

Running Harvard's Experimental Neuroscience MOOC: Lessons in Project Management, Public Engagement and Media Production

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Harvard's "MCB80x: Fundamentals of Neuroscience" MOOC was designed from the ground up to address the challenges associated with engagement in online and blended settings. While featured as part of the Harvard/MIT edX initiative, of which Karolinska Institutet takes part, MCB80x is built atop a fully custom web platform that enables the seamless incorporation of rich, guided, interactive simulations and lessons within the web browser. In addition, MCB80x has pioneered the use of low-cost do-it-yourself lab kits, which allow students to perform DIY neuroscience experiments at home and share their results with their online peers. The MCB80x platform and course were also created with research and assessment in mind, and early randomized controlled studies using the MCB80x platform have already demonstrated significant improvements student self-efficacy for science literacy as a result of participation in DIY experiments.

The first part of the course drew in excess of 21,000 registered students, from 193 countries, who collectively viewed 1.8 million pages, and have spent in excess of 61,000 hours on the site since it's launch in October of 2013. Annually we release new modules of the course, with a third expected course launch in September of 2015. We eschew the traditional lecture format, instead filming a large portion of our lessons on location in labs, museums, and other places of interest, in the style of short documentaries. Additionally, we attempt to bring the course to a much larger audience by embracing the arts within the course: MFA arts graduates in illustration and animation have bolstered the course's audience and reach in the past two years.

As producer and project manager of MCB80x I have led a small core team, using a film production framework, in producing content for the course. We have refined our production methods to reduce cost and faculty involvement, streamlining the revision process and creating ever-more succinct content for audiences that demand shorter and more engaging content.

We rely heavily on a core team of content experts to create multiple sources of learning (interactive 'led' lessons, aesthetically engaging media, and virtual labs) and we have reduced hands-on engagement during course runs, which we have found engenders a more organic online community of DIY science MOOC students.

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