



ob3

Beautiful Study for Lifelong Learning™

www.ob3.io

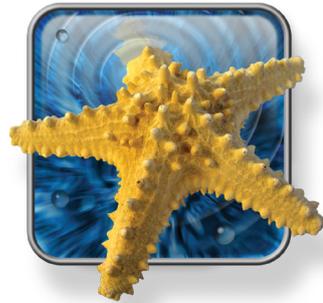
Rodney Tamblyn Co-founder

- Roles: GM, client management, sales, technology. OB3 product owner
- 25 years experience designing, developing and supporting educational technologies for Higher Education
- Educational software developer University of Otago (1990s)
- Alumni Emerge Education - London ('15)

Gloria Gomez (PhD) Co-founder

- Roles: strategy, research, design, marketing
- Creator of OB3 product design vision
- Assistant professor at the University of Southern Denmark (2012-17)
- Prior multidisciplinary software projects include working on Proyecto Ludomatica (1998 - 2001, Colombia) and the CmapTools project (2001-2003, USA)
- Honorary senior lecturer, Save Sight Institute, University of Sydney



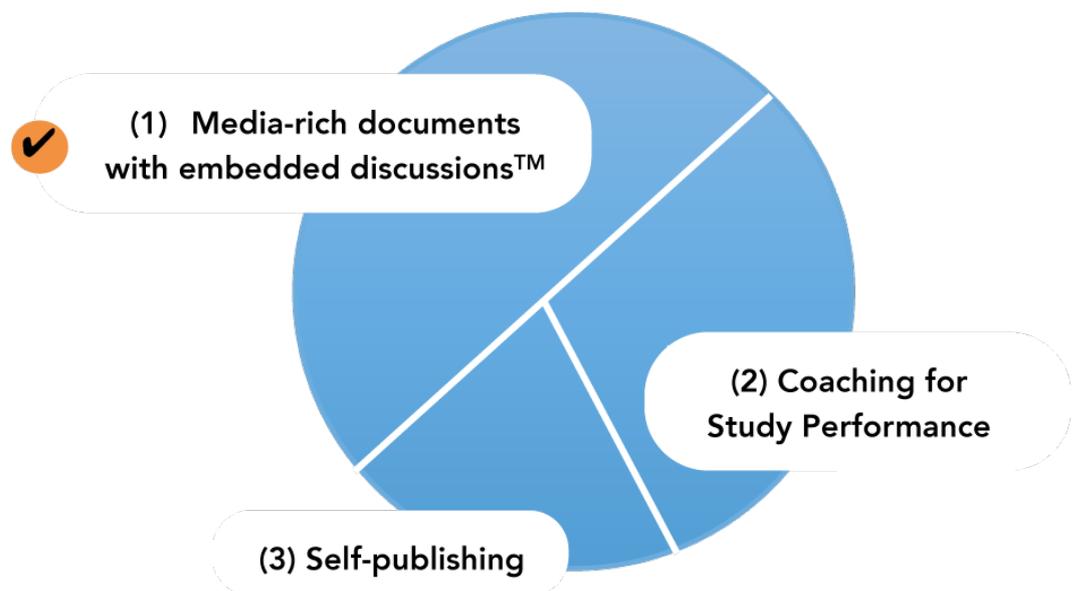


OceanBrowser Ltd.

About us

- New Zealand-based online learning company
- Virtual office working with like-minded people – local & remote
- Build rewarding long-term strategic partnerships with clients
- Designing and building an exciting and innovative product
- Genuinely caring that teachers and students succeed at achieving their goals using our technology

OB3 Product Vision 2021



2010

- We set out!
- Rapid prototyping with BDP approach
- Buy-in to vision from existing clients
- R&D investment Callaghan Innovation
- Research-informed long-term product plan
- 2012 OB3 released

Build the best platform for online academic study

2015

- OB3 version 2
- LMS Integration via LTI
- Collaborative learning & codesign activities
- Emerge Education Accelerator (London)

OB3: media-rich documents with embedded discussions™

2018

- Validated with customers (research publications, year on year use)
- New adoptions, diversifying uses
- Ongoing product development and refinement
- EduGrowth activities

OB3: Beautiful Study for Lifelong Learning™

2021

- Coaching for academic performance
- Lifelong learning
- Share your knowledge: web publishing
- Communities of practice

“What we find really powerful is that all aspects of the delivery and student engagement are seamlessly deployed within the same space which creates a very easy and enjoyable on-line classroom”

David Irwin PhD
Sustainable Practice,
ARA Institute of Canterbury

Drag and drop files from your computer

Upload video or embed media from online resources

Contribute to embedded discussions with text, video, and/or images

Record audio narrations

Create a personal annotation on content

Add discussions and comments when you find content

Contributions can take the form of text, video, pictures, etc.

