Defining a Problem

A good HCI project starts with understanding the problem you are solving.

Features are not Requirements

- Its common to get a brief that looks like:

  Build an app for new UG1 and MSc students that lists course locations.

- There are a pile of "features" here:
  - Focuses on "app" as a solution
  - Assumes user group is only UG1 and MSc, but other users might be involved
- Step 1: shift feature requests to requirements

Requirements:

- Requirements are goals that the system needs to accomplish.

- Solutions fulfill the requirements, but they are not requirements by themselves.

- What tasks do users need/want to accomplish?
  - How are they currently doing those tasks?
  - What do they dislike about the tasks?
    Or: Why are they looking for a new solution?
  - What would they like to be doing?

Honours Project:
Live Project proposals for the session 2016/2017

Showing all projects. Search

View Options:
- ☑ **Project Title**
- ☑ **Number**

Hybrid HW/SW CPU Simulat
Processor Designer: An FPG
What is the capacity of printe
Artificial Phutball player
Machine learning of fonts
A proof assistant for the mod
An integrated C/Lisp Emacs
Automatic heraldic blazoning
Translating configuration lang
Mobile application for experin
Vision-based motion estimat
A Web-based configuration I
Configuring cloud services w
The use of QR codes and m
Firewall administration, the g
Bidirectional transformations

Game-based bidirectional transformations in Medini QVT — P018 — Perdita Stevens
Modelling Edinburgh Buses with CARMA — P019 — Jane Hillston
Graphical User Interface for Markovian Agent Models — P020 — Jane Hillston

Firewall administration, the game

Proposer: Kami Vaniea , kvaniea@inf.ed.ac.uk , 502870

Self-Proposed: No

Supervisor: Kami Vaniea , kvaniea@inf.ed.ac.uk , 502870

Other Suggested Supervisors:

Subject Areas: Human-Computer Interaction , Computer Security

Suitable for the following degrees: BEng in Artificial Intelligence & Software Engineering , BEng in Artificial Intelligence with Management , BEng in Computer Science , BEng in Computer Science & Electronics , BEng in Computer Science with Management , BEng in Electronics & Software Engineering , BEng in Software Engineering , BEng in Software Engineering with Management , BSc in Artificial Intelligence , BSc in Artificial Intelligence & Computer Science , BSc in Artificial Intelligence & Mathematics , BSc in Artificial Intelligence and Psychology , BSc in Artificial Intelligence with Psychology , BSc in Cognitive Science , BSc in Computer Science , BSc in Computer Science & Management Science , BSc in Computer Science & Mathematics , BSc in Computer Science & Physics , MA in Artificial Intelligence and Philosophy , MA in Cognitive Science , MA in Computer Science and Philosophy , MA in Linguistics & Artificial Intelligence , MEng in Electronics and Software Engineering , Master of Informatics

Principal goal of the project: Create a game that emulates the experience of being a security system administrator in charge of managing Firewall policy rules.

Description of the project: Managing the Firewall policy rules for a large network is quite challenging even for a skilled system administrator. New security vulnerabilities are identified on a nearly daily basis, attackers are constantly trying to get into your system, and network users keep asking you to let network traffic through to their computers.

Dramatic re-enactment of a conversation I had about our old UG4/MSc project matching system with the projects coordinator.

Try and list the features and requirements as I talk.

C: We want to create a new UG4/MSc project matching website that does automatic matching of students to projects. I'm asking you first though because you are an HCI Lecturer.

K: Why do you want to replace it?

C: Our student numbers are going up, so it is no longer sustainable to do project matching by hand. So we need to automate the matching.

K: So right now you take in emails from students and staff and do project matching using what?

C: A complex spreadsheet and text file system I setup. But it took me a long time this year and we will have more students next year.

K: What about the matching takes you the most time or is the most annoying?

C: Some projects are very popular, but only one student will get it. We tell students to select some projects which are not overly popular, but quite a few students select only popular projects, which makes it hard to give them projects that they want. Hm, should we have a "popular project" icon based on last year?

K: How do students determine what is a "popular" project?

C: They ask the supervisor when they meet with them.

K: *(thinking)* Meeting with a supervisor costs time...

K: Do supervisors/students complain about the amount of time required to meet?

C: Supervisors used to like meeting with students, but with the current student numbers meeting with each student is now a burden. Meetings are very important.

K: Why are meetings important?

C: The supervisor needs to assess if the student has the requirements for the project and make sure the student knows what the project involves. It is also a chance for students to ask questions.

K: How do you know that a supervisor and student have met? What happens if a student selects a project but does not tell the supervisor for that project?

C: That happens, I find out when the supervisor protests a match. I usually send out the match lists to the supervisors before the students to check for these types of problems. Then I have to re-do the matching which is annoying.

