# Current practices as they relate to learning and teaching and technology in the School of Informatics

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## Introduction

There are three distinct 'stakeholder' groups in Higher Education: academic staff, support staff and students. What provides the best experience for one, often ends up with a sub-optimal experience for the other group(s).

It is my intention in this paper, to evaluate current practices in the School, as they relate to learning and teaching technologies, and suggest a way forward which would provide a better experience for all three stakeholder groups.

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## Scope of Audit

For this exercise, I compared the sortable list of Informatics courses here: http://course.inf.ed.ac.uk/ with those courses owned by the School of Informatics which have ever had a presence on Learn. There are 70 course instances on Learn for 2017/18 (SEM 1 + SEM2). This compares to 105 courses listed on the course index page. So, we know that 2/3 of all Informatics courses currently have a Learn presence. However, we need to dig a little deeper to get a better understanding of what this means.

## Virtual Learning Environments

Of the 70 course instances on Learn for this academic year, only eight are the primary site for course content (see Appendix A). They are as follows:

- Informatics 1: Cognitive Science (Level 8)
- Introduction to Vision and Robotics (Level 9)
- Introductory Applied Machine Learning (Level 10)
- Advanced Vision (Level 11)
- Software Architecture, Process and Management (Level 11)
- Performance Modelling (Level 11)
- Case Studies in Design Informatics 2 (Level 11)
- Image and Vision Computing (Level 11)

The other 62 course instances on Learn for this academic year are primarily used as a function for students to access recordings of lectures (using the Echo360 tools).

There are a few instances of course organisers making use of some other Learn tools (the Leganto Resource List and the Announcements tool) and several use some form of assessment tool in Learn (Turnitin or the Learn quiz tool). However, nearly all simply link out to information hosted elsewhere (most here: http://www.inf.ed.ac.uk/teaching/courses/, some here: https://blog.inf.ed.ac.uk, some here: https://ease.groups.inf.ed.ac.uk and a couple here: http://wp.inf.ed.ac.uk).

This obviously provides a disjointed experience for our students.

## Assessment practices

Of the eight courses using Learn as their primary course site, there were examples of the following assessment tools in use:

- Learn assignment tool
- Learn test tool (for quizzes)
- Turnitin assignment tool

I am also aware that for Assignment 2 on Informatics 1: Cognitive Science we will be trialling the Notable Service. Noteable provides a way to use Jupyter notebooks without having to install tools on your own computer or DICE.

Of the remaining courses using alternative sites for their course content, there were examples of the following assessment practices:

- Submit command on DICE
- Peer review contribution to group work (on System Design Project). Students can suggest an adjustment of 10 or 20% (both positive and negative) for their group peers. This is considered by the markers when agreeing assignment marks.

## Exam practices

Exam practices appear fairly consistent across the School and include the following:

- closed book hand written exam
- open book programming exam in computer labs
- Questionmark Perception (via ProctorU) for ODL students

## Technologies used

There is a mixture of centrally provisioned tools, technologies and services, third party platforms and locally written programs used by the School.

Centrally provisioned tools, technologies and services in use include the following:

- Learn VLE
- Turnitin Originality checker
- Turnitin GradeMark
- Learn test tool
- Learn assignment tool
- Questionmark Perception
- Media Hopper Replay (lecture recording service)
- Media Hopper Create (video management service)
- Notable (Jupyter Notebooks in the Cloud service)
- Leganto (Resource Lists)
- Collaborate (online meetings / classes)

Third party platforms used by the School include the following:

- YouTube
- Piazza (discussion forum + extras)

Locally written programs include the following:

- Submit command (for assignments)
- Adaptive Comparative Judgement (ACJ) style assignment on Introduction to Java Programming (PTAS project)
- Aggregator for students (marks, feedback, student feedback, auto-feedback and tests run on code submitted)
- Aggregator for staff (Theon, Media Hopper Replay, Piazza, lab allocations)

## Support available

Information Services (IS) employ a number of learning technologists to support centrally provisioned services (such as Learn, Moodle, Turnitin, Media Hopper Replay etc). However, in recent years, many Schools have decided to create a local learning technologist service to better support School colleagues with learning technology related issues.

This service can take the form of acting as a kind of 'go-between' between IS and the School, relaying relevant information to each party and helping to support decisions on which tools and services to adopt. The post can also support locally written and adopted tools and services.

Overall, it is hoped that the local learning technologist service, by being based in the School, and having the time and space to build closer and more meaningful working relationships with colleagues *on the ground*, can help build better solutions for students, academic and support staff.

I have drafted a service catalogue for the Informatics Learning Technology Support Service which can be found in Appendix B.

Communications

The learning technology service in Informatics will provide support via the following channels:

- The Informatics Learning Technology Support website at https://blog.inf.ed.ac.uk/learningtechnology/ (awaiting launch – content may need to be migrated to an alternative host)
- A dedicated queue at … (awaiting confirmation from IT colleagues)
- IS helpine: is.helpline@ed.ac.uk
- Sign up to Slack channel at https://join.slack.com/t/inflearningtech/signup (you'll need a @ed.ac.uk email address)
- Twitter: @InfLearningTech https://twitter.com/InfLearningTech

## Next steps

1. **Contribute to the University wide consultation on VLE standards, and develop an Informatics template**

   When considering course sites we must ask ourselves: who is the 'owner'? Is it the course organiser? The course secretary? The tutor(s) teaching on the course? Is there a hierarchy of ownership? Or do different actors have ownership over different areas? It must be clear to all actors which areas they are responsible for. This should feed into the university wide consultation on developing a standard Learn template.

2. **Build better integration with third party tools**

   Continue to talk to, and work with local teaching and support staff, and colleagues in IS to develop better integration with third party tools, and locally written programs where these offer better value. These integrations may be LTI plugins, building blocks, or REST APIs.

3. **Migrate content from the various course sites currently used to the one, centrally supported VLE – Learn**

   There is currently little to no drive from course organisers themselves to use Learn as the primary platform to deliver course content. As such, if we want to persuade them, we need to clearly outline the benefits of doing so and ensure there is no disincentive to do so. *The act of migrating the content therefore cannot result in more work for the course organiser.* Options include:

   - It would be simple enough (if inefficient) for me to copy and paste content from the current course page into a Learn course site. However, not only would this be inefficient, it raises the question of *when* to perform the action. Content for a course can grow and change over the course of semester. If we wait until semester end, we may not have enough time to copy the content over.
   - For users who keep content on their local drive, Blackboard Drive can offer some efficiencies here. However, it is worth noting that Drive is not Linux compliant.
   - Alternative options, such as data scraping and wrangling, may also be explored.

## Appendices

A) Database of current Informatics courses with a Learn presence – including tool usage (only those with a .ed.ac.uk address can access)
B) Informatics Learning Technology Service Catalogue (draft)