Source: Gomez, G., Daellenbach, R., Davies, L., Kensington, M., & Petsoglou, C. (2018). OB3 media-rich documents with embedded discussions: lifting learning performance and engagement. Access in ResearchGate



OB3's innovations in interaction design

OB3 enables academic staff to prepare curriculum content and enhance student engagement using asynchronous discussions. It incorporates two innovations in interaction design. Students and academic staff can author media-rich documents, while only requiring basic technological skills. Secondly, it enables embedding discussions inside curriculum content.

OB3's innovations lift learning performance in 3 ways:

- **Removes the need for a technologist (e.g. course builder, multimedia consultant) when preparing media-rich documents**
- **Students engage in asynchronous discussions with teachers inside a document**
- **Students engage in authoring curriculum topics or reflective practice as part of assignments**

These innovations have enabled the development of online active learning communities and transformed students into co-designers of learning.

The R&D of OB3 focused in supporting activities in online academic study that relate to reviewing curriculum materials in varied formats or written assignments. This project was underpinned by a social interaction design methodology and the Bridging Design Prototype approach.

In 2009 qualitative research was undertaken with our then users (time-starved academics, distance students) about their issues studying online. Outcomes informed the development of guidelines and requirements that in turn informed feature conceptualization and design.

Data analysis drew theoretical concepts from sources including:

1. educational design that supports the efficient use of study skills that contribute to academic success;
2. good visual design that facilitates learning, is cognitively effective, and helps us manage our work and thought; and
3. networked learning in which information and communication technology (ICT) is used to promote connections between people

“Collaborative documents can be easily constructed in OB3 with each sentence identified as to the student and time this was posted. Edits within pages are seamlessly added. OB3 has enabled exceptional group projects from students and enhanced the quality of the academic outputs from each cohort.”

Dr Constantinos Petsoglou
 MBBS, MMED, FRANCO
 Senior Lecturer, Discipline of Clinical Ophthalmology, University of Sydney
 Visiting Senior Lecturer, Otago Medical School and UNSW Optometry School

06 Lasers: basic principles

INTRODUCTION

The term laser is an acronym for light amplification by stimulated emission of radiation, which outlines the events involved in the production of laser light. Essentially an energy source is utilized to excite atoms which are present in an active medium in either gas, solid or liquid forms to ultimately procure an emission of a particular wavelength of light. This light further amplified by a feedback system, which continuously reflects the light back and forth within the active medium, thus increasing coherence until the light is ultimately emitted as a laser beam. (1)

History

The birth of the theoretical concept of lasers was first discovered by Albert Einstein in 1916 when he published his paper stimulated emission. Unfortunately his progress was limited by the technology of his time. Based on his work, development followed in World War II by various scientists with applications into the "Manhattan Project" leading to the development of the nuclear bomb. In 1954 further development was made by Charles H. Townes and his colleagues who were awarded the Nobel Prize for their invention of the "Microwave Amplification by Stimulated Emission of Radiation", otherwise known as MASER. (2)

Gordon Gould proceeded to develop the theoretical idea of the LASER with experimentations in light emission with funding from the Pentagon. From this point onwards, various notable scientists with military funding developed working models such as the infrared, helium-neon, carbon monoxide, mercury-ion, and finally the argon-ion laser by William Bridge which paved the way for modern laser technology. (2)

Basic Sciences and Principles of Lasers

The ground or lowest energy state is when all atoms are most stable. A process known as "pumping" delivers energy to atoms within an active medium in the form of gas, liquids or solids. When an atom absorbs energy, its electrons are elevated from ground state to a higher energy level causing the gathering of excited atoms. It's termed population inversion when the balance of excited atoms outweigh those of a lower energy level (1, 3). Excited atoms are unstable and release light energy to enter a lower energy level before spontaneously reverting to its ground state as outlined in Figure 1. This light is incoherent, meaning that it travels in any direction (3).