K: What do you like best about the current system?

C: It is simple. You get what you see.

K: What do you mean by "simple"?

C: It is just a list of projects and supervisors, so it is very easy to use. Students find a project title that interests them, read about the project and then email the supervisor if they are interested. Simple.

What are the requirements?

Usable for what?

What tasks do you want the system to support?
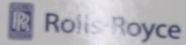
If you do not know, your system will never be usable.

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www.inf.ed.ac.uk

Welcome to the School of Informatics!

www.inf.ed.ac.uk

We are delighted that you have chosen to join us and become part of our thriving community. We want you to make the most of your time at university and enjoy the best possible student experience.

Starting at university can be a very exciting time, but it may also be different to anything you have experienced before. The Informatics Student Services Team offers a first point of contact to all our students - undergraduate, postgraduate taught and postgraduate research - for help and information for every step of your university journey.

The following pages provide an overview of the facilities and support available to you throughout your programme and give links to essential information that you will need.

Wishing you every success with your studies.

Johanna Moore, Head of School

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Taught students

http://web.inf.ed.ac.uk/infweb/student-services/ito
Contact the Informatics Teaching Organisation: ito@inf.ed.ac.uk

Throughout your study you will find information relevant to your studies on our web pages, from weekly lecture notes to instructions on submitting your final project report.

Student Handbooks for each year of study provide information on the courses, assessment, facilities, feedback and peer support availiable to all students within the School of Informatics.

Degree Programme Tables are a vital resource to check that your course choices comply with the requirements for your degree - it is essential that you read the associated guide for your year.

The complete **list of courses** taught by the School of Informatics provides details of the course content and assessment, and provides a link to the course web page where lecture and course work material will be published throughout the year.

All students should contact their Personal Tutor to discuss and **register their course choices**.

Appleton Tower facilities and access

The newly refurbished and extended computing laboratories at Appleton Tower are used for Informatics Labs and Tutorials plus private study outside scheduled class times. 24 hour swipe card access to the building is available to Informatics students.

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Research students

http://web.inf.ed.ac.uk/infweb/student-services/igs
Contact the Informatics Graduate School: igs@inf.ed.ac.uk

Throughout your study you will find information relevant to your Research Degree on our web pages, from arrival information and events to instructions on submitting your final thesis.

The above webpage links to information on regulations, rules and examination processes governing the postgraduate research programmes - it is essential that you read this and are aware of the milestones you need to achieve in each year of your programme.

Informatics Forum facilities and access

Details of the building facilities can be found in the above link. 24 hour swipe card access to the building is available to Informatics research students.

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Support

Informatics Student Services offer a first point of contact for all student enquiries and incorporates the Informatics Teaching Organisation and Informatics Graduate School.

Your **Personal Tutor** can provide academic advice and pastoral support.

Your **Course Lecturer** or **Course Tutor** can help with specific questions relating to a course.

Your **Supervisors** can help you achieve your Postgraduate Research Milestone requirements.

Based in the Informatics Forum, **Institute Administrators** provide dedicated Research Support.

InfBase is a drop-in service to support student learning. InfBase is staffed by Course Tutors, Teaching Assistants and Graduate Students and is open to all taught students.
https://wiki.inf.ed.ac.uk/INFBase/WebHome

Informatics Peer Assisted Learning Scheme (InfPALS) is a system of student-to-student support where students in their first year of an Informatics degree are supported in their academic and social transition into higher education by one another, in group meetings facilitated by students in higher years.
http://web.inf.ed.ac.uk/infweb/student-services/ito/students/year1/student-support/infpals

Informatics Computing Support maintain all the computers in the Informatics domain inf.ed.ac.uk, aiming to help you to get the best use out of the DICE computing environment, and to help you with computer-related problems and faults.
http://computing.help.inf.ed.ac.uk/

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Welcome to Informatics Student Services!

The **Informatics Teaching Organisation** is your first point of contact for all taught student enquiries.

The **Graduate School** is your first point of contact for postgraduate research student queries.

ito@inf.ed.ac.uk   www.inf.ed.ac.uk   igs@inf.ed.ac.uk

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Get Involved!

Student Representatives provide the vital link between students in their year and the staff who support their learning. Student Reps can feed back on the content and delivery of courses and thereby influence the overall student learning experience. **School Representatives** are tasked with representing hundreds of students in a particular school. They have the power to influence key members of staff in a department and voice their opinion on and enact EUSA policy in Student Council meetings.
http://www.eusa.ed.ac.uk/

There are many opportunities for enthusiastic **Student Ambassadors** to become involved in the recruitment of the next generation of Informatics students!

Open Days and Post Application Visit Days help to put applicants in touch with current students so they can get an accurate idea of the student experience and make an informed decision to accept our offer!

