Socio-centric Sustainability - Bournemouth University

A number of studies indicate that the embedding of sustainability in the design and engineering curriculum is far from complete (Ramirez, 2006, 2007; Humphries-Smith, 2007), particularly when working with a holistic interpretation of sustainability. Taking the three pillars or dimensions of sustainability (RAEng, 2005) it is generally considered that the eco and techno centric dimensions are considered, at least in part, in many design and engineering curricula in the UK and around the globe. However, the socio-centric dimension is rarely considered. Yet research indicates (Brezet, 1997, Chapman, 2004, McDonough & Braungart, 2002) that it is only by taking a holistic approach to sustainable design, which will entail consideration of the sustainable aspects from the very outset of generating a solution to a design/engineering problem, that we will be able to produce products that are truly sustainable. Manzini & Jegou (2003) conclude that there needs to be a focus on living strategies rather than employing more technology in the traditional functions of living. They take the approach of investigating the user social behaviour and then considering the technical system role, leading to solutions which are less, product focused, and more system focused.

It is the socio-centric dimension that is the focus of the mini-project at the Sustainable Design Research Centre at Bournemouth University (BU) with the aim of producing an on-line resource for undergraduate engineering and design students specifically addressing the socio-centric aspects of sustainable design. There are in existence a number of on-line resources, many listed by the Engineering Subject Centre's own web resource, however, these too mainly focus on the eco and techno centric dimensions. It is the intention that the resource produced as an outcome of this project will complement those resources already available, in particular the "InformationInspiration" and the "Design Behaviours" web resources developed at Loughborough University.

Of course, the immediate challenge is that the engineering and design curricula is already 'packed' full with material, with undergraduates frequently having higher hours of contact than in many other disciplines so how can anything else be fitted in? Yet on-going research at Bournemouth is suggesting that what is most critical for getting students to engage with sustainability from the outset is exposing them to the breadth of issues sustainability involves and then giving them space to discuss these. At Bournemouth the use of virtual discussion forums based around exploring on-line resources has proved very useful in engaging them with sustainable issues from the beginning of a project (Humphries-Smith, 2008). Using the BU VLE, myBU, a structured and tutor managed discussion forum based around the "InformationInspiration" website has been used with 2nd year Product Design students. The purpose was to engage them in debate about a wider range of sustainable design issues than they have previously been exposed to. This has provided an opportunity for them to form their own initial thoughts by having to discuss and defend their ideas on the material presented on the website with their peers. This has proved to provide a deeper learning experience than more traditional methods.

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