

Name	Department affiliation	Title of Proposal	Topic of Proposal
Jason Rentfrow	Psychology	There's an App for that: Using smartphones to promote wellbeing among students	To develop and test a smartphone app to measure students' psychological states and activities; the app will also collect objective behavioural information through mobile sensing and students will receive feedback about patterns, and access tools for managing stress. Aim to investigate the patterns of thriving students versus struggling, developing strategies for supporting student wellbeing and transition to University, to explore relationship between wellbeing and sensor data, to investigate student attitudes to feedback and how to make sensing data meaningful. Success measured through comparison of depression rates for participants vs non-participants, and survey feedback from users.
Peter de Bolla	English	Electronic Shakespeare	To develop a 'proof of concept' for online interface for interactive digital reading environment. Using two Shakespearean sonnets, a database will be developed to enable users to select particular contexts of understanding that change the organisation and graphic arrangement of the poem. Additional data on specific words (linguistic history, resonance, cognate words or uses, research on the word/issue at hand) will be available to further enrich the reading of the text. Aim to prove feasibility of concept and user interface; if successful further grants sought from elsewhere to expand database. Success measured through control group vs access group, taking short test to evaluate understanding of structure and strategy behind poetic design. Wider applicabilty across Tripos specifically for Shakespeare, but also to any poetic concept with additional development. Scope for commercial development.

John Williams and Rupert Brown	Linguistics	Online essay writing tool kit for Linguistics students	<p>Creation of a subject-specific resource to support learning essay-writing skills, specifically for 1st year students but also highly relevant for Mphils. Aims to impact on student awareness of key issues, focus and reflection on own writing processes, and embedding teaching of writing skills within the Department and supervisions. Success measured through quantitative hit data on the resource, staff and student feedback in surveys and focus groups, information on student progression provided by supervisors, and analysis of writing style compared with pre-resource styles. Scope for providing a template which could be easily adapted throughout the wider University for any subject.</p>
Philip Stanley-Marbell	Engineering	GRAPPLES: Graphical programming with physical laws for engineering systems	<p>To create an interactive web-based tool for students to explore how physical laws and invariants dictated by properties of engineered systems affect software in systems interacting with the physical world. Students will be able to program sensor platforms and receive visual feedback on cause/effect relationships; these will help students to learn about behaviour of systems and sensor data in the physical world. Success measured by provision of a working tool and examples, reviews of tutorial for educators re: how to use the system, and user feedback. Plan to make tools publicly available as open-source software and encourage other HEI development of the tool.</p>

Alex Copley	Earth Sciences	App development for using satellite data during fieldwork teaching	<p>To create a smartphone app to display satellite images, topographic data, and related research data (e.g., chemical analysis, modelling) during fieldwork. Existing technology is not sufficient due to requirements for pre-processing of related research data, specialist nature of satellite images, and off-line requirements for remote areas; it will also allow embedding of lecturers' own geological data to strengthen lab/field relationship. Success measured through effect on teaching (staff/student feedback) and number of downloads; enhancement of teaching/scientific worth and ease of use (engagement of students). Wider applicability to any course with satellite fieldwork (possibly Zool/Arch/Anth)</p>
Martin Worthington	Archaeology	Teaching a 3D script	<p>To commission 3D resin replicas of cuneiform tablets available in the British Museum, for student use across all levels of Akkadian/Sumerian teaching (UG-PhD), as well as to move an example obelisk from FAMES to Archaeology, and to create digital scans of the tablets. The replicas and scans will be used differently in different years, and serve to enhance student engagement both with the actual difficulties in translating 3D script instead of working with 2D interpretations on the page, and with the variance in actual versus scanned objects. Scans can also be used for self-study when away from Cambridge. Replicas could result in changes in assessment format, enabling 'practical' translation examinations instead of wholly written. Strong support from students and External Examiner. Plan to extend use of the replicas and scans to other HEIs, creating a 'pool' of resources which would enrich collaboration and testing of other teaching enhancements. Also use in other Depts for history of writing/text. Success measured both quantitatively and qualitatively, through survey, focus groups, statistics on usage and student engagement.</p>

Brian Ferguson	Pathology	Learning immunology in the digital world	To create a series of digital learning aids to be integrated into Part IB Pathology practical classes; this will enhance the student experience and learning outcomes through clearer theory/practice links. Digital aids will be student-led, creating: graphic animations to demonstrate key concepts and provide virtual experience of some techniques that would be prohibitively expensive for hands-on sessions; editing and reformatting video presentations of live imaging microscopy; and integrating schematic diagrams into class sheets. Success measured by student feedback, quantitative and qualitative. Could create a template for integration of digital aids for other subjects.
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