newcitymedia
story. design. impact.

Case Study: Imperial College London
a collaborative approach to architecture and design

Imperial College London is one of the top 10 institutions in the world for science, medicine and engineering. We were selected to redesign their web site in December 2006 after an international search. New City Media provided architecture and design for all top sections of the site, and developed templates for integration into their CMS. We also assisted with a variety of special projects. Because of the distance, we did much more of the planning work in intensive on-site sessions with them.

Research and Analysis

Understanding audience goals through interviews

To better get inside the heads of the people using the site, we conducted 39 one-on-one interviews with members of Imperial's audience including:

- Students (Undergraduate & Postgraduate)
- Prospective Students (Undergraduate & Postgraduate)
- Alumni
- Staff (Academic & Non-Academic)
- Prospective Staff
- Media
- Industrial Partners/Business
- Tutors & Parents

Interview questions ranged from general internet usage to specifics such as: " Is there something you've looked for on the Imperial College web site in the last month, but have been unable to find?"

These questions gave us insight as to how various audiences were using or anticipated using the site. Specifically, we were looking for commonalities in tasks they wanted to perform and information they were hoping to find. We later used the interviews in order to develop "mental models," a tool we sometimes use to develop a site's information architecture.

Creating mental models
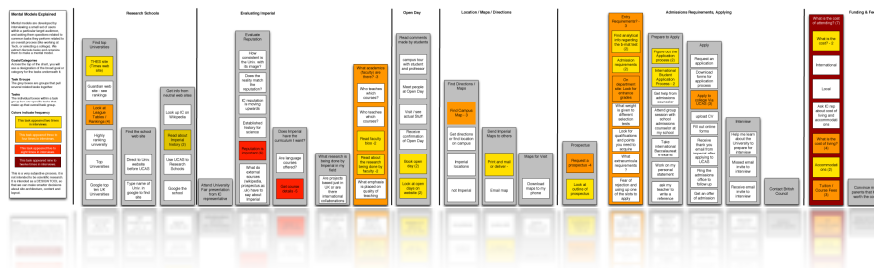
In this model, the skyscraper on the right had to do with funding and fees. Lots of interviewees wanted to know, what is the cost of tuition, the cost of living? What would supplies cost?

After reviewing the results of the interviews, we created mental models for each audience. We read through the transcripts and pulled out discrete tasks. We grouped similar tasks together under broad goals. Color saturation was used to display how often a particular question or topic was mentioned.

Architecture

Discovery through collaboration

While we did most of the models before visiting on-site with Imperial in London, we saved Prospective Students to work on together. For that portion, we worked in pairs, one person reading the interview transcript and another person capturing user tasks on post-it notes. The process of actually "listening" to the users in their own voices and deciding what to take away from the interviews had a dramatically greater impact on the team. We saw an increase in:

⋯⟩ Enthusiasm for meeting user needs

⋯⟩ Understanding of the real problems

⋯⟩ Retention of key user findings - In later sessions someone would say "but we heard the users say they need X"

Posters and Post-its - a structure reveals itself

Through the interviews, mental models and review of the current site, we determined that Imperial's greatest needs were in better "landing pages." A landing page serves as a way for the user to get their bearings and get introduced to content in that section. Plus, we'll often use these pages to show "buried treasure."

We created poster-size pages for all of our anticipated landing pages and labeled each with the page name and taped up them around the room. We then took the post-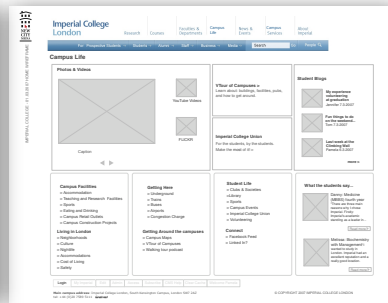its created from the analysis of the mental models and placed them on the appropriate 'page' and grouped them according to task. Scaling up the information architecture in this way allowed everyone to get a sense of the overall structure and user experience. It also got people up and moving!
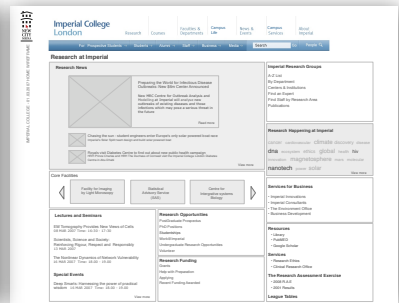
Creating wireframes
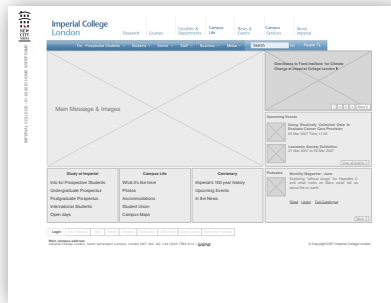
Home page

