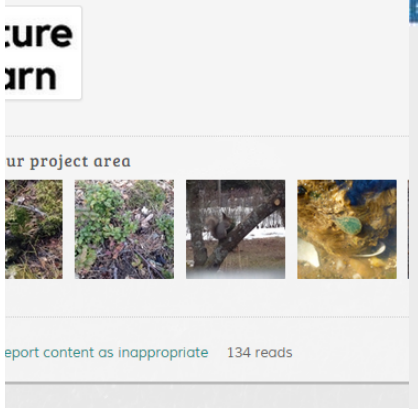
iSpot @iSpotnature 2 Feb

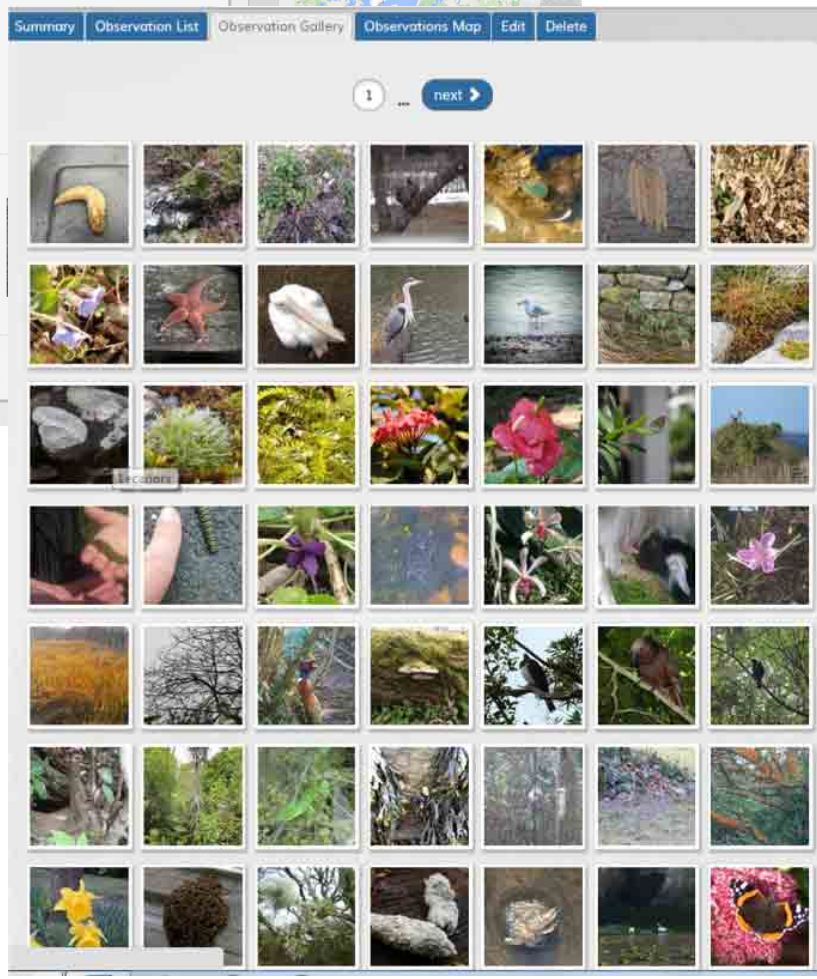
A thoughtful Jay ... ispotnature.org/node/639493 great close-up by DD on iSpot pic.twitter.com/Vj6BOXYJ2l

iSpot Project: Ecosystems MOOC









iSpot ispotnature.org User reputation system

Reputation in groups

Group	Reputation	Observations	Identifications	Received	Given
Other organisms		2	5	1	22
Birds		49	54	307	146
Invertebrates		232	290	437	359
Fish		2	1	2	6
Amphibians and Reptiles		5	7	28	16
Mammals		13	15	52	25
Plants		214	349	879	686
Fungi and Lichens		66	87	107	100

Brown Damselfly

next »

Observed by **Solipsist** on 28th June 2009

(Added to iSpot on 11th May 2010)

The brown colour is throwing me. Might be a rather muted coloured female Common Blue damselfly, or maybe a female Azure damselfly.

Location: West Stow Heath

Identification

Identification

Azure Damselfly (*Coenagrion puella*) by Solipsist at 10:45 am 11/05/10

Confidence: It might be this.

I agree!

Search Encyclopedia of Life for Coenagrion puella

View NBN map for Coenagrion puella

Enallagma cyathigerum by John Bratton at 4:15 pm 11/05/10 *likely ID*

Confidence: I'm as sure as I can be.

Notes: Based on the broad pale stripe on the thorax.

Remove your agreement

ID agreements ( ): 3 people agree with this identification.

Search Encyclopedia of Life for Enallagma cyathigerum

View NBN map for Enallagma cyathigerum

Other observations of *Enallagma cyathigerum*

« more more »

Comments

Identification features

12 May 2010 — RoyW

This recently emerged female damselfly can be identified using a combination of the following features (it can be sexed as a female because the ovipositor is visible under the 10th abdomenal segment at the tip of the abdomen);

1). The broad antehumeral stripes (the broad pale stripe mentioned by John in his identification above).

