Libraries – one part of a Toyota?

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When I buy a car, I have a few thoughts in the back of my mind. I think of particular manufacturers’ reputations and my bias towards them. I have a clear picture of what the product is. Toyota’s approach is so successful that the basic ethos is adopted in business systems across the globe and across different sectors and is often referred to as a ‘Lean’ systems approach. Toyota sell cars to their customers. What do universities and other educational establishments sell to students? Courses? Qualifications? A campus lifestyle? A library? A student makes a choice not just about a course but a whole learning experience. Libraries and academic departments make improvements to their discrete components of that learning experience. If we view the whole learning experience as a product, our approach to improvements for the customer, the student, may be significantly changed for the better. Nina Smith’s blog provides an interesting reflection whether learning is a product or process.

More significant improvements from the students' perspective would come if we improved the whole product experience as though it really were one product, one complete learning experience. Toyota aims to produce products that work with zero defects. The Lean system approach they use has three tenets at its core, essentially:

- to provide the customer with the highest quality product (ideally with zero defects)
- to engage all staff positively and actively to encourage their contribution to the business
- to maintain a flexible agile response to market forces

Imagine working towards developing a learning experience with zero defects? The Lean system used across many commercial, industrial and service industries is an approach that embraces a range of tools and philosophies to improve the operations of a particular organisation. A focus when examining any operation using a Lean approach is to look at processes that create waste (or ‘muda’ to use the Japanese terminology). There are different forms of muda, for example, the waste of moving items around a building, wasted stocks of excessive books, wasted efforts in over designing simple displays, etc. Many of these approaches and Lean tools are detailed in The Lean Toolbox by John Bicheno and Matthias Holweg.

Most of the applications of Lean systems relate to the business processes within educational organisations. William Balzer, in Lean Higher Education, discusses saving waste in the different business processes but does not give any detailed insight to the learning product. So in terms of the actual customers, the students, what scope is there for Lean to help with improvement?

At the Kitchener Library in Ontario they identified that their staff sitting behind the counter was a waste of resource and space. In their new design, they removed the counter and created a Help Zone, where staff worked alongside students. In this way they were more proactive in supporting students’ needs, more easily approachable by any nervous student.
If we focused on the whole learning experience product, we might more readily examine how we can integrate student assessment schedules with information from a library’s electronic services to students’ own smart devices. We might push out relevant services to students on any particular course and provide tailored signposting and support services when they entered the library spaces closely related to their timely needs. Using programmatic digital signage, (referred to as digital out of home or DOOH marketing) notices can be displayed that are tailored to a particular student who goes towards the sign providing them with all the relevant information they need to access their resources quickly and easily from the assignments they have just been set. A step further might be to provide added support information based upon the emotive state of the student looking at the signage. A sad student, or a worried student, might be prompted with relevant support signposting. A happy student, with links to more references. Affectiva is a company that provides emotive detection solutions and the demonstrations are readily available from their site or your mobile phone app store.

A Lean systems approach means actively engaging all participants in the process and it is a vehicle for building strong integrated links between curriculum and library processes and support services to the end benefit of the student. The staff within a Lean system should be wholly engaged with each other, always considering and acting to bring about small continual improvements.

To understand the value of any improvements, we need to understand the students’ view of the product. A key point of Lean solutions is ‘genchi-genbutsu’, a focus on real observation and understanding of the whole customer experience in action. Not just feedback from their learning inside a lecture theatre or workshop, or their views on what it is like in the library, but a real understanding of how they experience it. Digital technologies such as life blogging cameras can give a visual record of a ‘day in the life’ or ‘week in the life’ for a student perspective. Do this for multiple students on multiple courses and the view can be very informative. Add to this the value of 360 VR video cameras to observe and record an entire area for playback and review. Quick response feedback systems at key points such as the Happy Or Not smiley face feedback system, or more bespoke systems made from Google Forms and QR codes or touch screen tablets, can provide useful feedback at points of interaction (eg reprographics, entrance, helpdesk) in the day for a particular student group.

Summary

We often view improvements within learning spaces in close conjunction with other departments and with little view of what the actual whole studying experience is like for the student. If we really had a clear understanding of how their learning experience product looked to them, it would be possible to make improvements to the separate components of that product, such as the library, that really enhanced their individual experiences. This would make systems more efficient (reducing muda!) and enhance the student’s whole experience.

A Lean systems approach focused on a product model and used in conjunction with appropriate digital technologies can enhance the whole learning experience for students. And, if you consider the student using a product, then how would you begin to design it so it had zero defects and maximum satisfaction for the student? If the student was driving a Toyota, could you start to offer them a Bentley?