

London Cancer Website

Redevelopment Specification



Website: londoncancer.org

Monday 26th October 2015

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Completed for Client: Priyanka Bhatt on behalf of London Cancer & UCLPartners

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About London Cancer

What is London Cancer?

London Cancer is a partnership of NHS, academic, charity and cancer specialists serving north east and central London and west Essex and is part of UCLPartners' integrated cancer programme within the Academic Health Science Network.

London Cancer is dedicated to improving the health outcomes and experience of people with cancer and supports its partners in primary, community and hospital services to provide expert, compassionate care for every patient, every time.

London Cancer's aim is to ensure that all patients with cancer in the region have access to the full spectrum of treatment and therapy options of a world class cancer system – no matter where they live or where they are first treated.



Brief Background of London Cancer

A new way of organising cancer care was recommended by a review by the NHS in London to establish why, despite having many excellent cancer clinicians and centres, the capital has some of the worst cancer clinical outcomes in the country.

The review concluded that later diagnosis of cancer is a major factor in lower survival rates in London. Radically re-organising care and raising public and primary care awareness of the warning signs of cancer and the importance of early presentation were recommended by the review as critical to eliminating the estimated 1000 avoidable deaths from cancer in London every year.

As well as the poorer relative survival rates in London, the integrated cancer systems will address the lower levels of patient satisfaction in the capital, highlighted by the National Cancer Patient Survey. London had the lowest scores for 9 out of 10 questions where there were significant regional differences. The capital's biggest weaknesses were perceived to be the general organisation of NHS services, especially those connecting primary and hospital care, and the difficulties patients reported in contacting a clinical nurse specialist.

London Cancer's Objectives

London Cancer's overarching objectives are the following:

1. To **increase one year survival** for patients in north central and north east London and west Essex by improving earlier diagnosis, to reduce deaths by 200 per year from 2015/16
2. To **improve patient experience** by delivering 90% positive level of response on 10 areas most important to patients on the annual Cancer Patient Survey in 2015, with annual improvement
3. Give patients access to innovation by **increasing participation in clinical trials** to one in three patients over three years

Aims of the London Cancer Website Redevelopment

What is the aim of the website?

At it's core, the London Cancer website aims to provide resources and understanding for GPs, Patients and Professionals.

In addition:

- A homepage that is easy for Admins to edit content using user-friendly content management tools.
- There is a directory of local services that supports people living with and beyond cancer.
- An events page which can be filtered by audience and cancer type
- A blog/news page for updates and information
- A contact page that includes a Find a Hospital feature

Why is the website being redeveloped?

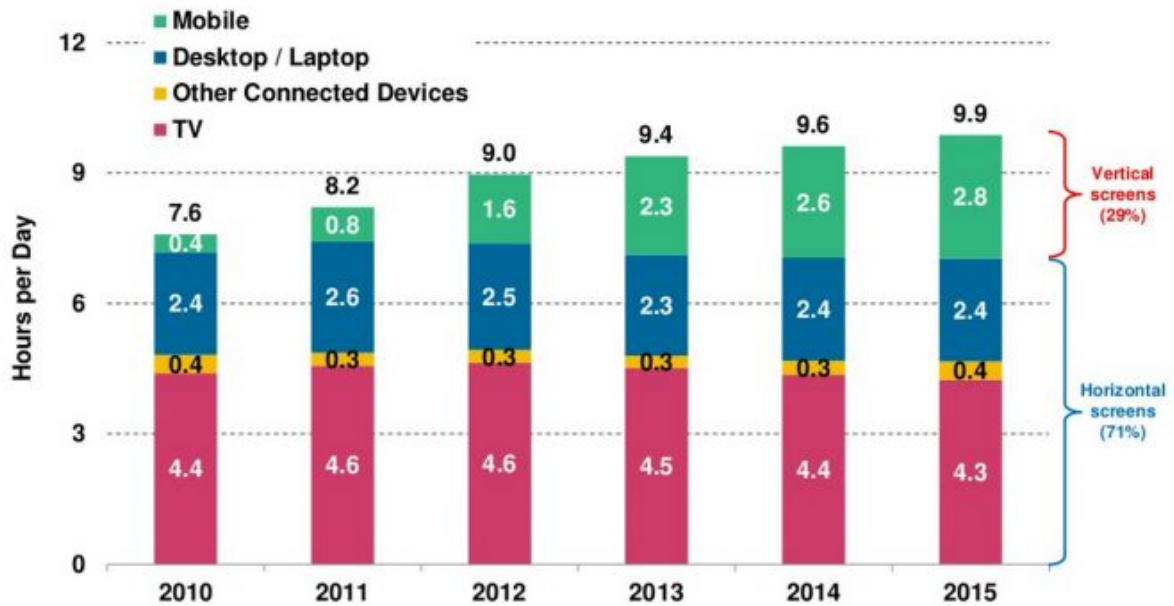
The three main goals of the website redevelopment is to:

