

# Intersecting Programme Design Thinking in Business Disciplines in a New Technological University

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## **Abstract**

This reflective paper discusses how design thinking principles and stages can support a people-focused collaboration between two new Schools in a new Faculty of Business in a new technological university (TU) in Ireland; TUs are a new entity for the higher education sector in the country. The layers of ‘newness’ and uncertainty in the context of this work enabled design principles to be a useful complementary tool for our planning. There are currently five TUs in Ireland with TU Dublin being the first established in January 2019. Technological Universities have been founded to address the social and economic needs of their region and to engage in industry-focused research. A focus is on science and technology programmes that are vocationally and professionally oriented, and a key aspect of the TU remit is an expectation to play a pivotal role in facilitating access and progression for students particularly through relationships with the further education and training sector. The collaboration is between two Heads of School in this context who are using design thinking to help shape their future business programme portfolio for the next 3-5 years. In such a novel situation that we found ourselves in 2022-23, dealing with change at multiple levels required new ways of thinking. This work was part of a University-wide School and Programmatic Review process where people-focused curriculum and learning design involved the academic staff and students who constitute new disciplinary-based programme design teams. We believe that design thinking can provide us with a set of shared principles, processes, practices and attitudes that encourage our disciplinary teams to “think like designers” through a complex process of restructuring our programme portfolio in this new technological university context.

**Keywords:** Business Education, Culture, Design Thinking, Disciplines, Engagement, Transformation

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## **1. Introduction**

Design thinking has a human-centered core and encourages organizations to focus on the people they are creating for, which in our university context can lead to better programmes, services, and processes to enhance student learning. As Moffett (2022) suggests, embracing design thinking may offer ways to combat academic perfectionism and develop vital skills for navigating uncertain paths. There have been many organisational contexts in which design thinking has been used in the past, and increasingly in higher education also. Indeed Bickerdike (2021) reports on its use with students in finding solutions to the Sustainable Development Goals.

As part of an upcoming planned School and Programmatic Review process in a new Faculty of Business in a new technological university in Ireland, two Heads of School are reflecting on the process of identifying overlapping of programmes in the portfolio of undergraduate, postgraduate and executive education, as well as considering the cultural challenges that exist in harnessing the potential it presents for curriculum and learning design across Business Education.

## **2. Context: Purpose of Programmatic Review in Business Education**

The context for this reflection is a Faculty of Business in Ireland's first Technological University, which came into existence in January 2019, merging three existing higher education institutions. The Faculty of Business is one of Ireland's largest Business Schools in terms of full-time and part-time student enrolment and has been in existence for over thirty years. The Faculty offers undergraduate degree programmes to approximately 5,000 students across a range of Business disciplines, as well as postgraduate and a suite of executive education programmes to a further 1000.

As can be imagined for this Business Faculty with its extensive history, moving into a new Technological University context has meant that there is significant change happening to the existing institutional structure and fabric, and such system-wide restructuring can have a profound impact for students and staff. Against this backdrop of institutional change, the Faculty of Business is continuing to hone its professionally oriented national and international programme provision for students and reflect on how it designs programmes to meet society and industry's needs for the future. The work of Johnson and Jordan (2019) is informative in this regard as they have proposed frameworks to help guide such business schools on how best to structure their UG business provision based on experiential learning; they argue that business schools take on the additional role of providing professional education that leads to knowledge and skills required in the workplace.

The two Schools at the centre of this reflection on design thinking are 'Global Business' and 'Management, People and Organisations' (MPO). Both Schools offer Undergraduate, Postgraduate and Executive Education programmes in their portfolio. The Business portfolios are developed around the following Discipline areas within the Schools:

School of Management, People & Organisations:

- Organisation Studies
- Strategy & Leadership
- Management
- Human Resource Management

School of Global Business:

- Global Business
- Business & Society
- Sports Management & Coaching

As part of the work emanating from a major university organisation design process, both Schools are now undertaking programmatic reviews. An initial review of the portfolio shows overlap across some of the UG programmes and opportunities for collaboration and growth across the Schools allowing for a multi-disciplinary approach. The context for these reviews is also influenced by the impact of online education in higher education. There are many studies pointing to online learning being one of the ways of programme provision of the future, but only if we can provide educators with the tools they need to boost student engagement and embrace the capabilities of their VLE platforms. It is widely recognized across the Faculty of Business that in this period of post-pandemic education, students' engagement in their programmes has been challenged. This is a prevalent issue in other institutions in the sector and also internationally, and is not a localized phenomenon - anecdotally staff in other institutions have been reporting having experienced student disengagement also.

