

# **THE DESIGN DECISION TRAIL: A STUDENT DESIGN PROJECT NARRATIVE, TUTORIAL TOOL AND ROUTE TO EMPLOYABILITY**

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## **ABSTRACT**

This paper describes the invention, development and subsequent inclusion of a design decision trail in undergraduate and postgraduate design courses at the University of Northampton. The design decision trail focuses on personal growth, academic development, reflective approaches to study and potential employability. The design decision trail is created by the student as a visual narrative of their design project, which captures the signposting and timing of critical design decisions. This can be utilised in tutorials as a tool through which students and tutors can reflect on the student's performance and provides an opportunity to undertake formative assessment in an innovative and individualised style. A successful design decision trail can reflect the knowledge, understanding and progression of the student as their decision trail unfolds. It can also highlight their problem solving techniques by pinpointing where they altered or added to the design. The immediacy of a visual design decision trail allows for the sharing of information with staff, peers and potential employers.

*Keywords: Design decision trail, creativity auditing, project narrative, reflective learning tool, employability*

## **1 INTRODUCTION**

The invention of the design decision trail emerged from previous research undertaken to determine employer needs and expectations when recruiting designers. Attenburrow [1] identified qualities and competences required by employers of product designers. Textual data was taken from four years of job advertisements in the appointments pages of the Design Week journal. The data was analysed by word count, under the following headings: personal, creative, technical and computing. Words under the personal heading outnumbered the rest. Employers seemed to want personal and professional qualities from their employees. This led to the question 'How can graduating design students show personal and professional quality within their work?'

Kotch, T [2] describes the use of decision trails as an auditing tool to establish rigour in qualitative research. Could this approach apply to design studies? In order to test this, the design decision trail was incorporated into the author's MA studies to reflect on the qualitative nature of both the written and practical work submitted. This proved to be a useful and innovative way of studying and learning. This led to the consideration of how the design decision trail could help design students show the qualitative nature of their professional personalities through their project work.

This paper will define the design decision trail and how it works as a creativity-auditing tool and describes the design decision trail in context of the student, tutor and employer. From the student perspective, they can visually describe the narrative of their design project in their own creative style. The tutor can use it as a tutorial tool to promote discussion and offer an opportunity use critical reflection with the student. From the employer perspective, there is clear, visual evidence of the student's skills, critical thinking and creativity as displayed within the design decision trail which could be accessed pre-interview and pitched at interview.

## 2 WHAT IS A DESIGN DECISION TRAIL?

A design decision trail is a visual narrative diary of a design project. It should illuminate the student's design thinking and methodology ongoing through their design project. The suggested format is that of a hard backed A4 sketchbook. It could also be disseminated through other methods of presentation such as an e-portfolio.

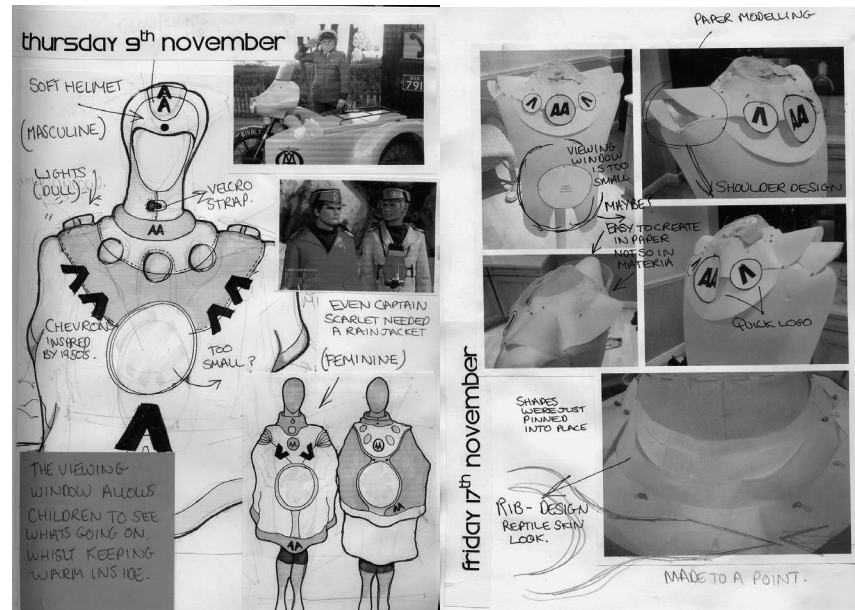


Figure 1. Examples of pages from a design decision trail by product design student 2007