2). There is only one partial black stripe, or 'spur', on the side of the thorax (all similar *Coenagrion* species, including Azure, have two spurs).

3). There is a spine visible under the 8th abdomen segment (all dragonflies & damselflies have 10 segments to the abdomen - count back from the abdomen tip, ignoring the projections at the end of the 10th segment).

The first two points also apply to males.

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features

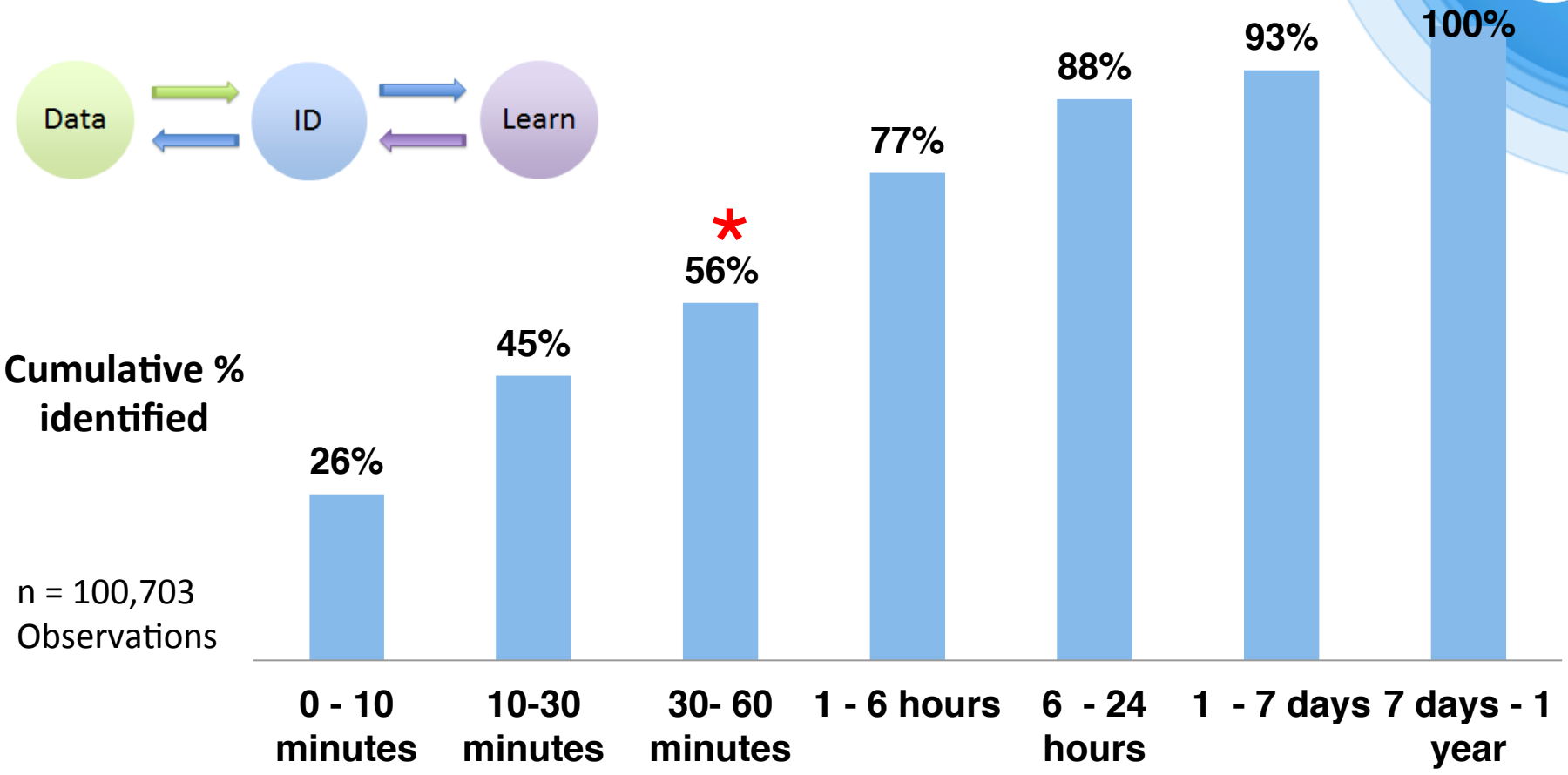
13 May 2010 — kitenet

Thanks for that detailed guide Roy, very helpful.

Martin Harvey
Open University - Biodiversity Observatory

The OpenScience Laboratory
An initiative of The Open University and The Wolfson Foundation

iSpot ID



iSpot social network species identification rate:

Time taken for the first ID to be offered

iSpot
ispotnature.org

iSpot news stories’

Katie discovers a moth

DAILY EXPRESS
CRUSADING FOR A FAIRER BRITAIN

Our Paper
Front and Back Pages, E-Edition and Back Issues...