Whilst atoms are at their higher energy state, stimulation by another photon which possess the same wavelength as what the original atom would emit would cause a resulting emission that is coherent with the stimulating photon. This is referred to as stimulated emission. The majority of energy released from atoms in the active medium are incoherent, however in cases of stimulated emission, there is a potential for amplification. Lasers are coined based on their active medium, which contain the atoms which have the potential to undergo stimulated emission as outlined above (3). Table 1 depicts some examples.

Molecular State	Active medium	Laser
Gas	Argon	Argon laser
☞	Krypton	Krypton laser
☞	Carbon dioxide	Carbon dioxide laser
☞	☞	☞
Liquid	Dye	Dye laser
☞	☞	☞
Solid	Neodymium supported by a yttrium aluminium garnet crystal	Nd-YAG laser

Table 1. Defining lasers based on their active medium (3, 4)

Capturing ideas on the go and emailing to an OB3 document in progress



The second category is known as "photodisruption", which can ionize the target and surrounding tissue. This can be applied surgically to the anterior segment of the eye and is exemplified by the Nd:YAG laser. The third category is referred to as "photoablation" utilizing high-powered ultraviolet laser pulses to alter the cornea. As these lasers are highly absorbed, they are often able to excise the submicron corneal layer without altering any adjacent tissue as there are minimal thermal effects. This is commonly utilized in refractive surgery. (1)

Suggested Links

There are some interesting and brief videos on laser that may assist in understanding the concepts.



Time-starved, fitting activities around life & work

Co-creating entries for an encyclopedic resource on Optics

The wiki pages on Optics are collaborative documents of student-created content. The lecturers provide the topic, the students do the rest. Students take ownership for the content of their assigned page. For the first 6-week period the student is responsible for developing content for their assigned wiki page. In the second 6-week period, we encourage collaboration where students contribute to each other's pages via discussions and co-writing. We initially found that online collaboration took a little bit of encouragement. We assess both the student's page content and their collaborative contributions. Completed pages can be accessed by future students and course alumni.

The goal is to have these wiki pages as a resource of the unit of study so students and alumni in the future can access them as an encyclopaedic resource, a kind of "Wikipedia", for the Optics topic. There is a lot of bad online content that is not specific to what students need for their career, or for their learning as a high-level subject course. This student-led project has addressed this issue.

Source: Gomez, G., Daellenbach, R., Kensington, M., Davies, L., & Petsoglou, C. (2017). Benefits of enabling lecturers and students to author, share and discuss media-rich documents for online study. Digital poster. ASCILITE 2017

1b. Respiratory Challenges in Pregnancy
Mary Henington, 2019, updated 2017.

Case Study

Respiratory Assessment
Case Study contd.
Cystic Fibrosis
Reading Activity
Case Study
Infections
Pneumonia
Case Study
Tuberculosis
References

1b. Respiratory Challenges in Pregnancy
1b. Updated 2017.

In this section the following respiratory diseases will be covered:

- Asthma
- Cystic Fibrosis
- Infections
- Pneumonia
- Tuberculosis

Asthma

Asthma is said to be the most common pre-existing medical disorder seen in pregnancy. It is a chronic inflammatory disease of the lung airways, characterised by episodes of recurring bronchospasm due to a number of stimuli. It is currently thought to affect up to 14% of women of childbearing age in the UK (NICE, 2017). It is a complex condition with aetiology and pathogenesis that are still unclear (NICE, 2017). It is a chronic condition with aetiology and pathogenesis that are still unclear (NICE, 2017).

It is important as a midwife to have a good understanding of asthma when you are providing maternity care for women this condition you will be supporting them appropriately and to diagnose and coordinate their medical care as required.

Some triggers for asthma are:

- Environmental factors: air pollution, pollen, dust, animal dander, mould, etc.
- Genetic factors: asthma often runs in families.
- Respiratory infections: such as the common cold, influenza, etc.

Fetal physiology

Asthma is said to be the most common pre-existing medical disorder seen in pregnancy. It is a chronic inflammatory disease of the lung airways, characterised by episodes of recurring bronchospasm due to a number of stimuli. It is currently thought to affect up to 14% of women of childbearing age in the UK (NICE, 2017). It is a complex condition with aetiology and pathogenesis that are still unclear (NICE, 2017).

- There is an increase in airway hyper-responsiveness in pregnancy due to the changes in the immune system and hormones.
- Multiple triggers for asthma are present in pregnancy such as pollen, dust, animal dander, mould, etc.
- It is important as a midwife to have a good understanding of asthma when you are providing maternity care for women this condition you will be supporting them appropriately and to diagnose and coordinate their medical care as required.