### 2.1 A Creativity Auditing Tool

Attenburrow [3] describes the traditional design portfolio as tending to show finished design proposals. The design decision trail can include information from design research sources such as research data, brief, design journal articles, design development sheets, sketchbooks, sketch models, prototypes, CAD and technical reports. Information from these sources aid design decision-making. It can include quantitative and qualitative evidence shown graphically and as such this visual representation can be an engaging communication tool and passport to design employment. The audience may include: tutors, potential employers, peers, manufacturers, research groups, marketing teams and technical advisors. The complexity of design projects can cover many subject-specific fields and the tutor and student can monitor scope of learning across subjects through navigation of the design decision trail. Furthermore, the integration of photos of models and scanned drawings helps to encapsulate and audit the creative process rather than the finished product.

## 3 STUDENT PERSPECTIVE

If students are encouraged to record design projects, the value of the whole story may not be lost which can happen if students are not consistent in their approach. Compiling a project design decision trail can help refine this information. In other words, they can show their methodology. It can enable students to reflect on and display their best practice from whichever source they choose to use. Within and alongside the graphic representations, technical and aesthetic considerations can be included.

The onus is on the student to update their design decision trail. It is imperative that they communicate the design process, what emerged from it, particularly highlighting points when critical decisions were made. Importantly, this is the what, when and why of the journey. The more comprehensive the trail, the less time is lost as tutors do not have to re-acquaint themselves with the project. High quality feedback can be achieved as the student and tutor engage to understand the complexity, depth and breadth of the design project. It can foster the student tutor learning partnership and form the basis of formative presentations

and can also be shared with peers. Networking with potential employers, manufacturers and project contacts can be initiated and developed. Students are encouraged to send out one page ‘tasters’ of their projects to create interest and possibly advice from prospective employers.

### **3.1 Tutorial Tool**

The design decision trail can assist the student to engage with tutors from different disciplines by bringing them up to date on current developments or pinpointing areas of difficulty. This pro active approach enables tutors to have an overview of the process that the student has visually mapped and may encourage new territories of investigation through discussion.

The dynamic nature of the design decision trail enables a student to build up a story using graphical language. As the story unfolds the student has to articulate their ideas and decisions within tutorials. This format promotes confidence in themselves and also promotes the ability to effectively communicate to different stakeholders which is a desirable skill to attain. As a professional designer, they are employed to be creative on behalf of others.

### **3.2 Employability**

At the end of their course Design students often exhibit their finished proposals .An alternative approach could be to use their individual design decision trail as an exhibition handbook to describe the narrative and context of their project which would enable them to engage with and pitch themselves -through their ideas - to prospective employers. Newly qualified students may have little professional design experience thus the design decision trail can provide evidence of how they may perform in work in an innovative way. Design project visibility and differentiation can advantage the student in a competitive jobs market. The design decision trail can be used as a pitching device at formal and informal networking events.

### **3.3 The Design Decision Trail as a Reflective Learning Tool**

Students can use their design decision trail as a shared and self-reflective document of their design thinking and learning. Brockbank, McGill and Beech [3] define reflective learning as involving:

...dialogue with others for improvement or transformation whilst recognizing the emotional, social and political context of the learner.

The design decision trail can support this and function as a personal SWOT analysis to monitor their strengths, weaknesses, opportunities and threats. A comprehensive design decision trail can illuminate all aspects of a design project. At the University of Northampton, within design courses, the design decision trail is introduced in year 2 but is used primarily on minor and major projects in year 3. Students are encouraged to personalise their decision trail and design work, thus promoting engagement, ownership and the notion of self-identity.

The design decision trail has been adopted by other design disciplines within the school. This is experimental at present however the fluidity of the design decision trail lends itself to being used as a reflective learning tool. The essence of it is to enable the student to stand back and look at their work in a reflective manner about the process they have undertaken. This should capture the signposting and timing of critical design decisions, which can be discussed in a safe, containing mentoring environment.