Tuesday 10th November 2009 | Make us your HOME PAGE | What is RSS? | SEARCH:

HOME > NEWS / SHOWBIZ > UK NEWS > *Six-year-old finds UK's rarest moth*

UK NEWS

SIX-YEAR-OLD FINDS UK’S RAREST MOTH

Tuesday October 13,2009

By John Ingham

© Julian Dob

Katie's find will be passed to the Natur Museum

Stories

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Spotted in Britain for the first time, the voracious Asian moth

By DAVID DERBYSHIRE
Last updated at 2:05 AM on 13th October 2009

Comments (5) | Add to My Stories

A voracious Asian moth that devours one of our most popular garden shrubs has been spotted in Britain for the first time.

The Euonymus Leaf Notcher - a distinctive pest whose large furry body has similar markings to a wasp - was spotted by a six-year-old on a windowsill of her Berkshire home.

Natural history experts warn it may herald the start of an invasion.

The pest from Asia: An Euonymus Leaf Notcher spotted in Britain

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Online at sainsburys.co.uk
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sainsburys.co.uk
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ONE MONTHS FREE HOMECARE
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likely ID

ID agreements (👍): 4 people agree with this identification.

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Home > Environment > Nature

Six-year-old girl discovers Asian moth in UK

By Lauren Turner, Press Association

Tuesday, 13 October 2009

SHARE | PRINT | EMAIL | TEXT SIZE

A shrub-eating moth has been discovered in the UK for the first time – thanks to the keen eye of a six-year-old girl.

Katie Dobbins' father Julian took a photograph of the furry moth after she found its body at their home in Upper Bucklebury, Berkshire.

He uploaded it onto a wildlife website run by the Open University with the message: "My daughter found this strange moth on our windowsill. Very keen to find out what it is... and why it is so furry."

To everyone's surprise, an Open University nature expert quickly identified the creature as an Euonymus Leaf Notcher, native to Asia.

An Open University spokeswoman said: "The UK moth fauna is very well-studied so it's unusual for brand new species to be found.

A photograph issued by Open University of an Euonymus Leaf Notcher - a rare shrub-eating moth never before seen in the UK. The moth was found by Katie Dobbins, 6, whose father Julian took a photograph of the furry moth after she found its body at their home in Upper Bucklebury, Berkshire.

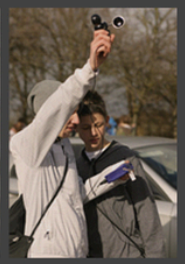
ENLARGE

Results so far…

- >53,000 registered users
- >550,000 observations
- >1 million images
- >30,000 species identified globally
- 12, 600 British species (9% of conservation listing)
- > 1 million users in >2.5 million sessions
- 24 million page views

Home | Available inquiries | Inquiry results | Forums | Help | Contact login | new user

nQuire Explore the world by scientific method



- question
- plan
- observe
- analyse
- discuss

People creating, imagining, investigating, learning together

Making change happen with nominet trust

The OpenScience Laboratory

The Open University

CREST Silver Awards

14 members.

Are birds scared by noise?

16 members.

Bumble bees in gardens

INQUIRING ROCK HUNTERS

Rock Hunters Welcome

News

New nQuire website

You are visiting the new nQuire website (www.nquire.org.uk/).

You can access the previous version of the nQuire website at http://pi.nquire.org.uk/.

10/04/2014 - 12:35 **Read**

Authoring tool tutorial

We have posted a new tutorial about nQuire's authoring tool. **Check it out!**

18/10/2013 - 15:03 **Read**

Young Citizen Inquiry project

The Young Citizen Inquiry project has just

Citizen Inquiry

Citizen science
+ personal
inquiry
+ shared
creativity
= citizen inquiry

eLearning ecology

- Multiple choice branching
- Drill and Practice
- Databases and Simulations
- Intelligent Tutors and Games
- Virtual Classrooms
- Mixed Realities
- And MOOCs as well

Ecology

- Everything surviving
- 100 MOOCs = Honours Degree
- 25/40 MOOCs = Masters Degree
- 1 MOOC = 80 study hours
- 1 MOOC = 1000 Minnows
- 1 Minnow = 5 minute highlight
- 100,000 Minnows = 1 baby killer whale

D+E RESEARCH IN DIGITAL EDUCATION

DIGITAL CULTURES

LEARNING ANALYTICS

POLICY

CHILDREN & TECHNOLOGY

How technology, culture, learning and policy intersect within research and practice in digital education.

www.de.ed.ac.uk

from the manifesto:

Place is differently important online.

Distance is temporal, affective, political: not simply spatial.

Don’t succumb to campus envy: we are the campus.

Teacherbot: making automated ‘teaching assistants’ easy to create

Ask teacherbot: are robots the answer?

