

An Introduction to the Topics Course

Department of Computing, Imperial College London
Topics course organiser (Maria Valera and Catarina Fernandes)

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Huxley Building 228

Slides based on Tristan Allwood notes

Schedule- Thursday 15Th

- 14.00h - 14.30h: Dr Maria Valera (Topics course organiser)
- 14.30h - 15.00h: Dr Bjoern Schuller
- 15.00h - 15.10h Break
- 15.10h - 15.40h: Dr Herbert Wiklicky
- 15.40h - 16.10h: Prof. Duncan Gillies
- 16.10h - 16.20h Break
- 16.20h - 16.50h: Dr Peter McBrien

Schedule- Friday 16Th

- 14.00h - 14.30h: Dr Fariba Sadri
- 14.30h - 15.00h: Prof. Chris Hankin
- 15.00h - 15.10h Break
- 15.10h - 15.40h: Prof. Abbas Edalat
- 15.40h - 16.10h: Dr Stefan Leuteneger
- 16.10h - 16.20h Break
- 16.20h - 16.50h: Dr Catarina Fernandes (Topics course organiser) - How to reference and Questions and Answers about Topics

Introduction to the Topics in Computing Course

The topics element of the first year is to give you experience of **Problem Based Learning** and **working in groups**.

- Problems are research oriented
- Students work in small groups
- Staff are facilitators rather than teachers.

Problem based learning is intended to help you develop **transferable skills** - those that you can apply to any activity.

What you have to do

- Background study on a topic of research interest.
 - Transferable Skill: Self directed learning
- Write a web article on the subject aimed at an intelligent, non-specialist, audience.
 - Transferable Skills: Technical writing, web design.
- Present your results in a short talk at the Topics-Fest.
 - Transferable Skill: Communication

What not to do

1. Find a popular article on the subject
 - (eg from Wikipedia)
2. Cut and paste it into a web page whose layout you like.
 - If you do this you will receive a zero mark!

The Topics:

- Automated Music Emotion Recognition
- Quantum Computation
- Affective Computing
- Big Data
- Intention Recognition
- Cyber Security
- Neural Networks and their applications
- Multi-Sensor Robot Localisation and Mapping

Getting Started

1. Initial reading:

- Popular web articles (wikipedia etc.)
- Recommended reading (from your supervisor)

2. Deeper study:

- Frequently cited articles (Google Scholar)
- Articles referred to in the initial reading

3. Group meetings:

- Aim to have a group discussion each week.
- Discuss individual reading and decide the plan for the week

As you progress

1. Always make summary notes on the articles you read.
2. Try to organise the material around research issues rather than individual articles.
3. Draft your material directly in html

Finishing off

Once the content is complete and well organised you can beautify your web site:

1. Find attractive appropriate pictures (remember to cite the source)
2. Draw some illustrative schematic diagrams
3. Get a good distribution of material in the web pages.

Prepare slides for the talk using the same images and diagrams on the web site.

Presentations

Every group gives a short presentation on **Topics Fest Day** at the end of term.

All presentation material must be displayed through a browser. This is to avoid excessive turn-round delays.

The easiest way to do this is to prepare the slides using open-office or powerpoint and save them as a pdf file.

The restriction means that animations must be constructed explicitly, ie you need a separate slide for each stage of an animation.

Support

Remember that this is an exercise in **Self Directed Learning**.

It is therefore up to you to decide on the direction you go in and the material you study

However there are three contact times when the group leader can see your supervisor to discuss progress

- Week 2: Discuss initial reading
- Week 5: Optional Progress Meeting
- Week 8: Optional Progress Meeting

Formation of Groups

You should build groups of 2,3 or 4 in size. However, groups will be made by 4 as required.

If you want to form a group with particular friends you should use the projects portal system linked from CATE (more on the next slide).

The leader of the group will rank the topics based on the talks. The ranking goes from 1 (first choice) to 6 (last choice).

