



Interaction  
Design  
Institute  
Ivrea

# Zoom out **Zoom in**

Designing interactions in services and social networks

Faculty:  
Simona Maschi and Neil Churcher

## The framework

Interaction design is not only about forming an action and reaction between a person and an artefact, whether a computing device or a space. It also concerns the socio-cultural, economic and ecological systems embedded in and connected to these interactions. In this framework, the design of services is becoming a crucial activity towards innovation.

In **Zoom Out – Zoom In**, we will learn about service design by applying it to the Ivrea context. In particular, we will address the following topics: (1) Preventing Obesity, (2) Recycling Programmes and the Citizen and (3) The Evolving Library. By challenging a design process that uses 'real life' as a teaching platform, the investigation will start on the knowledge raised in the everyday experience of being a citizen connected to public and private services, to networks of friends, families, colleagues and unknown people. We will look at the way people act, communicate and connect in the contexts we have chosen for the course. Taking this approach, the social-cultural-local environment becomes an active design factor rather than a passive one. In this perspective, we will not only look at designing for the individual, but designing for communities of people and the social networks that surround them. We will try to understand what new emerging social issues need the opportunity of new services and systems. We will look beyond technology-only solutions in order to imagine broader benefits for society in general.

**Zoom Out – Zoom In** will focus on both systemic/intangible and detailed/tangible design. In the first part, we will zoom out to understand the broad picture of the services we want to design. In other words we will look at the values exchanged between the end-users and the service providers, including the positioning of the service within a given cultural, social, and economic context. In the second part, we will zoom in and focus on the specific 'touch-points' through which the end-users interact with the service. These touch-points can develop into 2D or 3D interfaces. In the zoom out part we will look at what the service does and why, in the zoom in part we will look at how users interact with the service in everyday situations.

## The Context

The general context for the design exploration is Ivrea and its community. Ivrea should not be seen as a 'client' of our services. It should rather be used as a starting point for our design process, as a source to inspire our imagination. Representatives of the Town Hall and local associations will help support our understanding of local existing social networks and services. They are willing to provide us with the information we might need to inform our decisions. The fact that we will use Ivrea as a real context to identify challenging design spaces, does not mean that we will have to design services for Ivrea only.

With an aging population, a larger percentage of citizens are not working. This has two main effects. Firstly, it creates a bigger demand for public services and it increases the need for activities outside the job market. Not only healthcare services and assistance to the elderly will be in greater demand in the future but also a number of other public services will see a comparable development. At the same time a number of service institutions will experience an increase in users – who will often be more demanding regarding the quality of the service. Secondly, there will be lower percentage of people within the working age. This means that funding and human resources for these public services will be put under increased strain. This development is not typical of Ivrea, but can be witnessed all over developed countries. If the problem is clear, the solutions are still difficult elusive. In this class we would like to challenge you, as designers, to design innovative services, which are win-win solutions for both the community and for service providers. In this context, new forms of integration between the public and the private sector might be an option to investigate.

## The Themes

You are asked to choose one of the following topics: (1) Preventing Obesity; (2) Recycling Programmes and the Citizen; (3) The Evolving Library. Each of these themes are very wide and complex with many problems to be faced. However it is easy to be idealistic, and the key thing to remember is that changing lifestyle patterns are difficult, disruptive and slow. Intervention in isolation is unlikely to be as successful as a more holistic, encompassing approach grounded in the context of people's real lives, motivations and concerns. Therefore research into the lives of your target group and an illustration of how your proposed solutions fit into the context of their lives is an essential part of your submission. Problems should be looked upon as opportunities, either commercial or social, and solutions be attractive rather than worthy.

## Key Messages

- 1) Designing for systems and stakeholders is a potential strategy towards a more sustainable world.
- 2) Designing services requires a systemic approach and a complex design decision-making process (from understanding use context to generating innovative business models)
- 3) Services are enabled and supported by complex technology
- 4) Communicating the complexity of systems and services require new visualization tools

## Key Learning

- 1) Using user research techniques, such as personas, user interviews and observations
- 2) Using experience prototype techniques in the early design phase
- 3) Using Service Ecology mapping to drive innovation
- 4) Using basic business modelling techniques

## Criteria For Success

- 1) Generation of communicative prototypes that capture the design model suggestions
- 2) Representation of knowledge gained around the three class topics.
- 3) Clear, well communicated design-decisions throughout the project process.
- 4) Shown ability to define problems and create credible service solutions.
- 5) The solidity of design solutions within both scales of zoom-in, zoom-out
- 6) Reflection of participant learning allowing the ability replicate the process in future work
- 7) The results of the course will contribute to:
  - improve the current visualisation and communication techniques in the arena of services
  - generate clarity and identity about service design at IDII

## Key Deliverables (See Attached Document)

The design outcome and deliverables will be reflecting the structure and schedule of the class. The expected deliverables will have to justify the following decisions:

*Mission:* understanding why?

