ICCA BPTC – DIGITAL PLATFORM REQUIREMENTS

Analysis of Service Delivery Options

Summary of Recommendations

The ICCA should:

- Proceed with the procurement of WordPress or Drupal as the main college platform and principal presence on the Internet.
- Implement a Moodle Virtual Learning Environment (VLE) to provide the online components of the Bar Professional Training Course (BPTC) and any future ICCA online courses.
- Procure a hosting and technical support service for both platforms but create and manage all content on the systems with ICCA staff.
- Develop a digital brand identity and supporting guidelines to ensure a seamless experience for all users and which strengthens the identity of the college.
- Ensure processes and technical protocols are developed for the creation, storage, sharing and adaptation of digital content.

Background

The ICCA will require a strong digital presence to fulfil its vital roles as provider of continuing professional development to the practising Bar and to provide a BPTC, which consists of a blend of educational media and with elements delivered solely online. The needs of the college’s enrolled BPTC students and the occasional user of materials will be different, and the college will need to provide a range of digital options to meet the needs of its users, however it is essential each user has an experience which:

- is easily navigable;
- enables search and retrieval of the correct content;
- presents material to a variety of devices, including tablet and smartphone;
- consistently provides an interface which is coherently branded and seamless.

The ICCA was provided with a recommendation by Unthinkable Digital to replace the current college platform with a digital publishing platform optimised for the search and retrieval of
digital materials. It was also recognised that a learning platform would also be required to deliver a BPTC or other training materials which are organised in to courses and therefore will require a structured learning pathway and assessment.

The emerging requirement is for two platforms and supporting infrastructure, which is integrated through technology and underlying processes to provide an online experience to users which is as seamless as possible:

- A digital publishing platform – Optimised for the search and retrieval of current and future materials and will provide the college’s principal Internet presence.
- A digital learning platform – For the delivery of training materials which are structured as online courses and therefore will include multimedia and assessment elements. This will be password protected and will store achievement data as students proceed through courses.

The broad digital architecture required to deliver a “digital college” is shown at Annex A, which has previously been briefed to the ICCA Governors.

The digital publishing platforms recommended by Unthinkable Digital were WordPress or Drupal. Either of these platforms will meet all of the ICCA’s requirements and provide the interoperability required. Further market analysis is not required, and this decision remains correct to meet the college’s needs for supporting the practising Bar.

The BPTC project has been used to identify the digital learning platform and commercial approach required to ensure the ICCA has the capabilities to deliver a market-leading BPTC and provide a learning platform to meet the future needs of the college. The remainder of this paper will principally concentrate on this requirement.

Key User Requirements

The Systems Engineering\(^1\) principle of Requirements Analysis has been used to identify the platform needs of the BPTC. This process enables the development of a User Requirement Specification which is created when trying to determine specific needs to support a procurement. This process ensures a system is appropriate and does not deliver superfluous requirements, leading to unnecessary expenditure.

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\(^1\) Systems engineering is a field of engineering and engineering management that focuses on how to design and manage complex systems over their life cycles. Systems Engineering principles are typically used in analysing and defining requirements for software systems.
As the needs of the ICCA and its potential BPTC students have become clearer, the Project Team have identified those requirements of the college to manage and deliver the BPTC and those of the ‘End User’- the potential BPTC student accessing blended learning course materials either in a purely online course or as part of a blended course delivered in the Inns.

Requirements analysis identified Key User Requirements (the overarching need and minimum expectation). These were initially established in a workshop held in COIC on 23\textsuperscript{rd} October 2017 and have since been refined by key staff in the ICCA and through various meetings with vendors:

- The End User (the learner) will be able to access all learning content at anytime and anywhere via a device of their choosing.
- The ICCA will be able to manage enrolments, content and leaners through a single system.
- The ICCA requires the ability to create blended learning courses which incorporate a blend of media and can be accessed by the End User without the requirement for additional third-party software.
- The ICCA requires the ability to capture and manage data relating to End User (learner) performance and system usage.

User Requirements

The above Key User Requirements have been further analysed to develop a full set of User Requirements which identify the technical specification and service level required to successfully deliver the BPTC (and potential future ICCA courses). These User Requirements are shown at Annex B.