A digital tool created by the University of Edinburgh uses Twitter to engage with Mooc learners

May 21, 2015

By Chris Havergal Twitter: @CHavergalTHE

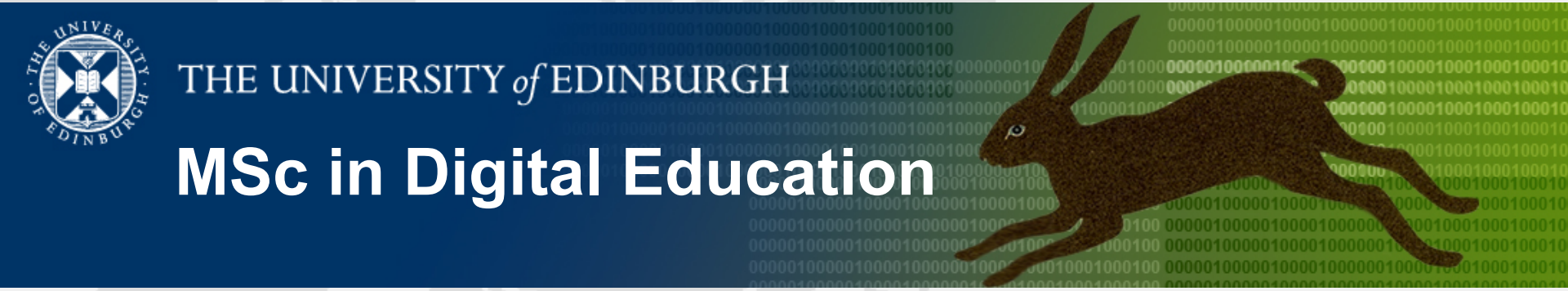
Piloted in the E-learning and Digital Cultures MOOC 2015

Now being developed for use across the university

“Coding the teacher: teacherbot”

A sample of the sorts of automations we are building:

- **Automated twitter responses (*UoE ongoing*)**
- **Adaptive comparative judgement for peer assessment (*UoE ongoing*)**
- **Semantic analysis of discussion forums (TA dashboard)**
- **Group assigner (random, 1st come 1st served, learner choice, learner characteristics**
- **Group dynamics visualiser (TA dashboard)**
- **Objective test harvesting & piloting**
- **Random question delivery & analysis for mastery**
- **Intelligent automated learner ‘prompter’ (TA dashboard)**
- **Simple A-B experiment management system**



THE UNIVERSITY of EDINBURGH

MSc in Digital Education

fully online, distance Masters programme

established in 2006

based in the School of Education

around 180 students

students are: digital education professionals, academics, developers, researchers, teachers, training professionals, private and public sector

participants from 40+ countries

40+ current and past participants are University of Edinburgh colleagues

Courses in:

An introduction to digital environments for learning

Research methods for digital education

Assessment, learning and digital education

Course design for digital environments

Introduction to learning analytics

Digital education in the global context

Digital education: strategy and policy

Digital futures for learning

Education and digital culture

Information literacies for online learning

Introduction to digital game-based learning

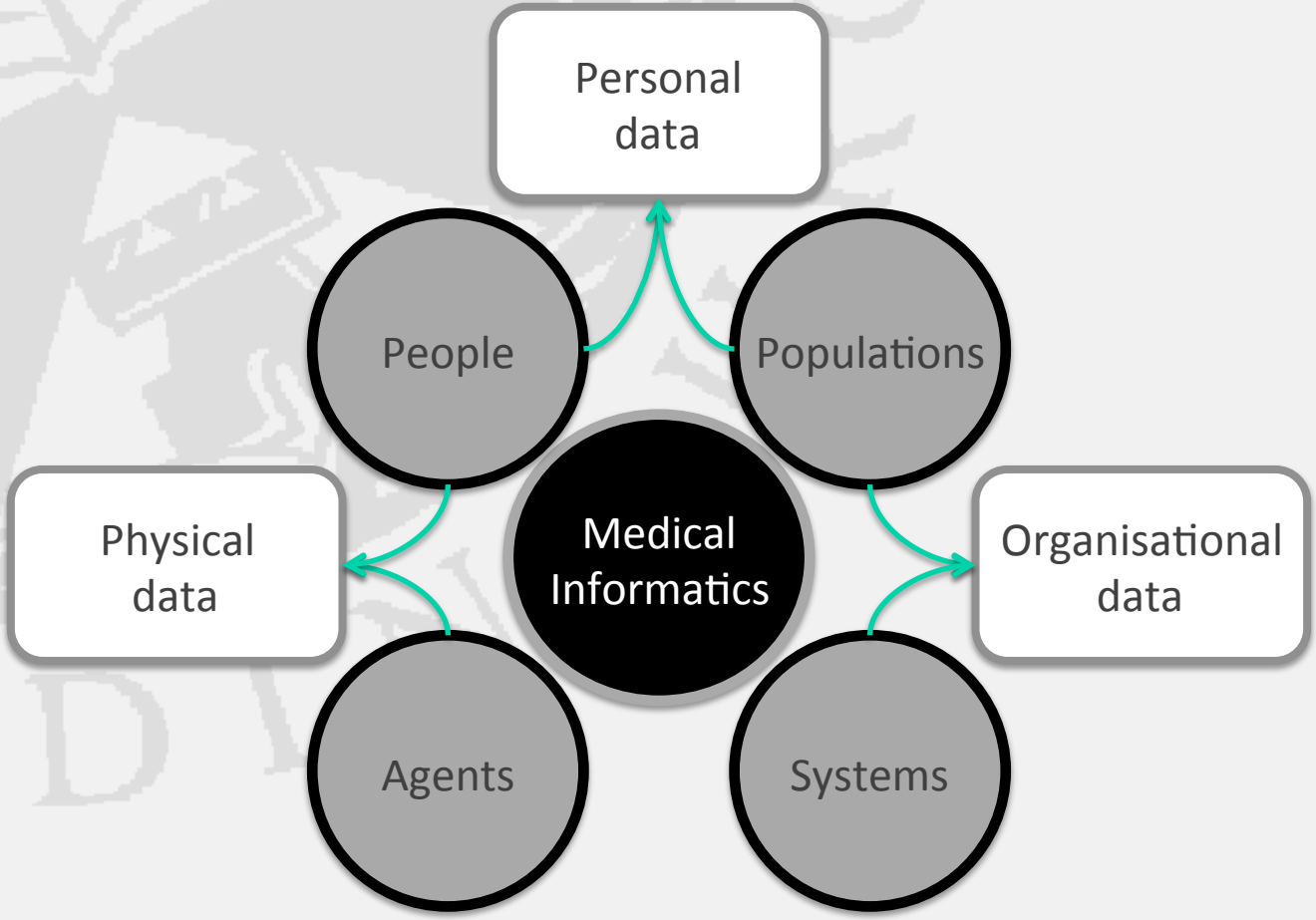
The digital student experience

Understanding learning in the online environment

Recent Partnerships

- **Farr Institute**
  - Safe haven for all NHS Scotland data
- **European Institute of Technology, Digi**
  - Part of the UK node + UCL, Imperial
  - 8 European nodes, ~ €80M/pa spend
- **Design Informatics**
  - In partnership with Edinburgh College of Art
- **Digital Catapult**
  - UK "Digital Economy' push
- **Alan Turing Institute**
  - DataScience Centre of Excellence
  - Edinburgh, UCL, Cambridge, Oxford, Warwick
- **We connect globally with a wide group of orga**