If you would like to be an Informatics Student Ambassador for Undergraduate or Postgraduate programmes, please contact Informatics Student Services.

The School of Informatics offers a wide range of paid part-time **Tutoring and Demonstrating** posts and related jobs to postgraduate students who are currently studying at the University of Edinburgh, or who have recently graduated from an Informatics programme.

By working with us you will actively help us in our commitment to provide faster feedback to students and ensure that our tutorial groups can be kept to a minimum size. You will contribute to an improved learning experience for our undergraduate students and raise the profile of the courses and programmes we offer.

You will benefit professionally from this exposure to our teaching environment, giving you a valuable insight into a career in academia as well as many useful transferable skills for a career elsewhere. Work on a particular course will also improve your knowledge of a subject area and may even open up new research opportunities and collaborations.
http://web.inf.ed.ac.uk/infweb/student-services/vacancies

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CompSoc (the University of Edinburgh Computing and Artificial Intelligence Society) is a student-run organisation at the University of Edinburgh, with strong ties to the School of Informatics. The society has a number of aims; to provide a social network for students with an interest in computers; to encourage both novice and advanced computer users to further educate themselves and others and; to build relationships between students and professionals in the IT industry.

Edinburgh University **Hoppers** support women in technology by organising events that concentrate on gathering women interested in technology, as well as providing the opportunity for them to develop their skills in this field.

Tech Meetup is a monthly excuse for developers and the tech community around Scotland to eat, socialise and learn new skills from each other – **Student Tech Meetup (STMU)** is the local Informatics student version held the first Wednesday of every month during semester time.

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Useful Information

Academic Advice and Support
In addition to academic support offered within the school, the university also offers a range of courses and study workshops to support you in your studies.
http://www.ed.ac.uk/staff-students/students/new-students

The Advice Place
Free impartial advice for students.
http://www.eusa.ed.ac.uk/adviceplace/

Careers Service
Support with all aspects of career planning is provided by the University's Careers Service.
http://www.ed.ac.uk/schools-departments/careers

Student Counselling Service
Offering counselling to help students work through their difficulty, understand themselves better and find ways of managing their situation.
http://www.ed.ac.uk/schools-departments/student-counselling

Disability Service
Offering guidance and support for disabled students.
http://www.ed.ac.uk/schools-departments/student-disability-service

English Language Teaching Centre
TEAM (Test of English at Matriculation) is used to assess whether you would benefit from language support, in the form of English courses and materials offered free to international students under the University's ELTT programme.
http://www.ed.ac.uk/schools-departments/english-language-teaching/students/current-students/elsis/team-test

University Health Centre
An independent National Health Service partnership of general practitioners who rent premises from the University and offer full GP services to patients who live within the area and choose to register with the practice.
http://www.health-service.ed.ac.uk/

University Libraries
In all of our libraries, which cover different subject areas, you will find study space and computing facilities.
http://www.ed.ac.uk/schools-departments/information-services/library-museum-gallery

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2017-2018
Employer & Careers Events @ EDINBURGH

MONTH		EVENT DETAIL	DATE /TIME	LOCATION
Sep	Careers Service	**Law Fair**	Wednesday 20th Sep 2017 12:30 - 16:00	McEwan Hall, Bristo Square, Edinburgh EH8 9AL
Oct	Careers Service	**Careers Fair**	Tuesday 10th & Wednesday 11th Oct 2017	McEwan Hall, Bristo Square, Edinburgh EH8 9AL
	Careers Service	**Careers Fair: Volunteering and Third Sector Jobs**	Thursday 12th Oct 2017 13:00 - 14:00	McEwan Hall, Bristo Square, Edinburgh EH8 9AL
	Careers Service	**Go Abroad Fair**	Wednesday 18th Oct 2017 12:30 - 16:30	McEwan Hall, Bristo Square, Edinburgh EH8 9AL
Nov	Careers Service	**Careers in Engineering**	Wednesday 1st Nov 2017 14:00 - 17:00	Sanderson Building, King's Buildings, EH9 3JF
2018	Careers Service	**Careers in IT**	Date and Time TBC	TBC
	Careers Service	**Creative and Cultural Careers Festival**	Date and Time TBC	TBC
	Careers Service	**Edinburgh Graduate Recruitment Fair**	Date and Time TBC	TBC

Please book your place by visiting the employer's website or through Careers Service
Visit **http://www.ed.ac.uk/careers/** for latest careers events information

COURSE/MODULE:

TUTOR / LECTURER:

OFFICE:

OFFICE HOURS:

EMAIL:

NOTES:

You have been tasked with creating a new book for incoming students.

What are the requirements?