*Context:* who are you designing for?

*Concept:* what is your design idea?

*Scope:* what are the boundaries of the system you are designing? (which stakeholders, which processes, which technology are you including?)

*Solution:* what is your tested design solution?

## Group Work

We encourage you to work in groups of 2-3 people. Maximum sizes at faculty discretion.

## **(1) PREVENTING OBESITY.**

With the support of the City of Ivrea – Assessorato alla Cultura and the Design Council, London.

We are getting fatter. Statistics show that in Britain the prevalence of obesity has trebled since the 1980s. 22% of men and 23.5% of women are now obese and well over half of all adults are either overweight or obese – almost 24 million adults.

Obesity costs money and lives. Overweight and obesity increase the risk of a wide range of diseases and illnesses, including heart disease, type 2 diabetes and some cancers. Obesity reduces life expectancy on average by 9 years and is responsible for 9000 premature deaths in the UK each year. Whilst political commentators call for taxes on fatty foods and insurance companies raise premiums for overweight clients, the media decry the 'Nanny State' in its attempts to legislate where we can and cannot smoke, and what we can and cannot eat. The Food Standards Agency proposes a 'healthy indicator' coding system for food packaging, while corporations such as McDonalds and Cadburys, running scared of litigation over poor health, distribute free pedometers and coupons for exercise equipment. Still portion sizes continue to rise and 'Fat acceptance' societies begin to appear. Obesity is high on the agenda of many Western countries. However, as the British Secretary of State for Health, John Reid MP, states:

"We recognise that these issues are not just a matter for Government – they involve individuals and the choices they make, as well as the food and leisure industry."

The role of design in the area of health has traditionally been about designing equipment for treatment, and environments for recuperation.

We believe that design can provide a new perspective on current social and economic problems and contribute to the issue of prevention. Designers have the skills to define problems as well as to solve them and insight into the ways that people live their lives is at the heart of everything we do.

Overweight and obesity occur when a person gains excess weight to a point that it starts to endanger their health. Without periods of increased calories intake and/or decreased activity, individuals will not gain weight, no matter what their genetic makeup.

Changes in lifestyle over the last two decades – observed in many countries – are likely to have contributed to trends in obesity. Calorie intakes may have increased – portion sizes have grown and snacking, sugary drinks and eating out are more common – and people, on average, are less active – with sedentary jobs, walking less, watching more TV and less likely to play sport.

The task lies not in increasing support to our current curative health services but redirecting funds into new services aimed at creating healthy lifestyles.

### **The challenge**

Obesity is not an easy problem to tackle. The best long-term approach is prevention, particularly in childhood. Critical to this is improving diet – including intakes of fat and added sugars – and increasing physical activity levels. Action needs to take a lifecourse approach – starting from birth. Even a modest weight loss can significantly improve the health of people who are already overweight or obese.

Prevention, however, requires a massive culture shift, and significant changes in behaviour and lifestyle. These changes cannot be delivered by traditional health services, nor will they take place in traditional institutions of care – hospitals, doctors' surgeries or care centres. The main influences may not come from health professionals such as doctors and nurses, or from government health messages, but from a wide range of sources – friends, family, colleagues, the media, food and leisure industries and people's immediate environments. What kinds of foods are available in the local corner shop may have more impact on an individual's health and wellbeing than any number of pro-health advertising campaigns. In this new wellbeing paradigm, what role does the traditional health service play?

This brief is not simply about encouraging people to count calories and take out a gym membership, but ensuring that healthy eating and physical activity becomes a natural and accessible part of living their lives.

## **(2) RECYCLING PROGRAMMES AND THE CITIZEN**

With the support of the Società Canavesana Servizi and the City of Ivrea.