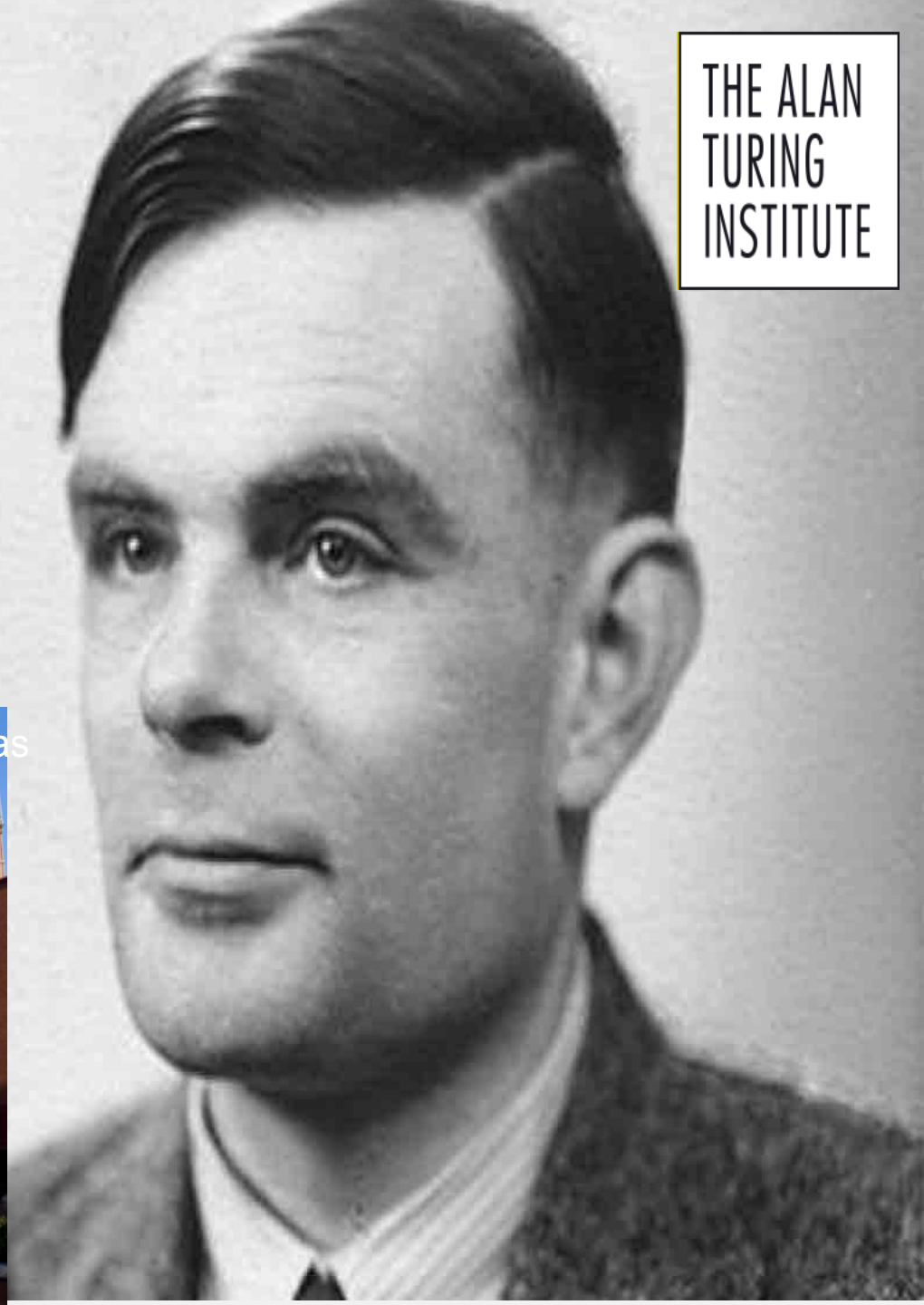
Data


Personal data
People
Populations
Physical data
Medical Informatics
Organisational data
Agents
Systems

“Headed by the universities of Cambridge, Edinburgh, Oxford, Warwick and UCL - the Alan Turing Institute will attract the best data scientists and mathematicians from the UK and across the globe to break new boundaries in how we use big data in a fast moving, competitive world.”

Secretary of State for Business, Innovation and Skills, 28 Jan 2015

Headquarters at the British Library, St Pancras



THE ALAN TURING INSTITUTE

SHEILA project: Supporting Higher Education to Integrate Learning Analytics

To assist European universities to become more mature users and custodians of digital data about their students as they learn online.

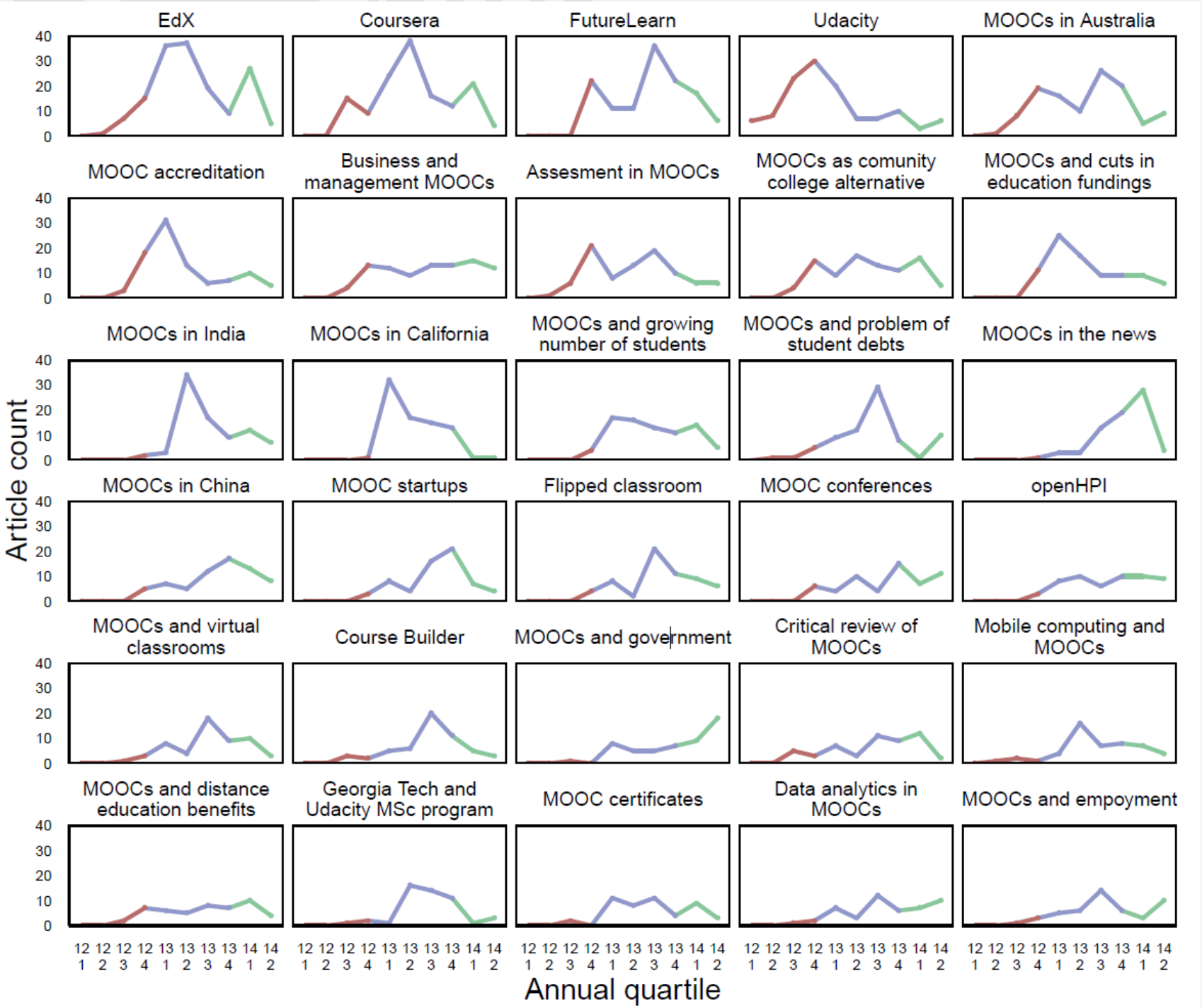
Funded by the European Commission, the SHEILA Project will build a policy development framework across Europe that promotes formative assessment and personalized learning.