### **3. Reflection as a supporting process for Design Thinking**

The two Heads of the Schools met on a number of occasions over the past two years since the institutional merger took place to consider and reflect on our existing overlapping programmes, the potential for new offerings, and to plan appropriate transformative pedagogical changes. We used Schön's (1983) 'reflection in and on' model, to transform our vision of both School's programme portfolios. As an initial step, the reflection model was used to identify limitations in the current programme portfolios by analysing (i) our undergraduate programmes across campuses (part-time and full-time) (ii) staff and students' voices through planned thematic group discussion, and (iii) feedback of a series of industry panels for identifying what is needed in the competitive marketplace. An initial analysis to date reveals that the learning and teaching strategies, business software resources, and programme-level assessment strategies can provide further opportunities for students' engagement and development of key business inquiry skills.

The model comprising 'reflection in action' and 'reflection on action', that is, reflection during and after an event, respectively, produces a reflection cycle instead of a unidirectional and one-off reflection. This suits our needs for School and Programmatic review as it allows critical evaluation of the efficiency of the programme and pedagogical changes and identification of need for further changes.

Thus making 'change' a constant feature to enhance our offerings and drive students' engagement in learning. Another important benefit of the model is contextualisation, which is in line with Dewey's original (1910) reflection perspectives. It emphasises reflection that starts in one's workplace or in one's own context, where professionals are confronted with challenging situations. The fact that the model also provides opportunities to include industry expert views in the reflection process by involving the panel at different stages of the transformative process, provided vital outsider views to validate, clarify and monitor changes to our business programme portfolio.

### **4. Facing into Challenges and Opportunities**

There are a number of challenges and opportunities that have arisen in the preparation for the Programmatic Reviews that will feature strongly in our work, including the challenge of student engagement and the opportunity this provides us to challenge the system, the challenge of overlapping legacy programmes and the opportunity this provides us to collaborate and develop more multi-disciplinary approaches, and the challenge staff experiencing change fatigue and the opportunity this provides us to involve staff in the strategic and cultural developments of the Faculty and our Schools.

#### ***4.1. Student Engagement***

As reported widely since the pandemic, almost all programmes have faced problems with lack of student attendance and engagement. Cavanagh (2019) argues that engagement is a critical first step for student learning. Over the last two years, the world has changed, with each and every one of us adapting to new ways of teaching, learning and working. Despite life slowly returning to normal, the adoption of online learning is showing no signs of slowing, and with increased access to technology and data, the benefits of these digital experiences are becoming ever more acknowledged and our learnings from this time need to be actioned. We are now at the stage of looking to develop how we teach digitally whilst retaining all that is valuable for in-person delivery and consequently provide the most accessible blended learning experience for all our students.

Post pandemic, in our context, a major shift seems to have occurred in the part-time/full-time perception of modes of programme delivery - from a faculty perspective, there is a need to explore the explicit reasons for this and raise awareness of its implications for staff in designing new programmes across the business disciplines. In order to ascertain different levels of student engagement, staff are encouraged to consider how are their students engaging with the content in each programme, how are they engaging with each other to support learning, and how are they interacting with teaching staff - and if this is engaging for them in the classroom and online. We speak of students being our partners and the challenge of student engagement gives us the opportunity to ensure it is a real partnership. For each year on each programme, student representatives also participate as members of the programme boards ensuring their voice is heard. This collaborative reflective paper is timely as the Faculty is in the process of developing a set of principles to inform its LTAF strategy. One of the principles is focused on student engagement, with active

learning embedded, and which span in-person and online teaching: “*We are committed to providing an engaged, active and connected learning experience irrespective of the mode of delivery.*”

So that we are informed by relevant evidence, this work can enable staff to monitor and review student engagement activity in order to ensure continuation of good practice, enhancement of engagement activity, and action in line with these principles.

### ***4.2. Overlapping Legacy Programmes***

Business programmes at UG honours degree (level 8) require the development of skills and knowledge to enable graduates to understand a business environment from an administration, management and strategic perspective. In TU Dublin, the business programmes prepare students to work in business in a very specific role, such as marketing or human resource management or to specialize through a graduate programme. The merger which involved three individual higher education institutions has brought programmes together that have similar learning outcomes and therefore involve overlap of learning outcomes and modules. In some instances, they also have been targeting the same student groups.