Campus Life

Research

For information-rich sites like Imperial's, content drives design. Wireframes are a way to display content and hierarchy without having to go through the time and expense of creating a design that might get thrown away. New City Media did over 25 wireframes for both landing and generic pages.

User testing and analysis with 'clickable' wireframes

After creating the various wireframes, we turned them into simple html pages with navigation and clickable image maps. This allowed us to quickly create or modify the major sections of the site and take it for a test drive. We then went and devised tests for the various user groups to perform. As different users had different tasks, we asked them different questions. So for example:

A graduate student question -
You need to see a professor in the Bioengineering department but you've forgotten which building it's in. Find that out.

A staff question -
*How would you go about booking a meeting room?*

We had the chance to test 16 total users on site with the wireframes. Their performance and comments allowed us to find trouble spots and make recommendations in our report. We incorporated the changes and moved on to design.
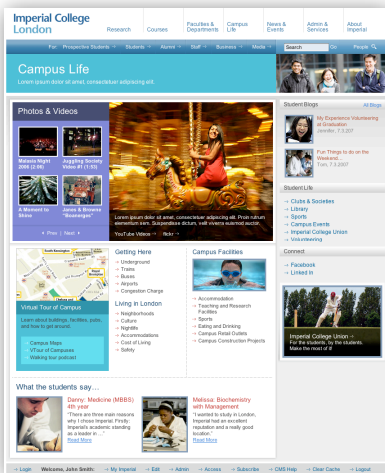