http://www.de.ed.ac.uk/project/supporting-higher-education-integrate-learning-analytics-sheila

Main public media outlets for MOOC coverage

#	Source	Article Count	#	Source	Article Count
1	U-Wire	281	11	The Australian	66
2	The Australian Financial Review	162	12	Business Wire	62
3	Chronicle of Higher Education	143	13	Associated Press Newswires	61
4	The Times Higher Education Supplement	125	14	Education Letter	60
5	PR Newswire (U.S.)	102	15	CMP TechWeb	54
6	The Conversation	83	16	theAustralian.com.au	51
7	Financial Times (FT.Com)	76	17	Financial Times	42
8	NYTimes.com Feed	76	18	The Wall Street Journal	38
9	The New York Times	75	19	The Wall Street Journal Online	38
10	Washington Post.com	69	20	Silicon Valley/San Jose Business Journal Online	37

Kovanović, V., Joksimović, S., Gašević, D., Siemens, G., & Hatala, M. (2015). What public media reveals about MOOCs: A systematic analysis of news reports . *British Journal of Educational Technology, 46*(3), 510–527.

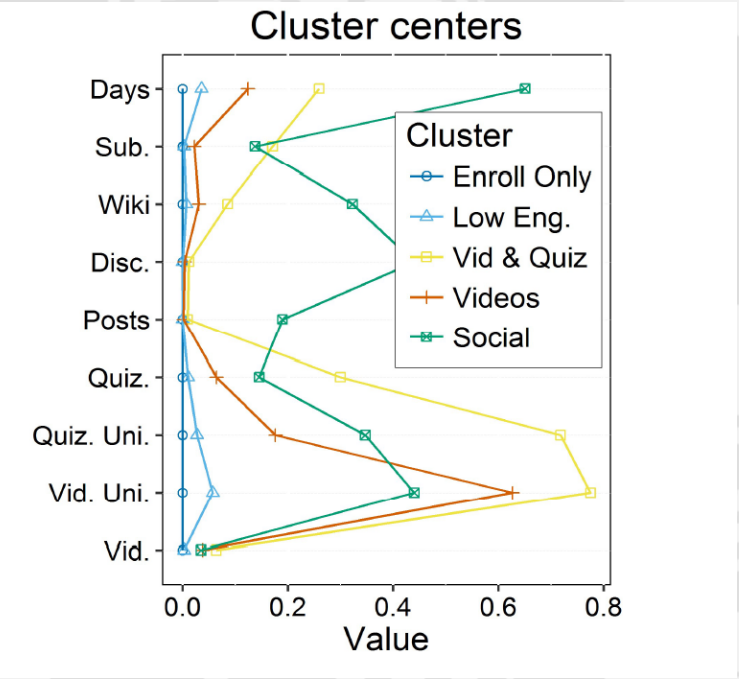

EdX
Coursera
FutureLearn
Udacity
MOOCs in Australia
MOOC accreditation
Business and management MOOCs
Assesment in MOOCs
MOOCs as comunity college alternative
MOOCs and cuts in education fundings
MOOCs in India
MOOCs in California
MOOCs and growing number of students
MOOCs and problem of student debts
MOOCs in the news
MOOCs in China
MOOC startups
Flipped classroom
MOOC conferences
openHPI
MOOCs and virtual classrooms
Course Builder
MOOCs and government
Critical review of MOOCs
Mobile computing and MOOCs
MOOCs and distance education benefits
Georgia Tech and Udacity MSc program
MOOC certificates
Data analytics in MOOCs
MOOCs and empoyment
Article count
0
10
20
30
40
12 1
12 2
12 3
12 4
13 1
13 2
13 3
13 4
14 1
14 2
Annual quartile