Market Analysis

The online learning systems market has grown significantly in recent years as the education sector has expanded to include industry and commercial training providers. Market reports do provide an insight into leading learning systems, their price and capabilities, however the market analysis for this project has been limited to those systems which are proven within Higher Education Institutions and provide the broad range of capabilities identified as essential in Annex B.

The following platform options have been considered for the delivery of the BPTC:

- Digital publishing platforms;
- Learning Management Systems (LMS);
• Virtual Learning Environments (VLE);
• Open Learning Platforms.

Recommended Option for the ICCA BPTC

As shown at Annex C, the low-risk implementation option for the ICCA BPTC is to procure a VLE. A VLE will offer the college the following advantages:

• There is a healthy pool of suitably qualified and experienced personnel working in London who can support the college with the design and development of content;
• Academic staff can easily author content;
• Analytics can be generated on learner progress and achievement;
• Proven to integrate with legal databases, student record systems, e-commerce systems, plagiarism software and webinar applications;
• Content can be migrated to another platform and service provider if necessary; and
• All likely academic partners for the ICCA BPTC use a VLE as their core learning platform.

Of the three VLEs considered by the ICCA, Moodle has been selected as the most flexible and cost-effective option and is therefore recommended as the learning software to deliver a platform capable of supporting the BPTC. It has the advantage that is an open-source software\(^2\) and therefore it can be designed to integrate in to the technical architecture shown at Annex A and provide the seamless user experience required alongside the core college platform.

Supplier Options

There are five authorised UK Moodle Partners. Of these, the ICCA is discussing the BPTC with two of these: LEO Learning and Synergy Learning. A test-bed platform has been procured from Synergy Learning to ensure the BPTC Course Design Team can commence the design of digital resources. It is this test platform which will be used to showcase the digital course materials which will form part of the BPTC course authorisation application to the BSB.

\(^2\) Open-source software is a type of computer software available with a license in which the copyright holder provides the rights to study, change, and distribute the software to anyone and for any purpose. Open-source educational software is developed in a collaborative public manner and evolves to meet the needs of learners and institutions. It is widely exploited in the UK Higher Education sector.
Proposals have been provided by Synergy Learning and LEO Learning for the ICCA’s VLE and this cost and service level will be included in the BPTC’s cost model and business case to the Inns. The required service will include:

- Secure hosting;
- Content security and back up;
- All design, set up and testing;
- Integration of all other necessary software under a single sign on;
- Technical support for all users including help desk;
- Management of software updates.

**Next Steps**

The technical architecture shown at Annex A, will be an essential step in professionalising the ICCA’s digital offering and work is underway to procure the new college platform and put in the essential processes to create and manage the college’s digital materials. If the Inns approve the COIC proposal for a BPTC, a new digital learning platform will be immediately required, and it will fit within this overall architecture.

The recommended Moodle platform will provide all of the capabilities required for the BPTC, but it will provide a platform which can deliver digital courses, manage assessments and record learner progress and achievement. This will be a vital capability for the college in the future to enhance its status as a digital college.

All necessary work is underway to develop the business case for the BPTC, and if approved the project will procure a Moodle VLE service in 2019. The first step will be the design and set up of the platform. To ensure that this is a seamless experience for the end user and conforms to the college’s brand identity, a need has been identified to build on the current ICCA brand guidelines and develop a set of digital brand guidelines which will inform the design of platforms and the digital content and resources to be developed in the future. This will be a pre-requisite to the procurement of all platforms and will be completed in the summer of 2018.

**Annexes**

A. The Future ICCA Digital Architecture.
B. The ICCA BPTC Learning Platform User Requirements.
C. The ICCA BPTC Learning Platform Options Analysis.
The Future ICCA Digital Architecture

- **ICCA Content Repository**
  - Common development process
  - Metadata rules
  - Mandated software tools and formats
  - Version control protocol