Formation of Groups

Academic Year 2012-2013
v7.1 Personal Page
Page created on Wed Jan 9 09:06:41 GMT 2013

Your identity:
 First Name: Maria Last Name: Valera-Espina Login: mvalerae Category: TF Your CATE adviser is: Zappacosta, Silvana (sza)

Related external sites:
Select icon Email and Modules Subscription:  Teaching Database: 

View timetables of exercises:
For information about interactive use of these tables  

Select period (defaults to current)
 AUTUMN TERM
 Christmas
 SPRING TERM
 Easter
 SUMMER TERM
 Jun-Jul
 Aug-Sept

Select class

UGs			PGs	
COMP	JMC	ISE	MSc's	
1st	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2nd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3rd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4th	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Occasional			<input type="radio"/> PhD's	
<input type="radio"/> External				

 or 

Access other CATE functionalities:
Select icon Analytics: 
Departmental Grading Schema: 
Documentation: 
Late Submissions and Extensions: 
Lecture Notes and Exercises Registration: 
Projects Portal: 
Special Activities: 
Students Individual Records: 

 cate@imperial.ac.uk

Formation of Groups

Academic Year 2012-2013

Projects Portal

Your identity:

	First Name	Last Name	Login	Category
	Maria	Valera-Espina	mvalerae	TF

Access to projects information and administration:

- For general information on the logistics of the projects follow the appropriate [Info](#) link. These are maintained by the corresponding Organiser; all relevant enquiries should be addressed to them.
- For detailed administrative aspects of the projects (proposals, offers, selections, allocations, timetables and others as applicable) follow the appropriate [Admin](#) link. The functionality is controlled by the deadlines imposed by the corresponding Organiser.

Generic title	Organiser	Modules targeted	Class(es)	General Information	Administration
3rd Year Group Project	Anandha Gopalan (axgopala)	362 - 3rd Year Group Projects	j3 c3	Info	Admin
UG Individual Project	Anandha Gopalan (axgopala)	301 - Individual Project BEng	c3 occ	Info	Admin
		301I - Individual Project BEng - ISE	i3	Info	Admin
		301J - Individual Project BSci - JMC	j3	Info	Admin
		401 - Individual Project MEng	occ c4	Info	Admin
		401I - Individual Project MEng - ISE	i4	Info	Admin
		401J - Individual Project MSci - JMC	j4	Info	Admin
MRes Research Project (1st)	 Krysia Broda (kb)	513 - MRes Research Project (1st)	r5	Info	Admin
MSc Group Project	Reuben Rowe (rru07)	530 - Software Engineering Practice	v5	Info	Admin
		533 - Software Engineering Group Project	s5	Info	Admin
MRes Research Project (2nd)	 Krysia Broda (kb)	514 - MRes Research Project (2nd)	r5	N/A	Admin
Independent Study Option	Timothy Kimber (tk106)	512 - Independent Study Option	a5 s5	Info	Admin
		523 - MAC Individual Project	a5	Info	Admin
		541 - MSc Computing Science Individual Project	v5	Info	Admin

Formation of Groups

Access to projects information and administration:

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UG Individual Project	Anandha Gopalan (axgopala)	301 - Individual Project BEng 3011 - Individual Project BEng - ISE 301J - Individual Project BSci - JMC 401 - Individual Project MEng 4011 - Individual Project MEng - ISE 401J - Individual Project MSci - JMC	c3 occ i3 j3 occ c4 i4 j4	Info	Admin
MRes Research Project (1st)	 Krysia Broda (kb)	513 - MRes Research Project (1st)	r5	Info	Admin
MSc Group Project	Reuben Rowe (rnr07)	530 - Software Engineering Practice 533 - Software Engineering Group Project	v5 s5	Info	Admin
MRes Research Project (2nd)	 Krysia Broda (kb)	514 - MRes Research Project (2nd)	r5	N/A	Admin
Independent Study Option	Timothy Kimber (tk106)	512 - Independent Study Option	a5 s5	Info	Admin
MSc Individual Projects	Timothy Kimber (tk106)	523 - MAC Individual Project 541 - MSc Computing Science Individual Project 542 - MSc Computing Science (Specialist) Individual Project 543 - MRes Individual Project	a5 v5 s5 r5	Info	Admin
1st Year Computing Topics	Maria Valera-Espina (mvalerae)	163 - Computing Topics	c1	N/A	Admin

Analytics:

- [Statistical distribution of active proposals and allocations](#) (access restricted to staff)

Formation of Groups

CATE Projects - Mozilla Firefox

https://cate.doc.ic.ac.uk/projects/admin.cgi?key=2013:8;jib13

Most Visited News Downloads Software Hardware Developers Help Search Shop DoC The CPAN Search Site... JEWEL CRIME

Firefox CATE Project Allocation Pr... 2012-2013 Submissions CATE Projects CATE Project Selection for...