Reading Activity

Prevention of fetal breathing is not recommended as this will affect the fetus's ability to breathe. The fetus has a natural reflex to breathe and this is not affected by the use of a fetal breathing monitor. It is important as a midwife to have a good understanding of asthma when you are providing maternity care for women this condition you will be supporting them appropriately and to diagnose and coordinate their medical care as required.

The following is a useful link for your future practice: [The British Society of Maternal and Fetal Medicine \(BSMFM\) Guidelines on the Management of Asthma in Pregnancy](#)

References

- Collinson, C. & Henington, M. (2017). Asthma and cystic fibrosis in pregnancy. *Midwifery*, 53, 20-30.
- Collinson, C. & Henington, M. (2017). Challenges in pregnancy. Chapter 19. In *Textbook of Midwifery* (4th edn). London: Elsevier.
- NICE. (2017). *Asthma: diagnosis and management in primary care*. London: NICE.
- NICE. (2017). *Asthma: diagnosis and management in primary care*. London: NICE.
- NICE. (2017). *Asthma: diagnosis and management in primary care*. London: NICE.
- NICE. (2017). *Asthma: diagnosis and management in primary care*. London: NICE.
- NICE. (2017). *Asthma: diagnosis and management in primary care*. London: NICE.
- NICE. (2017). *Asthma: diagnosis and management in primary care*. London: NICE.
- NICE. (2017). *Asthma: diagnosis and management in primary care*. London: NICE.
- NICE. (2017). *Asthma: diagnosis and management in primary care*. London: NICE.

Case Study

Summer is 22 years and expecting her first baby. She books with you when she is 12 weeks pregnant. Summer tells you she has been asthmatic since she was a child and as a teenager she had a few bad attacks requiring admission to hospital. However since her twenties she has been well controlled. She uses an inhaler daily as a preventative measure and tries to keep in good health and not get too stressed as this can sometimes trigger an attack.

She asks you should she keep taking her medication as she has been feeling so well the last 12 weeks?

Q What questions will you want to ask Summer about her health in relation to the asthma?

EW July 29, 2017, 2:03 pm
What medication is she taking for her asthma, and does she smoke?

AM July 29, 2017, 3:34 pm
What work she does and physical activity?

CS July 30, 2017, 12:27 pm
Apart from stress, is she aware of any other triggers for her asthma?

AC July 30, 2017, 8:39 pm
Is she a smoker or exposed to someone else smoking?

AP July 31, 2017, 8:17 pm
I would ask if Summer has any other medical conditions and if she knows what her asthma triggers are and what medications she takes.

MA July 31, 2017, 5:04 pm
Good questions. Might you also want to know when her last admission to hospital was?

AM August 1, 2017, 2:39 pm
Anything else?

MA August 3, 2017, 2:39 pm
What medication she is actually taking - when did she last see her GP regarding asthma?

Reply Follow discussion

Q What advice would you give her in regards to her asthma and medication?

EW July 29, 2017, 2:03 pm
I would advise her that she needs to continue using her inhaler as the benefits of its use outweigh the risks to herself and her baby. If she has an asthma attack through not using her preventative inhaler, it may lead to maternal and fetal hypoxia and IUGR.

CS July 30, 2017, 12:29 pm
I'd advise Summer to visit her GP to discuss the best treatment plan for her asthma during pregnancy, but to continue to use her usual medication in the meantime.

AM July 30, 2017, 1:36 pm
I would agree with [redacted], advise GP visit as the guidelines suggest mild to moderate asthma is a primary referral.

NO July 30, 2017, 5:28 pm
I would advise Summer to continue with her preventative medication until she consults with her GP who prescribed her asthma medication. The GP may make a new plan.

MA July 30, 2017, 6:44 pm
I remember someone during our intensive recommending a spacer during pregnancy? Might have been Barbara during pharmacology? Would this be correct?

AP July 31, 2017, 9:22 am
I would advise her to keep taking her inhaler as previously but to go and talk to her GP about it as well.

MA July 31, 2017, 5:09 pm
Do you think you might want to talk with Summer's GP? Is this necessary?

Reply Follow discussion

Q What other methods could you add to give a more in-depth picture?

EW July 29, 2017, 2:03 pm
Monitor her oxygen saturation levels.

AM July 29, 2017, 3:33 pm
Medical history assessment, BP, baseline obs?

CS July 30, 2017, 12:26 pm
In terms of Summers assessment you could discuss her record of peak expiratory flow rates, if she keeps a record, and talk about the importance of discussing any changes with her GP.