- **New Content**
  - Create

- **Legacy Content**
  - Adapt

- **3rd Party Content**
  - Integrate

**Phase 0**

**Phase 1** (The Main College Platform)
- ICCA Web Portal
  - (WordPress?)
- Publish

**Phase 2** (The College Learning Platform)
- BPTC Part 1 Web Content – Distance Learning
- Publish

**3rd party site** (Web content)
- Adapt
- Upload
- Search and retrieval
- Publish

**ICCA Web Portal**
- Publish
# The ICCA BPTC Learning Platform User Requirements

<table>
<thead>
<tr>
<th>1.</th>
<th>Service Requirement. The user requires a service that:</th>
<th>2.</th>
<th>Technical Requirement. The user requires the ability to:</th>
<th>3.</th>
<th>Service Level. The user requires the service to:</th>
<th>4.</th>
<th>Commercial. The user will:</th>
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<tbody>
<tr>
<td>1.1</td>
<td>Is fully managed to provide full hosting and tech support of a VLE</td>
<td>2.1</td>
<td>Create separate VLE instances or different functionality within the same software instance to provide 2 user interfaces (1 to support purely online and 1 to support blended)</td>
<td>3.1</td>
<td>Provide full system functionality between 24 hours a day, 365 days per year (unless planned outage applies)</td>
<td>4.1</td>
<td>Pay for a core service under a firm fixed price arrangement</td>
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<td>1.2</td>
<td>Supports the User in the design of the interface to incorporate the User’s corporate style guide and preferences</td>
<td>2.2</td>
<td>Manage users through hierarchical permissions</td>
<td>3.2</td>
<td>Ensure all planned system outage is between 2300-0600</td>
<td>4.2</td>
<td>Require the vendor to monitor and self-report on service levels</td>
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<tr>
<td>1.3</td>
<td>Provides appropriate training to the User’s design and admin staff and VLE Manager</td>
<td>2.3</td>
<td>Create, adapt and manage content from any end user device in accordance with permissions</td>
<td>3.3</td>
<td>Ensure all planned outage is to be less than 3 hours in duration</td>
<td>4.3</td>
<td>Have a % (TBN) of payment regime linked to performance</td>
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<tr>
<td>1.4</td>
<td>Enables access to consultancy services (under an agreed rate card) to support the design, development and management of VLE content</td>
<td>2.4</td>
<td>Access all functionality through latest browser versions (all standard) and operating systems</td>
<td>3.4</td>
<td>Ensure all planned outage is preceded by 28 days’ notice in writing</td>
<td>4.4</td>
<td>Require all required software releases to be integrated in to the service within the contract term</td>
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<tr>
<td>1.5</td>
<td>Provides a concept demonstrator platform by May 18</td>
<td>2.5</td>
<td>Maintain full functionality with mobile interface</td>
<td>3.5</td>
<td>Ensure there is no more than one planned outage per month</td>
<td>4.5</td>
<td>Require a performance review twice per year</td>
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<td>1.6</td>
<td>Provides a Beta platform by Feb 19 (20 users/10 concurrent)</td>
<td>2.6</td>
<td>Access via a native application on mobile devices</td>
<td>3.6</td>
<td>Integrate all software upgrades without disruption to the end user</td>
<td>4.6</td>
<td>Require a release clause relating to consistently poor contractor performance</td>
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<tr>
<td>1.7</td>
<td>Provides an initial platform by Nov 19 (full functionality/150 users/concurrency unknown)</td>
<td>2.7</td>
<td>Create full courses to incorporate modules, lessons, assessments, user-generated content</td>
<td>3.7</td>
<td>Provide helpdesk support for all system issues with response by next working day</td>
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<td>1.8</td>
<td>Provides a full platform by Nov 22 (full functionality/up to 800 users/concurrency unknown)</td>
<td>2.8</td>
<td>Play all content through embedded players to provide a seamless multimedia experience for the end user, to include video, audio (podcast), ppt and pdf as a minimum and enable download of files for use offline.</td>
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<td>1.9</td>
<td>Is secure, accessible via a password and offers all necessary encryption to protect user content and identity</td>
<td>2.9</td>
<td>Create question banks to support assessment in MCQ, short answer and drag and drop formats</td>
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<td></td>
<td>2.10</td>
<td>Incorporate plug-in for plagiarism software</td>
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<td>2.11</td>
<td>Access all necessary data on learner access and performance to include test scores, access, and 'time on task'</td>
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<td>2.12</td>
<td>Access reporting on all elements at 2.11</td>
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<td>2.13</td>
<td>Support courses with blog, discussion board, live chat, e-mail and webinar</td>
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<td>2.14</td>
<td>Enable collaborative working between students</td>
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<td>2.15</td>
<td>Access user file storage (limit TBN)</td>
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<td>2.16</td>
<td>Add additional course elements at short notice, to include user generated content, calendar entries, announcements, social media feeds and video</td>
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<td>2.17</td>
<td>Support students in creating a bespoke interface</td>
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<td>2.18</td>
<td>Assign a pathway for courses or enable students to move freely throughout a course</td>
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<tr>
<td>2.19</td>
<td>Create courses with dependencies and time-based/time-limited elements</td>
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<tr>
<td>2.20</td>
<td>Incorporate 3rd party databases (TBN) under single user sign on</td>
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<td>2.21</td>
<td>Incorporate a secure pay wall to enable course purchase</td>
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<tr>
<td>2.22</td>
<td>Is compliant with all accessibility legislation</td>
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</tbody>
</table>
# The ICCA BPTC Learning Platform Options Analysis