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Page created on: Fri Jan 10 16:19:25 GMT 2014



Administration Page

User: [REDACTED] - COMPUTING 1
(c1 - CO)

- Proposals database
 - [Search the database](#)
- Student selection
 - [Groups membership](#)
 - [View your selected and shortlisted projects](#)
- Allocation
 - [Allocation, leading to assessment reports and timetable, if applicable](#)

[Personal Page](#) [Projects portal](#) Zappoldi.com®

Formation of Groups

CATE Project Selection for jib13 - Mozilla Firefox

https://cate.doc.ic.ac.uk/projects/groups.cgi?key=2013:8:none:jib13

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Firefox □ CATE Project Allocation Pr... □ 2012-2013 Submissions □ CATE Project Selection for j... □ CATE Project Selection for j...

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Groups Membership

User: - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

Admin

Membership Status

- none at present -
If you want to declare yourself as the leader of a new group, then press on this button 

Existing Groups

Group	Leader	Secondary Members	Unassigned role	Signed in
TOTALS=0	0	0	0	0

Admin

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Formation of Groups

CATE Project Selection for jib13 - Mozilla Firefox
https://cate.doc.ic.ac.uk/projects/groups.cgi?key=2013&none;jib13

Groups Membership

User: **(c1 - CO)** - COMPUTING 1

Module: **163 - Computing Topics**

Admin

Membership Status

LEADER of group 1

Warning If you want to remove the group completely (remove yourself as leader and any other secondary member declarations you have done) and provided that you have not made any project proposal selections, then press this button **Clear**

Declare Secondary Members of your Group

Choose student as secondary member **Select**

Existing Groups

Group	Leader	Secondary Members	Unassigned role	Signed in
1	(c1 - CO)	0	0	0
TOTALS=1	1	0	0	0

Admin

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Formation of Groups

CATE Project Selection for jib13 - Mozilla Firefox
https://cate.doc.ic.ac.uk/projects/groups.cgi?key=2013&none;jib13

Groups Membership

User: [REDACTED] - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

Admin

Membership Status

LEADER of group 1

Warning If you want to remove the group completely (remove yourself as leader and any other secondary member declarations you have done) and provided that you have not made any project proposal selections, then press this button **Clear**

Declare Secondary Members of your Group

[REDACTED] - c1 **Select**

Existing Groups

Group	Leader	Secondary Members	Unassigned role	Signed in
1	[REDACTED] - c1	0	0	0
TOTALS=1	1	0	0	0

Admin

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Formation of Groups

Groups Membership

User: - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

Admin

Membership Status

LEADER of group 1

Warning If you want to remove the group completely (remove yourself as leader and any other secondary member declarations you have done) and provided that you have not made any project proposal selections, then press this button

Clear

Declare Secondary Members of your Group

Choose student as secondary member 

Existing Groups

Group	Leader	Secondary Members	Unassigned role	Signed in
1	 - c1	 - c1		NOT YET SIGNED 
TOTALS=1	1	1	0	0

Admin

Formation of Groups

CATE Project Selection for hc313 - Mozilla Firefox

https://cate.doc.ic.ac.uk/projects/groups.cgi?key=2013:8:none:hc313

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Groups Membership

User: [REDACTED] - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

[Admin](#)

Membership Status

SECONDARY MEMBER of group 1 (**unconfirmed** as you have not yet signed into the group - see below)

Existing Groups

Group	Leader	Secondary Members	Unassigned role	Signed In
1				Sign
TOTALS=1	1	1	0	0

[Admin](#)

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Formation of Groups

CATE Project Selection for hc313 - Mozilla Firefox

https://cate.doc.ic.ac.uk/projects/groups.cgi?key=hc313&none:hc313

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Page created on: Fri Jan 10 16:39:31 GMT 2014



Groups Membership

User: [REDACTED] - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

[Admin](#)

Membership Status

SECONDARY MEMBER of group 1

Existing Groups

Group	Leader	Secondary Members	Unassigned role	Signed In
1	[REDACTED] - c1	[REDACTED]		2014 Jan 10 16:39:31
TOTALS=1	1	1	0	1

[Admin](#)

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Formation of Groups

CATE Project Selection for jib13 - Mozilla Firefox
https://cate.doc.ic.ac.uk/projects/groups.cgi?key=2013:8:none:jib13