1. Make the website responsive on desktop, tablet and mobile devices
2. Moving from the Umbraco content management system to WordPress
3. Updating and refreshing the website's content

1. Responsive

Currently the website is not suitable for use on mobile devices such as tablets or mobile phones.

Time Spent on Screens by Orientation (Hours / Day), USA, 2010 – 2015



@KPCB Source: eMarketer 4/15, Costue analysis. Note: Other connected devices include OTT and game consoles. Mobile includes smartphone and tablet. Usage includes both home and work. Ages 18+; time spent with each medium includes all time spent with that medium, regardless of multitasking; for example, 1 hour of multitasking on desktop/laptop while watching TV is counted as 1 hour for TV and 1 hour for desktop/laptop. 24

The above graph is from the famous Internet Trends made by Kleiner Perkins Caufield Byers which shows how Mobile (green) has overtaken Desktop/Laptop in 2014 and 2015. Lacking a website that doesn't look great for the user is now no longer an excuse.

Furthermore, not having a mobile friendly website now affects Google's search engine rankings for mobile searchers effective from April 2015. From this is it clear that having a responsive website has tangible benefits for the website user and London Cancer.

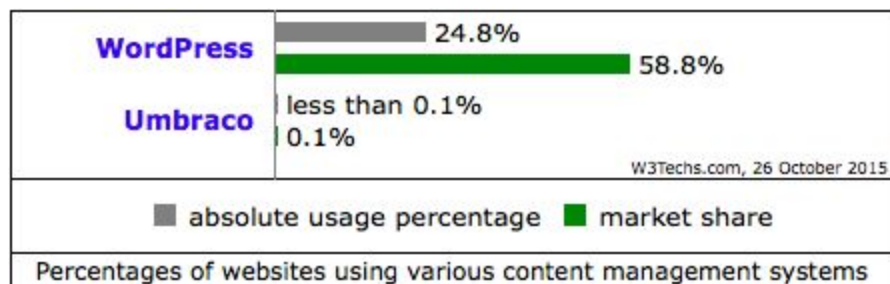
Once having completed the responsive transition we'll use the W3.org official mobile website validator: <http://validator.w3.org/mobile/> and Google's PageSpeed tool: <https://developers.google.com/speed/pagespeed/> to ensure that the website loads fast across all devices.

2. Moving from Umbraco to WordPress

[Umbraco](#) is a fully-featured open source ASP.NET (a Microsoft technology) content management system. The website of London Cancer is currently hosted and stored by Umbraco. Most of the code of londoncancer.org is written by CSHTML and contents are mostly written in XSLT.

Although Umbraco is easy for users to learn and use, when it comes to redeveloping London Cancer's website, [WordPress](#) is a more suitable answer. This is due to the need to update frequently the website when adding, new, events and other content. Furthermore, WordPress is a far more popular Content Management System with more resources for developers and is consistently updated, science their engineer are always available for online chat, email and forum in order to solve our problem.

