SCHOOL OF DESIGN
THE GLASGOW SCHOOL OF ART

Service Design within a Product Design teaching programme: generating benefits to education as well as service organisations.

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Summary

Developing service design within the product design programme at Glasgow School of Art, involved exploring areas of commonality between product and service design and the parallel skills that can be applied to both. During this process, we had the opportunity to consider how we teach design in a service context and to begin the process of developing a common framework for a service design language within the department.

To help develop this knowledge and expertise and to complement design and social science skills within the department, service design professionals were brought in to share their professional practice and knowledge through workshops with the students. Projects were run with the year 3 product design students in collaboration with an external client to provide a real-world context, user-groups and stakeholders for the project.

There were also some interesting spin-off benefits to the projects. As well as the students, and staff, benefitting from input professional service designers, we also noted the value of delivering design tools and prototypes to the client organisation. These tools and prototypes were used to disseminate the service propositions internally, but had the added benefit of raising awareness to service design thinking and processes within the organisation. Over the last two summer breaks, two students per year have been employed on internships to develop ideas generated during the projects. Also, some of the project outputs were used to help develop briefs for service design consultancies.

The benefits for the students and staff within the product design department and the client organisation, as well as spin-off work for graduates and consultancies have been numerous. Some of these benefits could have been predicted, but many were not, and it is with reflection that these benefits were identified.

Introduction

Service design and product design may not, at first glance, appear to be compatible disciplines, however, we have found them to be not only compatible but also symbiotic. One discipline can benefit from and enhance the other. More and more products cannot exist without a service supporting them and services are often facilitated by the use of, and interaction with, products. Moreover, the skills required for a user-centred approach to product design are not too far removed from those required to design services. Product design is after all more than the design of artefacts and products; it includes the experience of using them. It does not, therefore, take very long to recognise that the interaction with products and the service that the product supports also plays a major part in the user experience. If the relationships between product, interaction and service are mismatched then a poor user experience will result.

More than ten years ago the product design department at Glasgow School of Art recognised that the field of product design was evolving. No longer was it sufficient to produce students that were simply proficient at designing aesthetically engaging and functional products. As a result, social science topics were introduced to further develop students' investigative and research skills as well as their understanding of the social and user context within which their designs might exist. Interaction and product design complement each other easily and the newly acquired social science skills enhanced the appropriate integration of interaction and product design.

More recently, the shape of manufacturing has been changing in the UK and with it the role of the product designer. It was becoming necessary to be aware of social and political influences on the design process and also how the design process can, in turn, affect the social and political strategies of industry. Many of our product design graduates found themselves developing strategies for designing products, or designing services rather than designing actual products. It was necessary for us to respond to this new market for our graduates and equip them with the appropriate range of skills and knowledge.

Developing service design within product design education

Product design students are familiar with the vocabulary and terms used in design, but it was recognised early on, when discussing service projects with clients, that they had to adapt the language used as well as their visualisation and communication skills. The skills, in themselves, were not necessarily new to the design students, but the way that they were employed was. There are parallels between the process employed in designing services and in product design, however the way a service design project is researched, visualised and presented tends be a bit different. Also, the project outcome can be a non-physical one rather than a physical product.

Recognising parallel skills

Traditionally product design students are expected to observe people using products and produce designs that respond appropriately to who the user is, how they will use the product, where it will be used and for what purpose. The design should consider the aesthetics, materials and structure of the product and we should understand how to interact with it through the semantics of the interface. The skills employed by a product designer are generally observational research; analysis of the problem in the context of the research; visualisation of the problem through ideation sketching and generation of concepts; testing ideas by making models; refining and resolving the design based on

manufacturing and user requirements. These skills with a few adjustments can be applied to service design, as equally as to product design - it is the methodology of applying the skills that change. Our design programme aims to show students that there are no *real* differences and allows them to develop their own *flavour* of approach to a design problem.

Service designers have to be equipped to communicate clearly a complicated system of relationships and interactions between the various users and stakeholders. Students are taught the social science skills required to engage in appropriate user research, investigate relationships, generate insights and make sense of complex data. They develop interview techniques and visualisation tools to communicate complex information in simple and easily digestible formats in order to engage user groups and service providers in productive dialogues.

There is nothing like being exposed to real situations to learn quickly, so for the past two academic years we have worked with Skills Development Scotland on service design projects that look at various elements of their service provision to the public.

The value of group working

Service design projects are often complex and deal with a number of different user groups, service providers and stakeholders. It therefore makes sense to work in groups to help share the workload. This is perhaps the first major difference for product design students where they might have, in the past, worked individually on their design. The ability to work in teams and to share, negotiate, resolve and communicate ideas within the group is an important skill that the students are required to develop. The downside is that academic assessment of each individual's contribution becomes more difficult with group work, however it is a more realistic situation to an actual working environment.

Research methods

It was recognised that research methods and skills used in the field of social sciences could be input by teaching staff and social science specialists to enhance the research skills of the students. These methods would help them engage more usefully with user groups and enable them to extract the key data and insights that might inform their later design proposals. The design of tools and methods of engagement with user groups is important at this stage and typical examples used in practice were discussed. Previous commonly used tools, such as questionnaires are not always appropriate; they are difficult to write well; are time-consuming and fine for quantitative data but generally not good at capturing rich qualitative information. The tools used should be tailored to the people you are talking to and to the type of information required. Also, it is not always appropriate to use 'generic' tools generated from previous projects.

