

Creative Makerspaces: flexible learning spaces to suit your needs

Makerspaces are continuing to grow in popularity, not just with discerning hobbyists and hackers but also within the education sector; blog posts and articles can already be found describing makerspaces in schools, colleges, universities [and beyond](#). Although there are undoubtedly challenges in providing these spaces, the case-studies that have been reported provide practical examples of the ways in which institutions are addressing issues of funding, resources and space to create their own academic makerspaces. This feature will highlight some of these approaches.

Firstly, it is up to you to define your makerspace: 3d printers and Raspberry Pi's are not obligatory. Diane Rendina has compiled [a list of makerspace descriptions](#), explaining that "a makerspace is a place where students can gather to create, invent, tinker, explore and discover using a variety of tools and materials" (2015, para. 4). This can span from simple arts and craft through to more complex electronics and coding; you can manage user's expectations accordingly. There is a huge range of activities that can take place in these creative spaces which is one of the reasons that they seem ideally suited to the academic environment.

Some institutions have already started; [The Shed](#) makerspace at the University of Kent is used primarily for "informal learning and teaching within the School of Computing" (2015, para. 7) providing these students with a supportive space to learn and create. Although useful to this particular group of students (along with the University's [Maker Society](#) who also use the space), libraries may be better placed to offer these extra-curricular opportunities more widely to the whole academic community.

[Ros Bell spoke at this year's LILAC Conference](#) about the brilliant [DigiLab](#) at the University of Manchester: "a new concept being developed by the Library, where space and support is provided for you to try out new technology" (2016, para.1). So far this has included augmented reality showcases and discussions on the ethics of wearable technology. Some of the technology that has been demonstrated at the DigiLab (Google Glass, 3D printing pens and virtual keyboards) may seem beyond the reach of the humble makerspace but this is not necessarily the case. [The University of Surrey Makerspace](#) is a great example of what can be achieved without institutional funding; "generous donations have allowed the Electronics and Amateur Society (EARS) to kit out the first University makerspace in the UK, a community-operated work area that allows students to collaborate on personal projects" (2015, para.3).

However if you are struggling to find generous benefactors there are other options open to you. The approach that we took at the University of Sussex was to provide a temporary [pop-up library makerspace](#) that ran for an afternoon during our popular Mobile Technologies Week. We were fortunate to be able to work with colleagues in the Technology Enhanced Learning team and Brighton based [MakerClub](#) who delivered a workshop that allowed participants to build and control a robot arm using a mixture of professional kit and craft. As this demonstrates, neither the space nor the resources have to be permanent additions to the Library; investigate [local maker networks](#) to see whether there are any [providers or possible collaborators nearby](#). You can try a temporary 'taster-space' and see first-hand what these innovative spaces can do for your library and your users.

Alternatively, if there is simply no space available, you could take your makerspace on the road. Carlos Izsak, who will be speaking on Wednesday afternoon at the [2016 CILIP conference](#), is the founder of [Makercart](#); a service that goes one step further and enables makerspaces to become mobile. As these examples show, there are practical solutions to many of the challenges in setting up a makerspace. There are plenty of examples of makerspaces that may work for you, and plenty of ways to hear about them. One of these will be to attend this year's [ILI conference](#) where Heather Moorefield-Lang will be sharing stories of makerspaces from around the world and I will be talking about our experiences of creating a pop-up makerspace at the University of Sussex Library.

So come and take inspiration from not only the creative learning that is happening within these makerspaces but from the creative approaches to setting them up.