Ripoll-Soler and De-Minguel-Molina completed a comparative study of the post-merger phase of higher education mergers in Europe. In this study they found that a major challenge in the post-merger phase is to improve the range of academic courses on offer (Ylijoki cited in Ripoll-Soler and De-Miguel-Molina, 2019). Many mergers in higher education are instigated to create efficiencies and increase academic quality (Frølich and Stensaker, 2021). It could be argued that such efficiencies could be achieved by building on the complimentary programmes across the School of MPO and the School of Global Business. The challenge here will be to enable academic discussion which will ensure the academic portfolio is meeting the needs of the different stakeholders of students, industry and society, meeting the regional needs of the campuses while also creating a culture of collaboration and trust among the academic communities in the Schools.

Framing this challenge (and opportunity) in the context of the lived experience of the stakeholders of the different programmes, should enable trust and in turn collaboration. This can be achieved by using specific design thinking tools and frameworks for the programmatic review planning and meetings.

### ***4.3. Staff Experiencing Change Fatigue***

Traditionally, change-related fatigue has been viewed as usually the result of top-down, management-driven change efforts. While it is very fair to acknowledge that staff and workplaces across the globe have experienced extraordinary levels of change through the pandemic, in our Business Schools, this has been combined with large-scale organizational change. The change is now getting real for academic staff as we start to review programmes in the context of the new University. The programmatic reviews will be underpinned by the new University Education Model. The

fundamentals of this model focus on actions which are categorized around academic modules, learning pathways and learner experiences. The actions include streamlining the module portfolio and having a common pan-university portfolio of modules (University Education Model, TU Dublin, 2022).

Engagement from staff will be key to the success of the programmatic reviews to ensure that we are future proofing the portfolio and engagement with industry will support in developing our future foresight competence (Sajwani *et al.*, 2021). Kotter's Change Model designed for business underpins much change in organisations and has been researched in Academia for the impact primarily in administrative change (Kang *et al.*, 2021). A study of a successful university transformation in École Polytechnique Fédérale de Lausanne proposes that the success of the change needed was possible due to 'approaches that included vision creation, coalition formation, communication, faculty empowerment, and culture consolidation' (Jiang, 2022, p.792).

Since the new TU has been formed, staff have been engaged in creating the vision and purpose of the new Faculty of Business and Schools with a culture canvas underpinning our values, behaviour, priorities and supported by emotional and rational cultures (Razzetti, 2020). To support staff to want to engage and increase their motivation in the programmatic reviews it is important to include them in the design of people-focused, collaborative shared processes for the reviews (Kouzes and Posner, 2012). Staffs need to be heard, dissonance needs to be voiced and communication needs to allow for dialogic participation (Lewis *et al.*, 2006). We as leaders need to be able to show our own vulnerability also (Brown, 2018). The design thinking frameworks and tools support the approaches we are using to encourage staff in this changing environment and will further enable the culture and shared purpose that has been designed by all staff.

### **5. Design Thinking Solutions**

Design thinking can be a mindset, a process and a toolkit for approaching problem-solving (Brenner *et al.*, 2016; Dam and Siang, 2020). Stefaniak (2020, p.201) defines design thinking as "a process that embodies empathetic design of solutions and iterations of ideation and innovation while engaging in problem-solving". The key difference between design thinking and other design models is the emphasis on human-centred design and in particular empathizing with students or stakeholders and seeing them as a person rather than an input (Stefaniak, 2020). Empathic design practices are at the core of design thinking and ensure that the design process remains focused on the student and staff experience.

We are exploring design thinking to initiate and boost transformative ways to design curricula and learning experiences (Grabill, Gretter and Skogsberg, 2022; Morgan and Jaspersen, 2022). It is promising for our context as it is a structured process that guides teams to work collaboratively on a problem or challenge, resulting in a high degree of creativity and, ultimately practical solutions.

## **6. Potential of Design Thinking supporting us through Change**

Table 1 shows our plans for adapting Kimbell and Sloane’s (2020) shared principles and processes and Lockwood’s (2010) work on how we are bringing design thinking into our practice of School and Programmatic Review in an area of uncertainty i.e. a new technological university context. In our activities, we are placing an emphasis on empathy, inclusion, co-creation, playful experimentation and creativity, through stages of observation, collaboration, and fast learning.