We "graded" each user on how easily they performed a particular task and assigned it a color, ranging from easily completed to unable to complete the task.
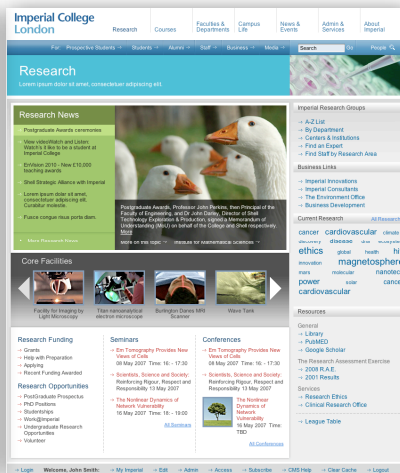
newcitymedia
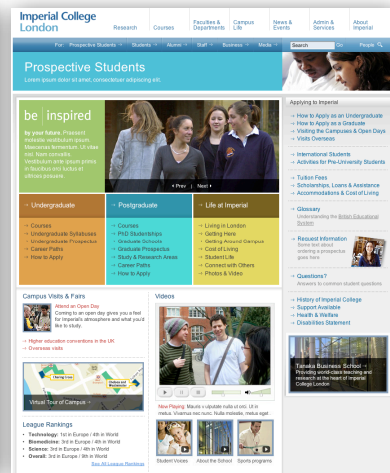story. design. impact.
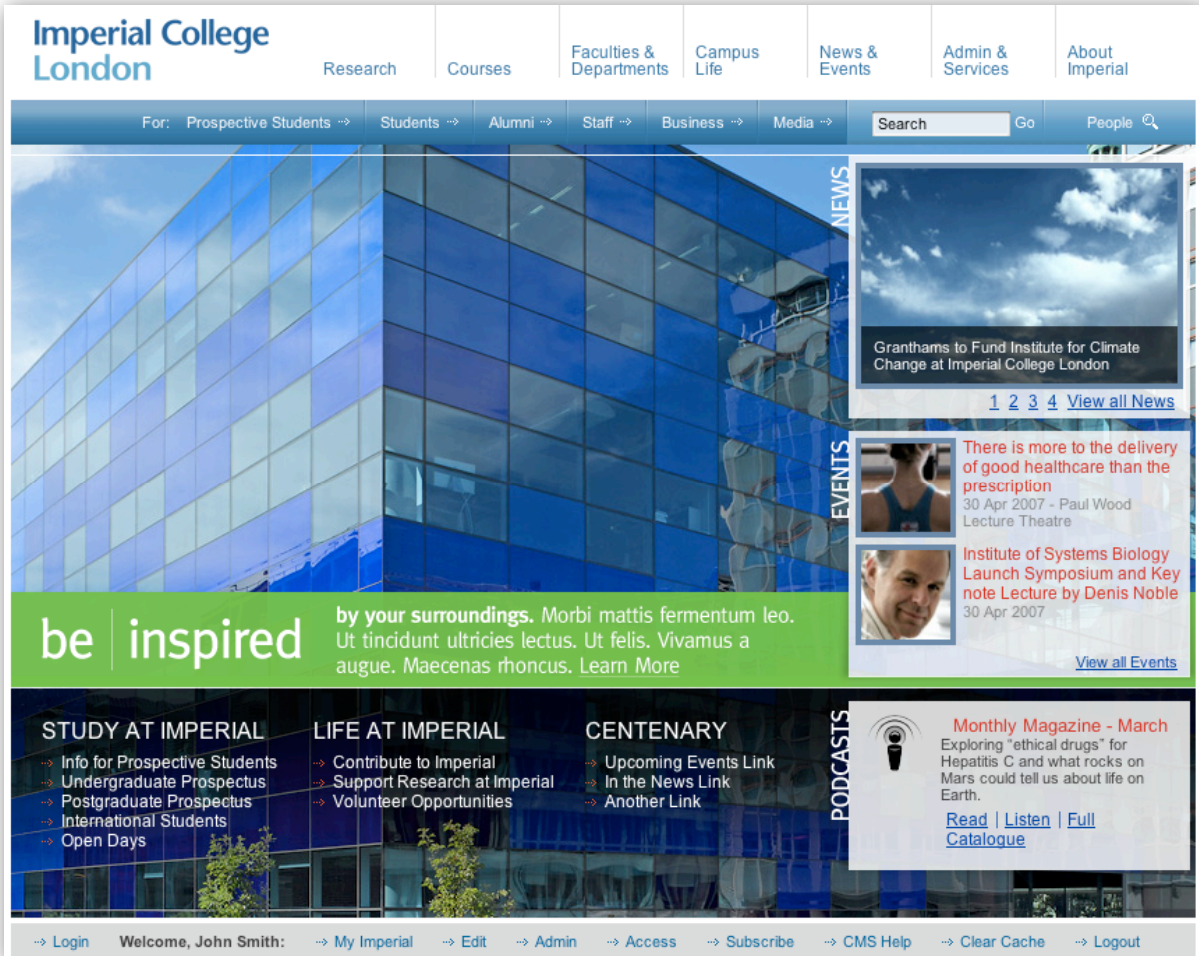
Design

The redesigned home page


Campus Life

Research

Prospective Students

Creating visual impact

Colleges and universities in the UK are having to compete for students more than they have in the past. Creating an impact and a lasting impression seemed key. Additionally, we heard again and again in our interviews that people unfamiliar with the school wanted to get a sense of place. The biggest question in their minds was "What is it like there? And what will my life be like?"

For the design itself, we incorporated large photographs that convey both place and story. We built on Imperial's existing color palette and created a vibrant color scheme for the web. We also compartmentalized related data chunks to make the pages scannable while encouraging exploration. These things in combination created a vibrancy, warmth, and sense of action to the overall site.
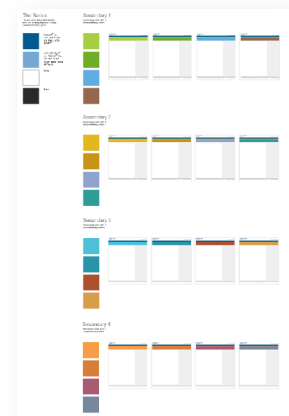
Color schemes for secondary pages