### **3.4 Student Self-marketing**

Many graduating students now have their own web sites. What innovative approaches have students used on their websites to secure work? Research into existing student web sites may identify innovative approaches to job hunting. Do student websites have traditional formats and approaches that may be disadvantageous? Can a design decision trail approach aid the students present themselves on-line through, for example, an e-portfolio? Could this increase and improve student visibility in the job market.

### **3.5 Postgraduate Study and the Design Decision Trail**

Postgraduate design teaching at the University of Northampton uses the design decision trail as part of the curriculum. Knowledge Transfer Partnerships have used design decision trails to help staff representatives understand the associate’s progress, suggest input into their project and develop their relationship with the

company. The majority of our Knowledge Transfer Partnership associates now work full-time for their partnership companies. The inclusion of this tool on the Postgraduate Certificate in Creative Industries indicates that the design decision trail can be used students across the creative industries. It is also incorporated into the new MA in Design at the University of Northampton.

## **4 TUTOR PERSPECTIVE**

Up to date design decision trails can enable the tutor to maintain an overview of a large tutorial group and individuals. As the student has ownership of the design, the tutor may use Post-it notes to insert comments into the design decision trail rather than drawing or writing on student work.

### **4.1 National Student Survey**

The design decision trail can help cover many of the National Student Survey questionnaire [5] headings, such as:

- ‘The teaching on my course’- The design decision trail and tutorial mind maps can bring together teaching from across the course curriculum.
- ‘Assessment and feedback’ - The design decision trail can be used for both formative and summative assessments. The tutorial mind maps can be used at formative assessment points. The design decision trail and the tutorial mind maps can be sources of ongoing project feedback.
- ‘Academic support’- The tutorial mind maps and the design decision trail can record advice given to support student’s study choices.
- ‘Organisation and management’ - course organisation points can be signposted through the design decision trail during the final major projects when final year students are working more independently.
- ‘Personal development’- The design decision trail can allow the monitoring of student’s personal growth in confidence, professionalism, time management, presentation skills and network building.

## **5 EMPLOYER PERSPECTIVE**

Employers may not fully understand the nature of modern design, or appreciate how design may benefit their business. The design decision trail can help the potential employer understand the scope of the design applicants skills and qualities. If the application was unsuccessful for the student, feedback at interview will be simpler for the employer and useful for the student using points raised by the design decision trail. Employers may have an established design team. The design decision trail may make it easier for the employer to see how a new or replacement team member could fit into, add value, and perhaps develop new working practices within the business.

### **5.1 Endorsements**

From past student feedback from design interviews where the student applicants have used their design decision trails I have collated endorsements from their employers and contacts.

‘...I showed them my decision trail and from looking at that they said they liked my ideas and the way I thought. They offered me a place as an intern there and then.’

A third year product design student while still studying with us was given an internship with the advertising company on the strength of his decision trail.

Another comment at interview supported the design decision trail:

‘Having a trail of one’s work allows us to make coherent decisions based on fact. Keep up the trail!’

At another interview a potential employer said about the design decision trail that:

‘he hasn’t seen one before and that it does help to show that you (the candidate) can make decisions on your own.’

## 6 CONCLUSION

This paper has described the invention and development of a design decision trail in undergraduate and postgraduate design courses at the University of Northampton. It has discussed and described what constitutes a design decision trail. From a student perspective, it has focused on its function as a visual narrative, creative auditing and tutorial tool and an aid to personal growth and potential employability. It was also described the design decision trail as a reflective learning tool which captures the signposting and timing of critical design decisions focusing on the process rather than the finished product. The paper also discussed how it may be used as a student-marketing device and how it can be used when networking and pitching for employment. The paper promotes the potential of the design decision trail across the design provision at the University of Northampton. From a tutor perspective the design decision trail can aid the overview of tutorial groups and individuals and covering some of the points audited by the National Student survey. From an employers perspective the design decision trail was shown as a vehicle for helping the potential employer fit a new employee into an existing team or how an applicant may develop an existing business. Endorsements were gathered regarding how the design decision trail was used successfully at interview.

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