Below you can see how much more WordPress is used than Umbraco:



With WordPress having a 58.8% share of the market compared to Umbraco's 0.1%. WordPress is also more popular among large organisations such as UPS, Facebook, and Time Magazine.

3. Content Update & Refresh

The contents of the website needs to be updated and refreshed as indicated by the client.

Furthermore, we plan on redeveloping the design of the website starting with the homepage to improve site navigation and content relevance for the different target audiences of the website.

Project Management

The project is being managed by both the developers Henry Moulton and Yun Mak with Henry being the team lead and in charge of liaising with Priyanka Bhatt who holds the role of Digital Communications Manager at UCL Partners who oversee the London Cancer website. Yun Mak leads research into Umbraco's and WordPress' technologies.

Project Communication

The following methods will be used to ensure that there is careful planning and well the project is well managed:

1. Bi-Weekly Meetings
2. Bi-Weekly Reports & Meeting Brief Emails
3. Meeting Minutes & Action Points Email

The client has indicated being happy for any additional communication to occur over email, however we are happy to utilise communication and project management tools such as [Slack](#) or [Trello](#) for communication and project management

1. Bi-Weekly Meetings

Starting from the initial meeting on October 20th there will be a meeting every two weeks during UCL term time with the next meeting occurring on the 3rd November. This will continue until the project finishes in April.

2. Bi-Weekly Report & Meeting Brief Email

There will be a bi-weekly report sent the client a few days before each meeting which will set the agenda for discussion and will be summarised in a meeting brief sent by the day before of the meeting.

The Bi-Weekly Report seeks to include:

1. An overview of what has been done over the last two weeks, highlighting progress, successes and any problems.
2. A summary of meetings held, including those with the client.
3. A list of tasks completed, including an estimate of whether the project is running on time.
4. Highlight any problems that need to be resolved before the next report.
5. The plan for the next two weeks.
6. A section (1-2 paragraphs) from both developers describing the tasks they have worked in the last two weeks.

3. Meeting Minutes & Action Points Email

Meeting minutes and action points will be sent by the day after the meeting to highlight the goals and action needed to be taken by both parties for the following two week.

Project Schedule

While the Bi-Weekly report is used as a keystone to ensure that the project is well managed, we have set some provisional dates for milestones to be achieved.

Deadlines	Milestones
3rd - 10th November	<ul style="list-style-type: none"> ● Gather requirements from client ● Deliver project specification to client ● Conduct User Testing surveys of existing website ● Research technical aspects of the project necessary to delivering the client's objectives
14th December	<ul style="list-style-type: none"> ● Deliver Prototype/Proof of Concept of initial London Cancer website ● Project Website Report that details research and progress ● Group Video Presentation
January	<ul style="list-style-type: none"> ● Pitch project to Client and UCL
February/March	<ul style="list-style-type: none"> ● Being user testing across target audiences

April	<ul style="list-style-type: none"> • Deliver the finished website's source code and database to London Cancer • Final Design and Specification documents • User Documentation • Results of the research done during the project
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Target Audiences

It's been specified that the three main audiences of the website are:

1. Patients
2. Cancer Professionals
3. General Practitioners

Website Use Cases of the Different Audiences

The three main use cases are:

1. Patients - Directory of Services, Patient, Carers and Public section
2. Cancer Professionals - Pathway Boards
3. General Practitioners - GP Referral Forms

Website Functionality

The functionality of the website intends to be similar to the existing website while scrapping some of the out-of-date functionality that the website doesn't have.

The functionality of the website should both aim to help London Cancer achieve their goals as well as serve the website's target audiences.

One of the main changes to the website's functionality will be how the website's content administrators edit and add content using the backend Content Management System provided as part of the WordPress platform.

Homepage Content

The homepage should seek to provide a clear understanding of what London Cancer is and how it can provide and help its Target Audiences

- Clear navigation system
- About London Cancer
- Pathway boards
- Directory of services
- Patients, carers and public section
- GP referral forms
- News
- Events

We plan for the Pathway Boards, Directory of Services, Patients, Carers & Public Section, GP Referral Forms to be dynamic and easily editable by administrators.