**Table 1: Adapting Design Thinking Principles and Stages for a Business School Review Context**

<b>Shared Principles and Stages of design thinking</b>	<b>Empathy</b>	<b>Inclusion</b>	<b>Co-creation</b>	<b>Playful experimentation and creativity</b>
<i>Collaboration</i>	Mindfulness Seminars for students and staff	EDI workshops as part of staff development	Student focus groups and Faculty and School level Industry Advisory Panel	‘Lunch & Learn’ staff and student experimentation e.g. ChatGPT exploration for assessment practices
<i>Observation</i>	Community-building in the first year of the new School	Seeing EDI in action on the programmes	Staff sharing and observing exemplars of good practice across the Schools	Sustainability workshops and extended inductions for students where ‘lego serious play’ feature
<i>Fast learning</i>	Structures with academic and admin staff - range of CoPS set up	Applying learning from STLR Project - transformation of student learning	Thematic Working Groups including LTAF, Industry Engagement, Research and Scholarship	Student and Staff Hackathons on ‘hot topics’ such as sustainability and AI
<i>Visualization of ideas</i>	Faculty and School Canvas was a useful tool for working with staff to explore our values, behaviour, priorities	Culture	Visualising how the 7 fundamentals of the University Education Model can be applied to Programme Portfolio	Use of student ambassadors to support LTAF initiatives in the Faculty

Our approach involves engaging with a Faculty and School level Industry Advisory Panel. This is a collaborative approach, with each School nominating 1-2 industry contacts from their disciplinary networks to join. This is a widely-practiced step in many Business Schools in order to advise on the relevance of the curriculum to industry needs, to discuss any critical issues and challenges related to the discipline or education of the discipline, to facilitate industry work placements and internships to enable students to be exposed to industry practices and to gain practical experience, to

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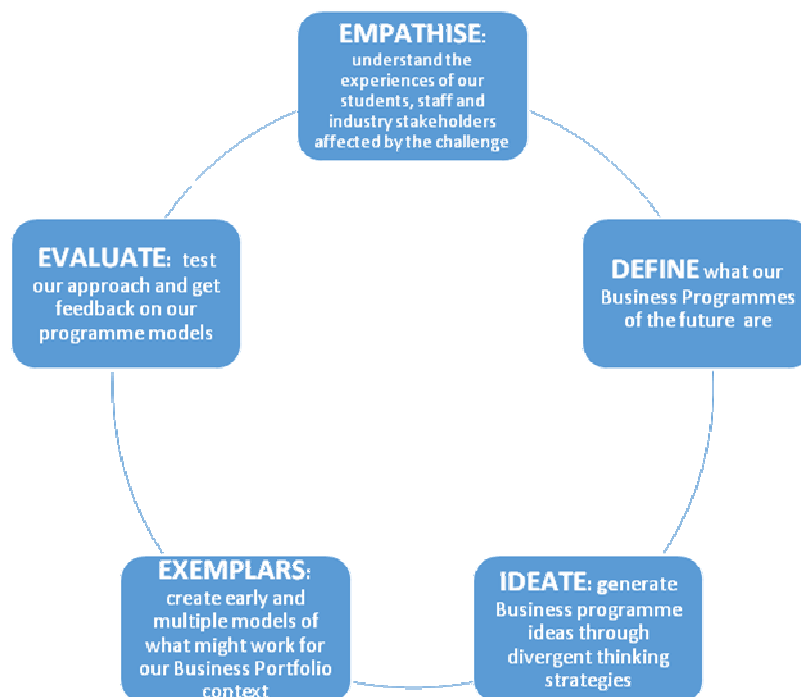
establish links that facilitate and enhance the employability of the graduates, to link the Schools to national and international industry and professional bodies, and to establish links that may facilitate research collaboration. Industry focus groups / interviews will also take place, as engaging with industry in such ways through programme design ensures that our programmes are also being developed to include the future forecasted competencies and skills required in industry, thus future proofing our programmes. This also enables industry to get a first-hand insight to the quality enhancement processes of the University, enabling industry to understand the importance of the accreditation of the programmes and the integrity of the qualification.

Student focus groups will be an important facet to identify what makes students want to engage in their learning on their Business programmes; through our quality assurance programme committee reports, we hear directly from students that what will make a difference for their engagement is content and delivery that results in them having these experiences:

*Applied (Theory to Practice) | It tells a 'story' | Provides a 'take away' | Relevant | Creative | Small Student: Staff Ratio | Close to Industry | Experiential*

Figure 1 shows the adapted design thinking approach that we found helpful for supporting us as Heads of School through the planning process for our upcoming School and Programmatic Reviews – with an initial empathy stage being very important to underpin the process; subsequent stages involved defining our programme portfolios, ideating on the potential for new programme offerings, sharing exemplars of good practice in programme design, and evaluating the approach along with seeking feedback from students, industry and alumni on the programme designs.

**Figure 1: Adapted Business Education Design Thinking Approach**





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The adaptation is based on the original model of the five-stage design thinking model proposed by the Hasso Plattner Institute of Design at Stanford (the d.school, 2010).