Requirements Gathering

Many ways to gather design requirements

- Interviews with users
- Interviews with experts
- Contextual Inquiries
- Surveys
- Focus groups
- Reading background literature
- Diary studies
- AEIOU (UMD #2)
- Artifact analysis

Diary study

- Ask people to record events as they happen
- When to use diary studies:
  - **Rare events –** Some events are rare and cannot be easily observed
  - **Easily forgotten** – People forget that some events even happen
  - **Actual frequency important** – People forget how often they do things. For example, how many glasses of water have you had today?
- Why not to use diary studies:
  - **Study changes behavior** – asking people to track their behavior tends to cause them to change their behavior

I asked Margaret at the Informatics front desk to record questions people were asking her during Welcome Week

Informatics front desk FAQs

- Bank accounts – How do I open one? Where is the nearest branch? Where do I get a letter that will allow me to open a bank account?
- Campus Map – most common questions are directions for the Health Centre, Appleton Tower, David Hume Tower, 7 Bristo Square, International Office
- City map
- Buses – shuttle to KB also Lothian Buses, where do I get a bus season ticket?
- Railcards - who can endorse an application?
- Accommodation - Where are Accommodation services?
- Health – register with GP but also emergency stuff eg NHS 24 and A&E services
- Can I get deliveries to the Forum?
- Where is the Fettes police station?

- Where does my post go? (pigeonholes are obviously an alien concept…..)
- Where do I collect my student card?
- Why does my card not work for the Forum?
- Where can I buy a notebook/calculator/University sweatshirt?
- Where is the ITO?
- I have a timetable clash, what do I do about it?
- I've lost access to my timetable online…..
- How do I get a DICE account?
- English classes / English tests. I sometimes get asked where the tests take place and also for suggestions for English classes
- Are there labs/study space/library facilities in the Forum?

Retrospective survey

- Ask people about things that have happened to them in the past using a survey format

- When to use retrospective surveys:
  - **Critical** events that users are likely to remember well – Describe a negative software update experience.
  - **Recent** events that were somewhat memorable – Where did you have dinner last night?
  - **Rare** events that had a large impact and are memorable – How did your husband propose to you?

- Why not to use retrospective surveys:
  - Hard to remember events – How many times did you cross a road last month?

- Survey new students about things that have happened to them recently
- Survey current students about recent questions

Common confusions for new students

📋 **Not assigned to students**   Assign ▼

📑 **Grading Weight**

💬 **Common confusions for new students**

New students: What is a new-student related question/problem you have had since coming to Edinburgh?
Current students: What questions have new students been asking you recently?

📧 **Responses**

✈ Reply

Ordered by

Artifact analysis

- Look at the "things" people leave around in the world to understand a problem

- When to use artifact analysis:
  - **Physical spaces** – Workflows tend to generate physical artifacts which say a lot about how people work
  - **Tasks involve artifacts** – Goal task involves artifact creation. I.e. Microsoft Word
  - **Interactions generate artifacts** – For example, emails, social media posts, etc.

- Why not to use artifact analysis:
  - There are no meaningful artifacts
  - It is faster to learn the information another way – artifact analysis can take some time

Informatics - Class of 2018 - University of Edinburgh

Closed Group within Edinburgh

Shortcuts

MSU Hackathon [1]

IFIP Summer School... [2]

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Where might I find some good artifacts from confused, new students….

School Email Required

You need a Edinburgh email to join this community.

Join Community

A Place for All Your School Stuff

Join this community and have access to official Edinburgh groups, events and classmates.

Free & For Sale
0 friends are in this group· 1,479 members

21,019 MEMBERS

Perdita Stevens and **Neil Heatley** are in this community

GROUPS WITHIN EDINBURGH

English Literature
184 members

Dick Vet Class of 2018
132 members

FAQ-M 01	Bank accounts – How do I open one? Where is the nearest branch? Where do I get a letter that will allow me to open a bank account?	FAQ-FB 23	Do I have to choose one of the suggested university specialist areas for my other courses?
FAQ-M 02	Campus Map – most common questions are directions for the Health Centre, Appleton Tower, David Hume Tower, 7 Bristo Square, International Office	FAQ-FB 24	Is it possible for me to change my master's programme after the academic year begins?
FAQ-M 03	City map	FAQ-FB 25	Deadline for ielts?
FAQ-M 04	Buses – shuttle to KB also Lothian Buses, where do I get a bus season ticket?	FAQ-FB 26	In my first year can I take outside courses that aren't within Informatics if I'm doing a joint degree?

Last year sorted the posts into topics

- Admissions
- Social
- Studying
  - Lectures and Teaching , Campus, Courses and Programs
- Accommodation
- Transportation
- Finance
  - Bank account, loans, fees
- Visiting and international student issues