Website Content Overview

An overview of each page's role and functionality, to be developed in client meetings.

Directory of Services:

User enters whether they are GP, Professional, or Patient, this is stored in DB and returns relevant services.

GP Referral Forms:

Directory of .Doc or .PDF files

Pathway Boards:

Brain and spine - Urological: Directory of .PDFs

Patient, Carers and Public section:

Lists of text, links and images with anchor points

Have all 4 of the above sections featured on the homepage as editable text summarisation.

News:

Utilises WordPress' blog functionality to allow multiple users to post news and updates

Events:

Utilises a WordPress plugin or if unsuitable we write our own, will need to style using London Cancer branding

Contact:

Full contact details including a map using Google's Maps Plugin.

Sitemap & Content

The sitemap below provides an overview of every page of the website that will be redeveloped

- Homepage
- About
 - What is *London Cancer*? (bit of history and how it fits with UCLPartners)
 - Our objectives
 - Where we work and our partners

- Our team
- Governance (something about the transitional board but this may not be appropriate post Jan 2016)
- Publications and reports (annual reviews and cancer strategy summit)
- Opportunities to work with us (includes patient volunteering opps)
- Our Work
 - Earlier diagnosis (what is this objective and why is it important?)
 - Camden Cancer
 - A&E audit
 - STT
 - MDC
 - Cancer Care review
 - Coding + safety netting (including QCancer)
 - Resources for patients (CRUK, Small C)
 - Patient experience (what is this objective and why is it important?)
 - Learning communities
 - CCG patient involvement project
 - Patient experience mapping
 - Resources for patients (support groups, NCPES Macmillan analysis, directory of services)
 - Whole pathway improvement (what is this objective and why is it important?)
 - Pathway boards (site specific, ERGs, living well + beyond)
 - Case study of BHURT lung pathway improvement
 - Embedding research (cancer networks, harmonisation, melanoma trials)
 - Stratified follow up
 - Recovery package
 - Metrics (not sure if CWT needs to be included)
 - Cancer reconfig (including improving specialist services)
 - Directory of services
 - Resources for patients (site-specific patient info, staging data from Macmillan, directory of services)
- News

- Events
- Contact

Umbraco to WordPress Migration

As highlighted in “Why is the website being redeveloped?” section the website is being moved from the Umbraco CMS to the WordPress CMS.

We plan on doing this by utilising the a Umbraco to WordPress export tool, that will keep URL structure intact. Alternatively we could manually transfer the content from the Umbraco into .html files to be used and parsed by the WordPress WYSIWYG editor.

Search Engine Optimisation

According to leading Search Engine Optimisation tool WooRank, [londoncancer.org](http://www.londoncancer.org) achieves a 56.5/100 score with a lower score due to reasons such a missing XML Sitemap and poor Mobile Friendliness:

<https://www.woorank.com/en/www/londoncancer.org>

A checklist will be applied to ensure that the redeveloped website follows the best SEO practices to ensure that the London Cancer website is future proof and maintains high search engine visibility.

There are many checklists out there held in high esteem such as:

<http://www.clickminded.com/seo-checklist/>

or:

<http://searchengineland.com/download/seotable/SearchEngineLand-Periodic-Table-of-SEO-2015.pdf>

Style & Layout

Overall Style & Branding

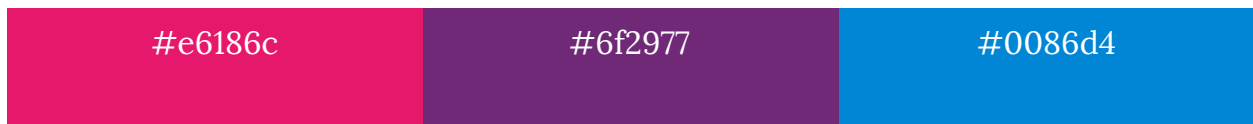
Used in conjunction with the Visual identity and brand guidelines sent by client.