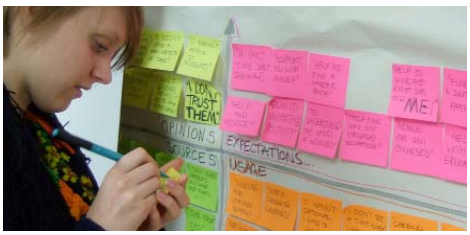
Figure 1 – User engagement tools



Interpreting the data

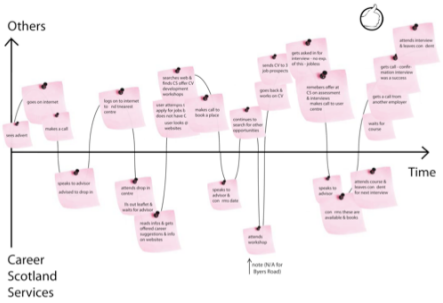
Having gathered copious amounts of data from users, service providers and other stakeholders, sense has to be made of the information. Developing the ability to map user comments and research in a way that is quick and easy to visualise helps decisions to be made quickly, for insights to be generated and opinions to be formed.

Figure 2 - Working with the data visually



The students learn to map various users' experiences of a service as journeys through time and to highlight the points of interaction and areas where there are problems, etc. The maps identify the points in space and time where service and users interact (touchpoints),

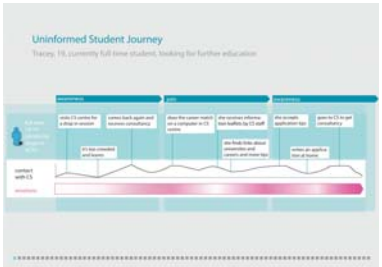
Figure 3 – Mapping the user journeys



Designing for multiple interactions and relationships

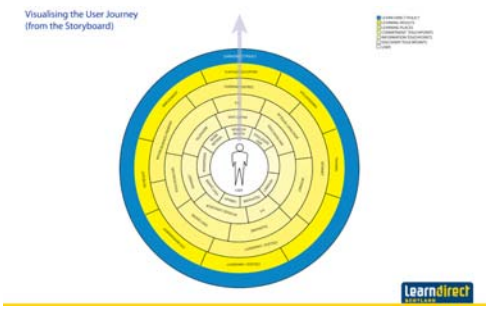
Services might deliver a *simple* outcome – a telephone conversation, a train journey, etc. – but the relationships and interactions between the various stakeholders are typically quite complex. Product designers are familiar with generating user profiles from market information, interviews and observations. They recognise opportunities for a design solution and communicate those concepts through storyboards and product visualisations. On service design projects, the same skills are applied but the nature of what is being visualised is less *material* and illustrates more the interactions, experiences and relationships involved in the service. The techniques of communication therefore become more schematic or diagrammatic - illustrating systems of interactions and relationships rather than renderings of form.

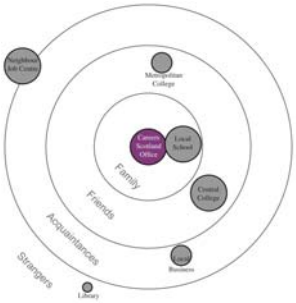
Figure 4 – Mapping interactions & relationships



One area that we found differs markedly between product and service design is the use of user personas. A persona is likely to be used in product design to represent the profiles of a typical user group, however in service design we also have to deal with multiple and interacting personas. We also have to consider alternative methods of access to a service for different personas, or alternative journeys through a service. This indicated a need to provide the students with methods to design tools that offered ways of investigating and communicating these different pathways, interactions and relationships. The students used these tools to explore concept ideas and to refine their understanding of elements of the service.

Figure 5 – Illustrating user pathways and stakeholder relationships





Developing service design proposals

Making sense of the research gathered is one thing, but it has to be used to generate proposals for a new service provision. Turning the analysis from what we know about the current situation, to what should be done to improve it. The design tools developed in the early stages prove invaluable at this stage to help create 'what ifs' – what if this or that relationship was changed; what if we rephrased the problems and opportunities as user desires and expectations, etc. Following analysis of the research, the students would focus on key areas from which to create service propositions.

The analysis was presented by the students to the client in the form of a critique of the current, or proposed, service with insights into problems that exist and opportunities for improvement (design interventions). To test the proposals, elements of the service propositions are prototyped and tried out on user groups to assess and refine the design.

Figure 6 – User group assessment and feedback of service prototypes

Communicating the outcome

Being presented with a voluminous text-based report does not encourage ease of comprehension and dissemination of the contents within the client's organisation. By presenting the service proposals visually, the client can imagine how elements of the proposal might be used, or modified if necessary, to suit their needs. The important thing is that the client feels empowered to act on the ideas presented rather than being dictated

to. To this end, the students present their service proposals as visual examples of what could be. User-provider scenarios are created; videos of a typical user journey are produced; web pages and graphics are mocked up; diagrams of user and stakeholder relationships are generated. The physical tools created are also provided to the client to explore their application and use with colleagues. All this serves to provide examples of what the service provision might look like and how it might be implemented.

Student benefits

From our experience of developing a service design element to the product design programme we have seen the value that visually trained and user-centred designers can bring to the discipline of service design. In the process, these students have been trained in the use of user research techniques and social science methods to produce meaningful service proposals. The students' understanding of the user-service relationships in a social context combined with their ability to visualise potential solutions makes for a valuable combination of skills that can be applied just as effectively to product and interaction design and enhances their 3D design skills.

External benefits

The projects undertaken have had a life beyond the art school with Skills Development Scotland employing students on internships over the summer period to develop service concepts generated during the projects. Skills Development Scotland has also developed ideas from the projects internally as well as using project outcomes to develop briefs for service design consultancies.

The projects have created a growing awareness within clients of the value of designers to a service-providing organisation. This has had the added benefit of creating a market for our graduates as employees and consultants. Around the projects the product design department has been able to create a network of people that can input skills and knowledge and provide experience opportunities for our students.

Acknowledgements

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