Show vs. Tell
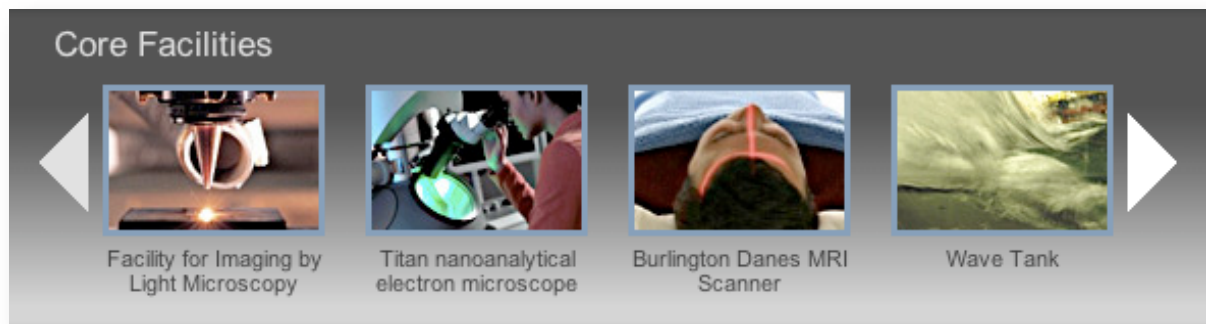
The other major component of the design was finding new ways to tell the Imperial story. We created various interactive widgets and portals sprinkled throughout the design of the site to better show off Imperial's strengths and to demonstrate that sense of "place." Some of the buried treasure we found focused on the high-tech facilities and labs the college possessed. By consolidating them into one place the user can quickly absorb the breadth of research the college does and its dedication to acquiring knowledge.
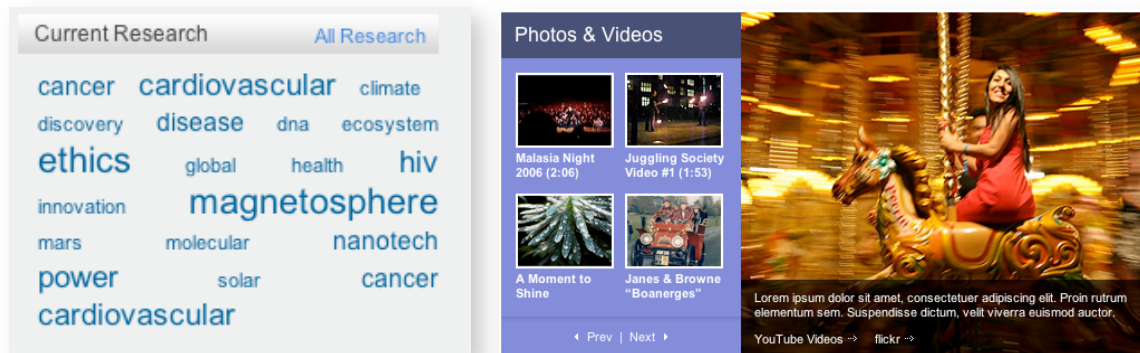
The dynamically generated tag cloud on the research page allows users to quickly scan topics being studied at Imperial.

Students will be able to contribute photos and videos through services like Flickr and YouTube.

newcitymedia
story. design. impact.

Production

Standards compliant implementation

NCM provided Imperial with finished html which was relied on open standards for CSS-driven layouts, and was also compliant with European accessibility standards. Additionally, we tried to keep things as "Drag and Drop" as possible. For example the interactive "news-block" below can be incorporated easily into any page. And various "blocks" can be stacked on top of one another to create visually interesting designs, with a minimum of fuss and customization. Pages were tested for validity and in IE 6, 7, Firefox and Safari.

The news-block changes pictures and captions via JavaScript when the the user mouses over the headlines on the left.

We provided Imperial with blueprints of how overall pages are constructed with annotations describing the breakdown of structural elements.

For tricker content areas, we gave code examples of how the markup interacted with the style sheet.

Summary

One of the things Imperial liked about the process was how the design was built on research that gave us a solid understanding of audience needs. Imperial appreciated the iterative approach as well. Assets and ideas were created, refined, and carefully re-examined. Imperial was a great partner in the project, taking an active role at all stages.

Imperial launched their new site in December 2007.

"When we talked to them, we got the feeling that they understood the kind of issues we were facing in such a large and complicated institution... The skills we picked up from the New City Media team are some we'll be using for many years to come."

Pamela Michael
Head of Communications Projects
Imperial Web Project Lead

Listen to Pamela Michael and Beth Elzer talk about their experience working with New City Media:

http://imperial.newcitymedia.com/promo_video/imperial_web.wmv