Trends of future research in MOOCs

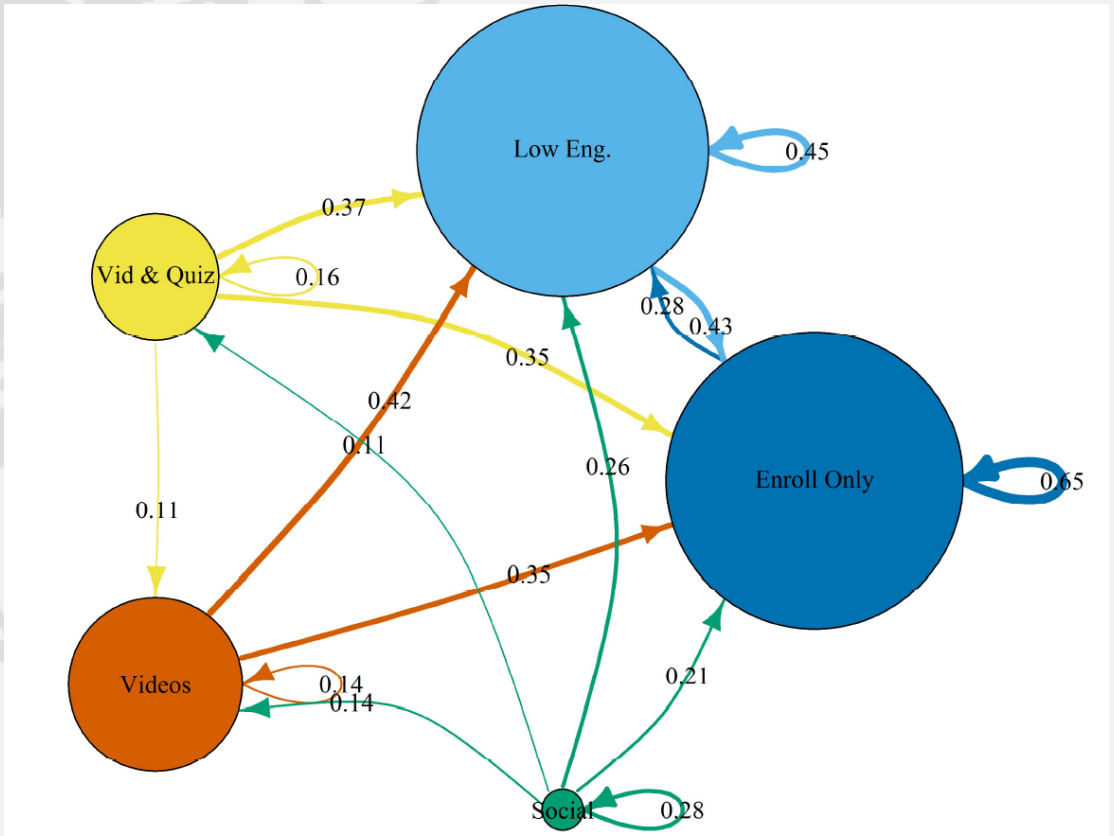
Theme	Size	Accepted funding	Authors avg. (SD)	Citations avg. (SD)	Major Fields	Qualitative	Mixed	Quantitative
Cluster 1 Engagement and Learning Success	14	6 (42.9 %)	2.2 (1.3)	15.0 (9.8)	Education (14) Computer Science (4) Engineering(3)	1	3	10
Cluster 2 MOOC Design and Curriculum	14	2 (14.3 %)	2.9 (2.1)	20.2 (13.7)	Education (19) Computer Science (7) Engineering(4)	3	5	6
Cluster 3 Self-Regulated Learning and Social Learning	15	6 (40.0 %)	2.3 (0.9)	21.7 (9.2)	Education(25) Computer Science (3)	8	6	1
Cluster 4 SNA and Networked Learning	19	9 (47.4 %)	2.1 (0.8)	20.7 (15.6)	Education (23) Computer Science (5)	2	12	5
Cluster 5 Motivation, Attitude and Success Criteria	16	5 (31.2 %)	2.8 (1.1)	23.1 (9.2)	Education (25) Engineering (5) Social Sciences(4)	5	7	4
Total	78	28 (35.8 %)						

Gašević, D., Joksimović, S., Kovanović, V., G. Siemens (2014). Where is research on massive open online courses headed? A data analysis of the MOOC Research Initiative. *The International Review of Research in Open and Distance Learning*, 15(5), 134-176.

Strategies of returners



Cluster	Students	%
Enrolled only (E)	22,932	44.1
Low Engagement (LE)	21,776	41.8
Videos & Quizzes (VQ)	2,120	4.1
Videos (V)	5,128	9.9
Social (S)	94	0.2



AUTONOMOUS LEARNERS:

- Identify and refine own goals
- Identify preferred learning partners
- Identify preferred teacher/mentor/guide
- Identify preferred language/visualisation
- Choose route to goals
- Define personal success criteria
- Have reflective metastrategies

Informal to formal learning

- Informal is Booming
- Technology supports Access
- Technology supports Reuse
- Barriers to Formal
- Increasing Learner Autonomy
- Increasing Learner Pathways
- HOW BEST TO BUILD BRIDGES?

Optimistic Conclusion

- Life Long Learning
- Learner Researchers
- MOOCs are Global
- Top Universities making MOOCs
- Increasing Learner Autonomy
- Enhancements via Analytics
- Peer and Self Assessment

Credits

- Jeff Haywood
- Sian Bayne
- Amy Woodgate
- Andrew Morris
- Richard Kenway
- Dragan Gasevic
- Jonathan Silvertown
- Nick Braithwaite
- Martin Harvey
- Doug Clow
- Richard Greenwood
- Mike Dodd
- Richard Lovelock
- Tony Rebelo (SANBI)
- Jon Rosewell
- Will Woods
- Kevin Mcleod
- Rachel Ward
- Biodiversity Mentors
- Denise Whitelock
- Mike Sharples
- Patrick McAndrew
- Janice Ansine