<table>
<thead>
<tr>
<th>System Type</th>
<th>Description</th>
<th>Systems Considered</th>
<th>Flexibility</th>
<th>Management</th>
<th>Pedagogy</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Publishing Platform</td>
<td>Platforms used to provide online access to printed (and some multimedia materials) and provide effective analytics to monitor user access to materials.</td>
<td>Oxford University Press; Thomson-Reuters; Pearson Publishing; WordPress; Drupal.</td>
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<td></td>
<td>Publishing platforms are optimised for the search and retrieval of digital content but lack the ability to aggregate digital resources into courses and assess learning and progress. <strong>Option dismissed.</strong></td>
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<tr>
<td>Commercial Learning Management System (LMS)</td>
<td>Secure online systems for the delivery of online learning courses, specifically aimed at the corporate market for the delivery of mandatory online training.</td>
<td>NetDimensions; Intuition (MobileFirst); SkillCast; Fuse Universal.</td>
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<td></td>
<td>LMS are designed for the delivery of shorter and more linear courses and consequently their adoption has been limited in Higher Education (HE). <strong>This option should not be pursued at present,</strong> it is recommended that the ICCA watches this market closely.</td>
</tr>
<tr>
<td>Virtual Learning Environment (VLE)</td>
<td>Flexible web-based systems for the delivery of learning materials to cohorts of students in educational institutions. They are designed to support both distance learning and to support traditional face to face learning.</td>
<td>Blackboard; Moodle; Canvas.</td>
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<td></td>
<td>VLEs are widespread in HE and therefore suitably qualified and experienced developers can be recruited. They are designed to have the flexibility to support online, distance and blended learning. <strong>This is the recommended option.</strong></td>
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<tr>
<td>Open Learning Platform (MOOC³-platform)</td>
<td>Provide free open access to ‘open’ course materials on the Web. These systems provide short university courses or course ‘tasters’. The platform provider offers a free service, but takes a fee, based on the volume of learners undertaking training.</td>
<td>Open Learn; Future Learn; EdX; Coursera.</td>
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<td></td>
<td>Course design is limited by the cohort-based, time-based model. There also commercial constraints which would limit flexibility. This is an immature and rapidly evolving market. <strong>This option should not be pursued at present,</strong> and it is recommended that the ICCA watches this market closely.</td>
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</tbody>
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³ A massive open online course (MOOC) is an online course aimed at unlimited participation and open access via the web. Typically, a MOOC is facilitated by an open-access digital platform where content is provided free of charge to the end-user and content is made available regardless of academic background or other eligibility criteria.
Selection criteria:

Flexibility – The ICCA requires a learning platform for the BPTC which can be designed to meet the unique requirements of the BPTC and can be evolved to respond to new concepts and respond to learner feedback. The system should not use proprietary formats for content and therefore it should enable migration (commercially and technically) to other platforms if the need arises.

Management – The ICCA requires the ability to manage the software in all aspects, either under a robust service level agreement within a contract, or by managing the software itself. It is therefore essential that individuals can be recruited with the skills and experience to design and manage content on the platform.

Pedagogy – The platform enables bespoke design for the delivery of lessons and the assessment of learning. It should also enable the full range of interactions required to support learners and learning.