One facet of our modern lifestyle is the produce of huge amounts of waste, a high percentage of which is produced in households, mostly in the form of packaging. The more we buy products, the more we produce waste, the more we use natural and artificial resources (materials and energy), the more we impact upon the environment in which we live. The problem is exasperated in the difficulty of identifying responsibilities, roles and especially solutions. Experts talk about a range of possible strategies to cope with the complexity of the problem.

One of these strategies imagines waste, not as a final step of the consuming process, but rather as an initial point to produce new products, new materials or new energy. For example, used bottles of glass can be washed and reused about 50 times before the glass needs to be completely reprocessed and reproduced. Plastic and paper products can be processed and transformed into new materials. In such a view, consumption and production phases become sequentially integrated into a more cyclic dynamic.

### **The challenge**

Given this overall environmental strategy, new types of action are required. Modern environment policies are based on a new type of cooperation between citizens and waste gathering organizations. This cooperation has generated the active role of the citizen in the differentiation of the waste gathering (here called the Recycling Programme). Citizens in fact, are not only responsible for the waste problem, but also responsible for the solution.

Even though in some cases people have reacted in a positive way to these changes, there are still some situations where service efficiency can be improved. Many people have been asked to organise their waste gathering in new ways – from simply throwing everything into the same bin to be conscious about where to put what and when and how to dispose of the waste. The focus here is on emerging values, tasks, and behaviours related to the recycling programme.

Why do we have to do it? Which are the rules to follow to do it properly? How do I understand what and when to take the garbage to the rubbish skip? What happens if I mistake the rubbish skip? Which are the benefits that I, as a citizen, can give to the environment when I differentiate my waste gathering? Why is it important that everybody does it? What we are lacking is a clear communication of the benefits that the differentiated waste gathering can bring to the society, to the environment and to the economy of the community.

We challenge you to envision scenarios where the recycling programme is an attractive solution in everyday life.

### **(3) THE EVOLVING LIBRARY**

With the support of the Biblioteca Pubblica di Ivrea and the City of Ivrea.

Libraries are part of our culture. In the civilized world, libraries are amongst the most traditional services that a town can offer to its citizens. The core activity of libraries has basically never changed since they exist. We go to libraries to access a collection of books and research material, which are available for people to read and use. Two things have significantly changed during the centuries. First of all the audience: initially libraries were used by a restricted amount of people, only those ones that were educated and that had both the time and the need to increase their knowledge through research. Nowadays a large portion of citizens are using libraries. Second of all, the organizational systems for book searching, for the loan and return of books, for accessing library material in general have all enormously changed due to technology and the Internet.

Ten years ago it was predicted that in 2005 we would find, exchange and read books in new ways. Experts in future studies and technology were talking about an almost complete dematerialisation of texts and written documents in general. We were expecting to empty our bookshelf and to install big touch-screens in our homes. We have not seen that that immediate future. Publishing on demand technology and ITC progress has impacted some parts of our everyday reading habits and expectations. Still, libraries and books continue to be part of the physical world.

#### **The challenge**

The library in Ivrea works successfully: the rate of books exchange is one of the highest in the region. The City of Ivrea has recently presented the project for a new library to be built near Piazza Ottinetti area. This fact generates room for innovation and improvement of the librarian service as such. As designers, we find challenging the shift from tradition through innovation library service. We want to challenge you to see how we can improve the way libraries work today, both in their core activity and in widening the range of services that are offered to the citizens.

What we want you to look at is how the library as such can 'evolve' to respond to new emerging demands. As an inspiration to your design work, we suggest you to consider a few social factors:

- the emerging of a multicultural and multi-racial community in Ivrea. Libraries are often considered as a clear expression and reflection of the cultural level of the communities they are built in. On this basis, Ivrea needs to adapt to its new social and cultural patterns.
- the increased number of elderly people and the responsibility which the Public Administration has to support their free time. Statistics show that the 'elder age' is considered by many to be the time for catching up with culture and education.