User: [REDACTED] - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

Admin

Membership Status

LEADER of group 1

Warning If you want to remove the group completely (remove yourself as leader and any other secondary member declarations you have done) and provided that you have not made any project proposal selections, then press this button **Clear**

Declare Secondary Members of your Group

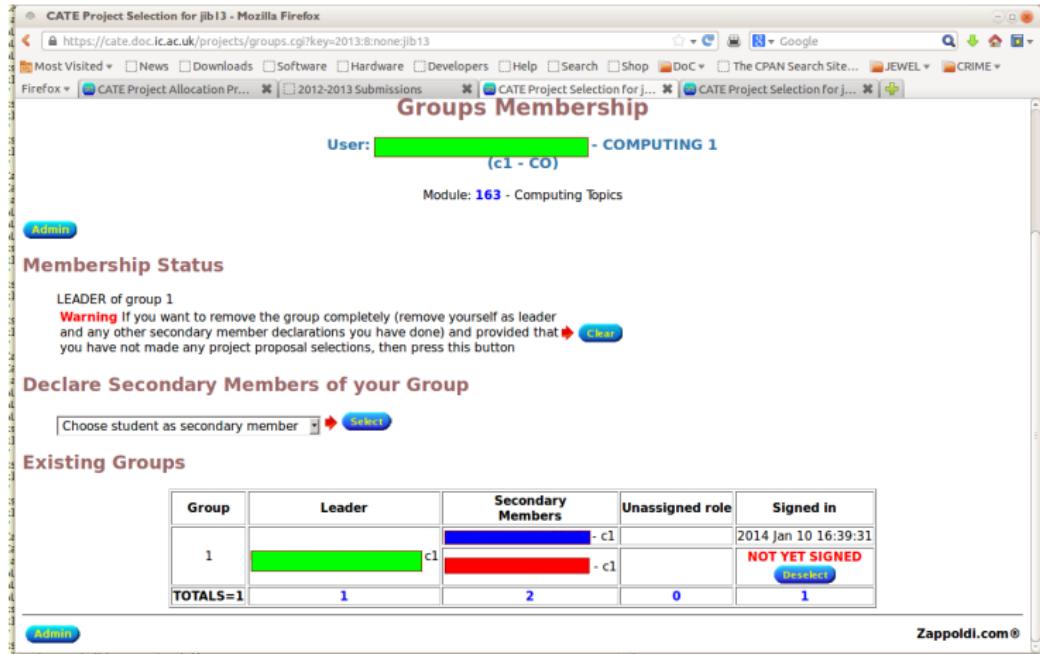
Choose student as secondary member **Select**

Existing Groups

Group	Leader	Secondary Members	Unassigned role	Signed in
1	[REDACTED] - c1	[REDACTED] - c1		2014 Jan 10 16:39:31 NOT YET SIGNED Deselect
TOTALS=1	1	2	0	1

Admin

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Select Topics

CATE Project Proposals - Mozilla Firefox

https://cate.doc.ic.ac.uk/projects/proposals.cgi?key=2013:8:none:jib13

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Administration Page

User: [REDACTED] - COMPUTING 1
(c1 - CO)

Staff Proposed Projects

- View all active proposals that apply to 1st Year Computing Topics

Search by:

- Proposer (select one)
- Keywords (separate with blank spaces) in:
title
and
description

Admin

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Select Topics

CATE Project Proposals - Mozilla Firefox

https://cate.doc.ic.ac.uk/projects/proposals.cgi?key=2013:all:jib13

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Search Results

Admin Search

The popularity score is a function of the numbers of individuals or groups that have selected the project and the ranking given to it by the selectors; the higher the number, the more popular (SNR indicates 'selected not yet ranked'). The score only applies to staff proposed projects.

Proposer	Title popularity score	Created	Last Updated
McBrien, Peter (pjm) Academic 0	Computing Topics: Big Data 0	2013 Jan 15 - 10:48:53	
1 proposers	1 projects on offer		

There are 0 active students' selections

Admin Search

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Select Topics

Project Proposals Selection and Shortlist

User: [REDACTED] - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

Admin

Selected Proposals

- These are **your collection** of selected project proposals.
- You can deselect a project by clicking on the appropriate button.
- If a proposal has been withdrawn since your deselection, you cannot select it again.
- The **popularity score** is a function of the numbers of individuals or groups that have selected the project and the ranking given to it by the selectors; the higher the number, the more popular (SNR indicates 'selected not yet ranked'). It only applies to **staff proposed projects**.
- You can select as many projects as you like but you can only shortlist a maximum of 6 proposals, ordered from 1st choice to 6th choice.

