Online delivery
Learning technology resource

March 12, 2015
Note to UEA Online working group

Supporting the development of online courses and MOOCs

We have to date delivered 21 iterations of 9 different MOOCs and are in the process of building 7 online modules for UHO and 1 for Crime Fiction. Further online modules are in the course approval pipeline. If our paid courses prove successful with students, we would expect to expand our portfolio further and growth could be rapid.

The Learning Technology team offers support and training for blended modules and also works alongside academics in the creation of these purely online modules and courses. The resource is finite but structured to allow scalability. This paper offers an estimation of expected Learning Technology resource required to support online delivery at various levels of growth.

UEA Learning Technology Resource consists:

Learning Technologists (ARC grade 7). Experienced / qualified teachers with an understanding of traditional and online course delivery theories and a skill in devising opportunities for online learning. UEA learning technologists work closely with academics to find ways to use technology to enhance learning and assessment.

Digital Learning Designers (ARC grade 5). Creative experts in the use of learning technologies to present content (AV, text and image) online for maximum impact and accessibility. Digital learning designers can rapidly produce student-centred content.

Media Production Technicians (ARC grade 5). Specialists in the use of video and audio recording and editing equipment.

Apprentices / interns. Learning technology and digital design are new industries and build skills that are useful across many current and emergent careers. As Learning Technologists are, generally, experienced teachers including apprentices working towards a Digital Learning Design Certificate, or interns, in the team could be mutually beneficial.

Online Delivery Services: Learning Technology Studio
Instructional design and project management

Working alongside academic colleagues to design a rounded overall online module that contain learning activities appropriate to the content, the academics and the anticipated market. Academics are supported to create an outline for the module that incorporates a blend of static and interactive activities, an appropriate balance between media and text content and offers students opportunities to build on both independent study skills and collaborative group work. Course design also includes setting up a learning site and branding it appropriately for UEA, faculty, school and module.

Content creation

Content creation is supported by Digital Learning Designers working under the direction of Learning Technologists to the plan initially set during module design.
Different types of content will require differing amounts of technical support or put another way, varying budgets will restrict or permit different style of online delivery. Generally speaking the more media-rich the design, the more expensive in terms of Learning Technology resource.

Testing and QA

All content will require testing in terms of technical effectiveness and quality assurance. This is a Learning Technology grade task.

Live support

Online delivery will require learning technology support at time of delivery. Again this will be impacted by the course design – modules with more interactive and peer to peer opportunities in their design will be more expensive in terms of live support at run time.

Worked example (hours)

This example uses a part time module of 300 guided learning hours (30 credits). At the time of course design it is established that the pedagogical model will be interactive to allow for maximum peer to peer learning and social construction.

50%, 150 of the guided learning hours will be reserved for independent study (independent reading, assignment writing etc). The remaining 150 hours will be split between AV content consumption (15 hours), text content consumption (90 hours) and peer to peer interactions (45 hours).

On the above assumptions and using heuristic on the following page, this course has a requirement of 90 hours of Learning Technologist support, 114 hours of digital learning designer support and 75 hours of media production support. This calculation is based on the above example, but these hours are sensitive to module design. The proportion given to independent study is a particularly influential variable as is the amount of fresh AV content.

Staffing implications and hours heuristic.

The above example suggests that online delivery can be supported provided:
1 additional Learning Technologist for every additional 18 online modules
1 additional Digital Learning Designer for every additional 14 online modules
1 additional Media Production Technician for every 22 online modules.

The above calculations are based on the following heuristic:

Standard text and image content can be expected to require one hour of DLD support per guided learning hour of delivery.

Freshly recorded audio visual and media content may require five or more hours of media technician support per guided learning hour delivered to allow for post-production editing as well as the preparation of transcripts. Other media content for example animated interactive workbooks may take much more time.

Interaction opportunities: Setting up electronic submission points and peer to peer interaction opportunities will require less initial DLD resource (one hour per five guided learning hours) but may require more support to be available at the time of delivery, for example to moderate discussion boards.

Independent directed study students directed towards repurposed and pre-existing media and text will require the lowest amount of DLD help: one hour per 10 guided learning hours delivered.

Testing and QA. This will require one hour of Learning Technologist per 10 hours of delivered content.

Instructional Design Each module will require 10 hours of Learning Technologist resource for initial course design and ongoing design management support per 100 hours of delivered content.

Live Support. One hour of Learning Technologist support per 10 hours of delivered content per 30 students.

Worked example on above assumptions and heuristic.

Proposed delivery / learning hours

Weeks of delivery	30	£ 4,565.22
Hours per week	10	
Total hours	300	

Course Design (hours required)   30
Initital set up

Content Creation (hours required)   174

	delivery proportion	delivery hours	del/cre weight	creation hours
Text rich content	30%	90	1	90
Media rich content	5%	15	5	75
Interaction-rich content	15%	45	0.2	9
Independent study	50%	150	0.1	15

Testing, QA and live support   LT Hours   60

	hours per delivered hours	
Quality assurance and testing (0.1h/ph)	0.1	30
Live support (0.1h/ph)	0.1	30

Estimated Costs

Estimated Costs	Support required (hrs)	Post hours (pa)	Modules supported (pa per post)	hour rate	cost
					£ 4,565.22
Learning Technologist	90	1,650	18	£ 20.29	£ 1,826.09
Instructional design, course design, branding, live support, project management					
Digital Learning Designer	114	1,650	14	£ 14.49	£ 1,652.17
Typesetting, page layouts, story boarding, media editing, transcriptions					
Media Production Technicians	75	1,650	22	£ 14.49	£ 1,086.96
Filming, editing					
Apprentices / interns	-			£ 6.96	£ -
As DLD but requiring more LT support					