## **DELIVERABLES**

We propose a set of five deliverables that reflect the five decisions to be taken during the design process: Mission, Context, Concept, Scope and Solution. We know that a design project can start anywhere on the decision-making hierarchy based on its definition by outside directives and innovation strategies. It's been argued by a multitude of theorists and practitioners that design is not a linear process, with interactions and overlaps between the sequences of decision-making. Still, we expect that deliverables will have to justify the following decisions:

### ***Mission: understanding why?*** **(Week 1)**

In order for the promise of the design to be clearly stated, the mission of the project should be clearly articulated. The mission statement should answer the question, 'Why are we doing this project?' and 'What is the contribution that this project will make to the world?' Webster's (1966) defines a mission as 'the special duty or function on which someone is sent, a special task or calling.' The mission statement should define the special purpose that the system must perform in order to be successful. In order for the mission to be accomplished, a statement must be developed that clearly expresses the level of quality to be reached by the final design regarding all design issues that have been uncovered in the initial analysis phases. The mission statement is the conceptual foundation which creates direction and shared vision amongst members of the design team. The definition of the mission usually corresponds to a statement of measurable goals that should be achieved. It is concerned with motivations, values and criteria to be implemented, but it is not concerned with a clear definition of the actions to be taken, strategies or tools required to achieve the goal. The mission statement is supported by a set of criteria for success defined by the design team itself.

**Deliverable 1, due on January 31st**

### ***Context: for whom are you designing?*** **(Week 2)**

Context-based decisions help to explore which problematic situations users experience in their everyday lives. These decisions support the team in understanding real situations of use. By doing so, they generate an early setting for the problem. This will lead to the development of new design solutions. The thing that comes first in design-driven innovation is deciding what people - tacitly or explicitly - are asking for. By identifying the context, we are examining how design potentially can make a qualitative change in people's lives.

**Deliverable 2, due on February 4th**

### ***Concept: what is your design idea?*** **(Week 3/4)**

In order for the system mission and the envisioned context of use to be realized, each solution component (product, service interface, ...) must function in a way that promotes the level of excellence desired. Each definition is the vehicle for communicating the level of function required to implement the mission in the particular context of use. The concept has been called by other names as well, like 'design criteria' (Pena, 1987), 'performance requirement' (Duerk, 1993), and 'objectives'. The description of the concept introduces a measurable function that the product or service must live up to in order for the mission to be reached. In this process we split the decision about the concept into two different deliverables: (3a) the concept of the service and (3b) the concept about the touch-points. 3a is about the general description of the service and how it works. 3b is about the description and qualities of the different touch-points, which are the 2D or 3D interfaces between the service and the users.

**Deliverables 3, due on February 11th and 18th.**

**Scope: what are the boundaries of the system of your design?**

**(Week 5)**

Which stakeholders, which processes, which technology?

The scope inevitably sets the boundaries of the system; it controls what is in and what is out. When we look at scope, we ask, "Which is the system that we can reasonably handle?" In addition, all elements that are 'in' will not be treated equally. The way that the system is scoped greatly influences the solutions the design team ultimately envisions. The system scope also controls how the team members react to almost everything they encounter in their solution search (Sternberg & Davidson, 1996). In design-driven innovation, the scope is the potential audience of the innovation effect. It clarifies the target of the design process by identifying which people will benefit from the end result of the design process. At a managerial level, the scope drives strategic directions through the visualization and identification of an innovative niche of the market. Deciding the scope within design processes means identifying the type of stakeholders needed to accomplish the innovation strategy. By doing so, we provoke and answer the question 'Who might be interested in joining the process?'

**Deliverable 4, due on February 25th.**

**Solution: what is your tested design solution?**

**(Week 6)**

An appropriate solution should address the concerns of its users as well as those of other stakeholders. In a service design process, this includes a clear articulation of the value exchange amongst stakeholders. This decision is concerned with desirability, functionality and feasibility testing.

**Deliverable 5, due on March 4th.**

## **Design Production Workshops**

**(Weeks 5, 6, 7)**

To support the 5 deliverables, the project will include 3 design production weeks before the final presentation on the 11th March. Neil Churcher and visiting faculty Mark Delaney will host project team workshops over their duration. Week 5 workshops will support the deliverable of *Scope* for Friday 25 March. Week 6 workshops will support the deliverable of *Solution* on Friday 4 March. Students will have 1 final week to focus on the **final presentation on the 11th March**. Workshops will concentrate on design production, modelling, prototyping and presentation development.

**Mark Delaney** is a London Based Industrial and Product Designer and recent Design Manager of Samsung Design Europe. Mark has also previously worked with Fitch London and Tangerine.

**Final presentation due on March 11th.**