Logo



The logo should not be used in a width of less than 30mm. The logo should not be cropped, changed colour, changed perspective or changed orientation.

Colour



Above is the main colours palette we seek to use.

Navigation

A common navigation bar will be included on all pages. The navigation bar will include links in a hierarchy and will adapt to different screen sizes.

The navigation bar will be developed after user testing.



Usability & Accessibility

This site must comply with the standards of accessibility contained in W3C WAI (World Wide Web Consortium Web Accessibility Initiative) level A Guidelines.

User Testing

The site should be usable and follow the best practices in Human Computer Interaction. Conducting user testing will help identify what users like and don't like about the existing site so we know what to implement/remove for the new website.

We also hope to implement user testing for both the Home page layout as well as the navigation bar.

Making the Website Accessible for Target Audiences

The age range of the target audiences can be ranging from as far as 18 - 85, for this reason, the website needs to be extremely accessible. There's a wide range of potential accessibility problems that are covered here:

<http://accessibility.oit.ncsu.edu/accessibleu/problems.html>

These include:

- Insufficient color contrast
- HTML fails validation
- No alternate text on informative images.

These accessibility problems will be avoided through smart design and implementation to achieve the goal of having a website where all of its functionality is able to be accessed and used by everyone.

Multi-Lingual Content

Some key content will have translated copy for Bengali, and smaller communities for many of which English is not their first language.

HCI focused accessibility

We will use the best and latest principals in Human-Computer Interaction across multiple devices to provide a focused and accessible approach which means that anyone will be able to access and use the website. We will set constraints of browser support as low as we can, hoping to support Internet Explorer 8.

Technical

Hosting

We will host the website on a local machine that is using Git version control during development. So it's important that we are using the same technology stack that our client's server uses. The webserver that we we will deploy the website is on a Debian server using PHP 5.4.45 and MySQL 5.5.44.

We will analyse these versions for security vulnerabilities. Furthermore, we will also ensure that these are versions that will receive long-term support.

Learning Resources

Since this will be our first time developing with WordPress we will be learning the technologies that underpin it. WordPress is developed in PHP & MySQL, two web technologies that underpin much of the World Wide Web.

To learn PHP and MySQL we are using:

- Learning PHP, MySQL, JavaScript, 4th Edition (Robin Nixon)



- PHP for Web Designers by David Power
<http://www.lynda.com/PHP-tutorials/PHP-Web-Designers/146234-2.html>
- PHP5 tutorial by W3Schools <http://www.w3schools.com/php/default.asp>

To learn WordPress development we are using Treehouse's popular WordPress Development course.

<https://teamtreehouse.com/tracks/wordpress-development>

Monitoring

Following our meeting on 3rd November we recommend using Pingdom. Pingdom is a service that allows website admins to receive notifications of website downtime.

Analytics

Following our meeting on 3rd November, we suggested Google Analytics to analyse website usage.

Security

We recommend the use of CloudFlare for its simple setup and valuable security features. It's also cost-effective as it has a generous free plan. There are also some WordPress plugins that are free that ensure a more secure experience.

Combined with secure setup of the database and strong passwords of admins, the website will be set up with a robust, secure foundation.

Page Speed

The current website is fairly slow, especially on low speed mobile networks. With an 11/100 score from Google's PageSpeed Insights on Mobile, we aim to redevelop the website with speed in mind, using Browser Caching, Image Optimisation and Minification of JavaScript and CSS assets.



<https://developers.google.com/speed/pagespeed/insights/>

Training

The website will be handed over to UCLH soon after the website is delivered. WordPress training videos will be chosen that are appropriate for those new to operating a CMS.

Documentation

The documentation will include:

- Copy of code
- Detailed development stack
- WordPress plug-ins
- WordPress theme
- How the responsive framework works
- Database Structure
- Additional 3rd Party Tools