5:20 – 5:30: Welcome and Introduction - Eram Rizvi
5:30 – 6:30: The Applications Process:
10’ How to Communicate your Skills & Competencies - Zi Parker
15’ Examples of Competency Framework - Nick Bryan-Kinns
10’ Preparing Your Research Proposal - Eram Rizvi
10’ Self-Reflective Summary - Zi Parker
15’ Submitting Your Application - Gabriella Caminotto
6:30 – 6:45: Q&A session
Welcome and Introduction

Eram Rizvi
How to Communicate your Skills & Competencies

Zi Parker
Recognising your skills:

• We are using a competency based application process for the EngD.
• This is to allow you to explain your skills and competencies in areas beyond academia.
• This is to allow you to use your industry or non academic experience to support your application.
• We will support you to articulate this.
Communicating your skills and competencies

• Do you have demonstrable experience of the required competency or skill?
• Are your examples relevant?
• Have you articulated your role and your action, and your contribution to outcomes?
Think S.T.A.R

Situation

Task

Activity

Result
Key competencies we are looking for:

• Problem Solving
• Innovation
• Critical Analysis
• Adaptability
• Responsibility
• Communication
Problem Solving

• *e.g. the use of theoretical knowledge to solve problems in new technologies*
Innovation

• *e.g. the use of theoretical knowledge to develop new analytical techniques*

• *e.g. the application of knowledge to deliver innovative products and services*

• *e.g. the development of solutions to engineering problems using new or existing technologies, through innovation, creativity and change*
Critical Analysis

• e.g. the use of theoretical knowledge to analyse, interpret, and explain complex situations
Adaptability

• *e.g. the ability to apply theoretical knowledge across different activities and situations*
Responsibility

• *e.g.* technical responsibility for complex engineering systems
• *e.g.* technical accountability for complex systems with significant levels of risk
• *e.g.* project management of complex projects
Communication

• e.g. the ability to write technical documentation and technical reports to a publishable standard
Examples of Competency Framework

Nick Bryan-Kinns
Competency Example: The Usability Engineer

A Usability Engineer's role is to design, build, and test user interfaces

- Mostly web interfaces
- Aim for high usability and accessibility
- Follow best practice in Human-Computer Interaction

Application: up to five of your work based competencies illustrated through workplace projects and work: Problem solving, Innovation, Critical analysis, Adaptability, Responsibility, and Communication

Tip: Use the STAR!
Problem Solving

In 2001 I was responsible for the design of the user interface and Information Architecture of a new web portal for a local government. At the time there were no ‘best practice’ design patterns for local government web portals which made the usable design of the user interface and Information Architecture a difficult problem to solve. The local government web portal included large amounts of information, services, and forms for a wide range of local government activities from paying for parking permits and council tax to finding out about local council meetings, planning applications, and so on. I used HCI theories on cognitive load and applied visual perception along with HCI methods of low-fi prototyping and cognitive walkthrough to inform the design of the Information Architecture of the web portal. This resulted in an iterative design and build of the new web portal which was successfully launched in 2002.

(149 words)
In 2002 I worked with a team of designers and programmers on the design and development of an intranet for a major pharmaceutical company. The pharmaceutical company had offices in several countries and it was not possible to hold design sessions with all stakeholders co-located which posed a major challenge for our iterative design approach with usually required co-present activities such as brainstorming and ideation in order to gain trust, insight, and commitment to the project. In partnership with the design director I developed a new analytical technique for analysing the results of exploratory design sessions in multiple locations in tandem with low-fi prototyping and synthesizing these results into a coherent design vision. Using this new analytic technique we created a global design language for the intranet which was successfully deployed through design and build of the intranet across multiple European sectors.
Critical Analysis

Throughout my time as Usability Engineer I routinely had to analyse and explain the results of complex user studies to clients such as Managers, CEOs, CFOs, and internally within our own company to colleagues such as Project Managers, Designers, Programmers, VPs, etc. These user studies typically involved testing the design of a user interface with hundreds of people to generate statistically reliable results. The key challenge was that such user studies often indicated that current designs were not usable, and that more expensive new design options would make for a more usable experience. The informed use of theoretical knowledge was essential when making arguments for investing in the design of more usable systems based on the findings of the user studies. For example, using theories of consumer behaviour and cognitive psychology to explain why users were behaving as they did with the (poor quality) designs, and theories on the return on investment of usable design to explain why it is important to invest in (re)design of unusable systems.

(168 words)
Adaptability

I used theories from Human Computer Interaction in the traditional areas of computer screen based user interfaces such as websites, and also adapted the application of these theories to mobile user interfaces (simple text based interfaces in the early 2000s), and also to the emergent interactive TV paradigm in the early 2000s. These three situations require careful application of the same theoretical knowledge of cognitive psychology, visual perception, and human physiology. For example, at the time many HCI theories assumed that users would be used a keyboard to interact with the system, but this was not the case for interactive TV, so the theories needed to be adapted. Similarly, HCI assumptions about screen size and the use of a mouse needed to be revisited when designing for a mobile phone with tiny screen and tiny keys. When working for an advertising agency client in 2000 I used HCI theories across web, interactive TV, and mobile phone to design a consistent user experience whilst respecting the physical affordances of the different touchpoints.

(171 words)
Responsibility

I led the design of the first online banking website for a major high street bank. This involved being responsible for a design which had to be both usable and secure – it must on the one hand be easy to use, but also ensure that access is secure. Furthermore, the nature of online banking meant that several different backend systems needed to be presented to the user in a seamless user experience e.g. applying for a loan was a different backend system to view a current account statement. I was responsible for ensuring that both the user interface design was consistent, and, importantly, that the authentication systems were common and secure across the backend systems.

(115 words)
Communication

During my time as Usability Engineer I wrote extensive technical documentation to specify the Information Architecture of websites we had designed. These documents were used as i) a sign-off for clients on the design of the flow of the interaction, and ii) to provide the technical specification from which the website was built by programmers. At that time I was also a contributor to “Usability News”, the online news service of the British Computer Society’s Human Computer Interaction Group. I contributed articles about state of the art corporate usability practice based on my commercial experience. These articles were then used as the basis for writing a book chapter on usability and prototypes in commercial practice which was published in 2001. With the company’s design lead I wrote an article in ACM Interactions (2004) on our view of the future of mass communication from a corporate interaction design perspective and how it needed to become more of a two-way conversation. In many ways this article was forecasting the rise of autonomous agents in communications, or bots as we now call them.

(180 words)
Preparing Your Research Proposal

Eram Rizvi
Self-Reflective Summary

Zi Parker
Self reflective summary

• Opportunity for self reflection
• What skills do you feel you need to learn?
• Build this into a personal development plan.
• This is an opportunity for you to consider what development needs you have and how you would engage with the PhD programme and our support to meet these needs.
Self reflective summary

• Set yourself goals.
• Understand gaps in your knowledge.
• Recognise opportunities to increase
• Develop your skills or increase your knowledge.
• Use your support network.
• Measure your progress.
Submitting Your Application

Gabriella Caminotto
Questions?