As Moffett (2022) recommends, we are also finding it useful to embrace the idea of design thinking as a mindset because by engaging with this approach we are accepting that we would meet a certain amount of discomfort, because taking new, untrodden routes often involves experiences of failure and error. It is anticipated that achieving empathy with our staff can ensure they successfully engage and achieve the objectives of the programmatic reviews.

There already are a number of lessons learnt through this reflective exploration by the collaborating Heads of School that are subsequently leading to the actions as set out in the section below. As part of the preparation for the School and Programmatic reviews, we reflected on the need for full engagement from our staff and students in the process and decided to form four thematic working groups of academic staff and student representatives to undertake key design thinking work.

1. The first thematic group is established to baseline current 'Learning, Teaching, Assessment & Feedback' (LTAF) practices and identify opportunities to enhance the learner experience. It will explore a number of key areas e.g. Common Modules; Student Engagement; Learning and Teaching Strategies; Curriculum Design (UDL); Authentic Assessment; Timely Feedback; Implementing our University Education Model (UEM) principles; Embedding Sustainability into Learning Outcomes; Professional body requirements (where relevant); Future skills for professions/discipline; AI, online, hybrid & blended learning; using Business Digital tools. It will also garner feedback from our current Students and Alumni through a survey about the future direction of the School's programmes.
2. A second thematic group will analyse our 'Partnerships with Industry'. In our business disciplines, it is imperative to seek feedback from employers and industry partners on the Schools' programmes. This group will explore a number of key areas e.g. Work Placement (seeking input from a variety of sources on optimizing work-integrated-learning); Internationalisation; Professional Profiling (capturing the salient issues at the interface of professional bodies, associations and networks and employability); and Careers (engage with career guidance teachers on review and enhancement of School programmes).
3. A 'Research and Scholarship' thematic group will articulate each School's embedded research activities and their impacts on its programmes.
4. A final thematic group on 'Enhancing Student & Staff Success through a Community of Practice' will develop a mechanism to ensure that all students have a high quality learning experience and suitable supports across all years of study. Staff support is also key here and will involve contextualizing Equality, Diversity, Inclusivity (EDI) within each School and its programmes.

## **7. Future Design Actions**

To ensure that the programmatic review process continues to be underpinned by design thinking principles, we need to ensure that all staffs understand what is design thinking

and that there is a shared vision on how this could enable the review. Therefore the following actions will be proposed at Faculty level:

- The adapted business education design thinking approach is proposed to the Faculty for adoption.
- A workshop for staff on design thinking and how this could be used in the planning of and the programmatic review project itself; the project plan will allow for design thinking principles.
- For enhanced student engagement, the work of the 'LTAF' thematic working group will allow for:
  - Provision of a workshop as a leadership team on what we want to see in reorientation for all our returning students.
  - A series of staff events on student engagement/re-engagement, starting with orientation/induction and with follow-ups taking place later in the semester – these are identified for delivery just-in-time - when these are needed throughout the semester as staff gauge when student attendance/engagement drops off in their blended classes, and a short staff training/stimulus event is scheduled around that.
  - Dichotomy of Approach - carrot vs stick: Supporting staff in designing engaging, flexible programme delivery vs consideration of monitoring attendance and provision of marks for participation.
- In developing a true partnership with students, the Schools of MPO and Global Business will provide a forum for class representatives to meet together with the Heads of School, Heads of Discipline and Programme Co-ordinators to enable an open discussion on engagement and possible ways to support Students and Staff.
- ***For Overlapping Legacy Programmes:*** A forum is put in place for staff to identify what programmes are overlapping and what opportunities arise from this.
- ***For Offsetting Staff Change Fatigue:*** The 'Enhancing Student & Staff Success through a Community of Practice' thematic working group will recommend a staff experience committee to enable the development of an open and trusting culture that can challenge the status quo, while also meeting the needs of staff, where possible.

As the thematic working groups delve deeper into the programmatic review process, enabled by the design thinking approach outlined in this reflective paper, it is anticipated that our resulting streamlined programme portfolios are based on stakeholder feedback from students, staff, external examiners, community, industry and the professions, and such feedback has been used to revise the contents and relevance of programmes, including redesign of curricula and delivery strategies.

It will be key that the programmes maintain appropriate high academic standards, meet the market demand and remain sustainable into the changing future ahead.

As part of the wider School Reviews, the design thinking approach will help us ensure through structured collation of evidence and critical reflections that the Schools can plan for their academic programme delivery and strategic development in a manner compatible with each School's and Faculty of Business priorities, and towards impactful contribution to the overall TU Dublin mission and strategic plan. We will benefit from objective critique from the expert industry review panels (external to each

School), and which will afford us the opportunity for benchmarking with similar Schools nationally and internationally.

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