Proposer or potential Supervisor	Title popularity score	Created	Last Updated	De-select	Seen	Shortlist Rank	Alter	Selection Updated
----------------------------------	------------------------	---------	--------------	-----------	------	----------------	-------	-------------------

Other Proposals on Offer

Proposer or potential Supervisor	Title popularity score	Created	Last Updated	Select
There are 0 active students' selections				
McBrien, Peter (pjm) Academic 0	Computing Topics: Big Data 0	2013 Jan 15		<input type="button" value="Select"/>
There are 0 active students' selections				

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Select Topics

CATE Project Selection for jib13 - Mozilla Firefox

https://cate.doc.ic.ac.uk/projects/shortlist.cgi?key=2013:None:jib13

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Firefox ▾ CATE Project Allocation Pr... 2012-2013 Submissions CATE Project Selection for jib13 CATE Project Selection for jib13

Project Proposals Selection and Shortlist

User: [REDACTED] - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

Admin

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- You can select as many projects as you like but you can only shortlist a maximum of 6 proposals, ordered from 1st choice to 6th choice.

Proposer or potential Supervisor	Title popularity score	Created	Last Updated	De-select	Seen	Shortlist Rank Alter	Selection Updated
STAFF PROPOSED PROJECTS							
McBrien, Peter (pjm) Academic 1 from 1 selections	Computing Topics: Big Data 1 from 1 selections [SNR:1]	2013 Jan 15		Deselect		1st 2nd 3rd 4th 5th 6th	2014 Jan 10 16:43:39

Other Proposals on Offer

Proposer or potential Supervisor	Title popularity score	Created	Last Updated	Select
There are 1 active students' selections				
There are 1 active students' selections				

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Select Topics

CATE Project Selection for jib13 - Mozilla Firefox
https://cate.doc.ic.ac.uk/projects/shortlist.cgi?key=2013:8:none:jib13

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Firefox ▾ CATE Project Allocation Pr... 2012-2013 Submissions CATE Project Selection for j... CATE Project Selection for j... 

Project Proposals Selection and Shortlist

User: [REDACTED] - COMPUTING 1
(c1 - CO)

Module: 163 - Computing Topics

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Selected Proposals

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- You can select as many projects as you like but you can only shortlist a maximum of 6 proposals, ordered from 1st choice to 6th choice.

Proposer or potential Supervisor	Title popularity score	Created	Last Updated	De-select	Seen	Shortlist Rank	Alter	Selection Updated
STAFF PROPOSED PROJECTS								
McBrien, Peter (pjm) Academic 4 from 1 selections	Computing Topics: Big Data 4 from 1 selections [4th:1]	2013 Jan 15				4th		2014 Jan 10 16:44:36

Other Proposals on Offer

Proposer or potential Supervisor	Title popularity score	Created	Last Updated	Select
There are 1 active students' selections				
There are 1 active students' selections				

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What is WebPA?

- "WebPA is an open source online peer assessment tool that enables every group member to recognise individual contributions to group work"
[webpaproject.lboro.ac.uk]

7th Feb Deadline WebPA First Team assessment

15th Mar Deadline WebPA Final Team assessment

Topics Fest Day

The Topics Fest day will be organised in four parallel sessions of presentations with one talk on each topic. You should attend the whole day.

09.30-12.30	4 talks + coffee break (4 parallel sessions)
12.30-14.00	Lunch break (lunch will be provided)
14.00-17.00	4 talks + tea break (4 parallel sessions)
17.30-18.00	Announcement of the prize winners (There will be one prize per topic)

Timetable for 2015

15th/16th Jan	Introductory talks
19th Jan	Deadline for group and topic requests
21st Jan	Groups and topics will be published
23rd Jan	Initial meeting with supervisors
6th Feb	Deadline WebPA First Team assessment
13th Feb	Optional progress meeting
6th Mar	Optional progress meeting
14th Mar	Deadline WebPA Final Team assessment
19th Mar	Hand in day for the web page
25th Mar	Hand in day for the presentation
26th Mar	Topics Fest (All day)

<https://www.doc.ic.ac.uk/~mvalerae/firstyear/pages/secure/topics/IntroSchedule.html>