AC July 30, 2017, 8:44 pm
refer to a specialist?

AP July 31, 2017, 8:47 am
oxygen saturation levels?

MA July 31, 2017, 5:09 pm
Yes find out what her PEF rate is and oxygen saturation is a good indicator. A doctor may consider taking the woman's arterial blood gases if she was quite respiratory compromised.

MA July 31, 2017, 5:11 pm
What does the Referral Guidelines say about referral for women with asthma?

MA July 31, 2017, 5:11 pm
Also do you all know how to use a Peak flow meter?

MA August 1, 2017, 4:03 pm
There's better quality videos, but this is basically how to use a peak flow meter

MA August 2, 2017, 4:05 pm
Referral guidelines state that mild to moderate asthma is a 'primary' referral. Severe asthma (continuous or near continuous oral steroids) requires referral for consultation.

MA Midliffery August 3, 2017, 9:05 pm
Thanks [redacted] for uploading the youtube video re peak flow meters. She provides a good explanation. Mary

Reply Follow discussion

- Document comprises topics, related cases for discussions, and references
- Each cases include questions to discuss
- Students use discussions to provide comments, share videos, links to documents, and upload documents (added via web or email)
- The conversation is moderated by the lecturers



“Students and lecturers have commented on how much they enjoy the commentary and the discussion in OB3. They work interactively and contribute ideas and materials that they have encountered by sharing urls and uploading materials themselves.

They speak of the value of having colleagues clarify things for them in a way that lecturers are not always able to do, at a peer level... the asynchronous discussion allows them time for reflection which encourages more engagement by students who feel put on the spot during synchronous sessions...”

Source: Daellenbach, D. R., Davies, L., Kensington, M., & Tamblyn, R. (2014). Fostering online student interaction using the OB3 web application for online study. ASCILITE 2014

Curriculum Content with Questions and Answers (Q&A)

The module “Respiratory Challenges in Pregnancy” (figure 7) provides an example of how curriculum content is structured in practice-based papers. It begins with a theoretical part in which there is description of the physiology of the respiratory system and pathophysiology and applies this to particular conditions that are common in pregnant women, such as asthma. This is then followed by a case study with Q&A to prompt students to connect theory and practice. A case study approach focuses attention on the lived experience for women

and the implications for the provision of midwifery care. The case study sets up a scenario and then there will be some questions asked. Often there is a story that might begin with a question related to antenatal care, and then go on to labour, birth and postnatal. Students can selectively respond and learn from each other. The lecturers (MK in figure 7) add further prompts and clarification. This is a similar structure to one that was utilised in the face-to-face lectures that preceded the introduction of the blended programme. In OB3 documents, the content utilises a range of media, such a video teaching materials that already exist, links to the latest professional

guidelines and research articles and other resources. For example, this module links back to Moodle to use a physiology quiz hosted there. In other modules we create Q&A where the students have to identify aspects from an article. In the one illustrated in figure 7, the Q&A are around the case study.

Source: Gomez, G., Daellenbach, R., Kensington, M., Davies, L., & Petsoglou, C. (2017). Benefits of enabling lecturers and students to author, share and discuss media-rich documents for online study. Digital poster. ASCILITE 2017



Save Sight Institute at the University of Sydney: a 15-year strategic partnership

We have a 15 year customer relationship with the SSI. OB3 is currently used across all the SSI's postgraduate courses. Their Master's in Basic Ophthalmic Sciences was evaluated as one of Sydney Faculty of Medicine's highest performing courses, with OB3 identified as component of this success. OB3 is also used in international courses, short-courses, and to build communities of practice (e.g. for doctors working in hospitals).

All University courses using OB3 are delivered integrated with Sydney University Canvas LMS (and previously

Blackboard) using LTI. We have developed some enhancements to support Canvas integration, including analytics and course development reports, and the ability to embed video content from OB3 directly within LMS pages.

At the undergraduate level, we developed a stand-alone web application (the Virtual Ophthalmic Studio) that all medical students at Sydney complete as a self-paced study activity. This functions on top of OB3 and is delivered integrated with the LMS.

Timeline

2005

Save Sight Institute and University of Otago Ophthalmology agree collaboratively distance deliver postgraduate basic ophthalmic science courses

2006

Initial course delivery (3 papers) on encrypted DVDs with OceanBrowser 1.0 software (Mac/Windows), web forums and VoIP conferencing

2008

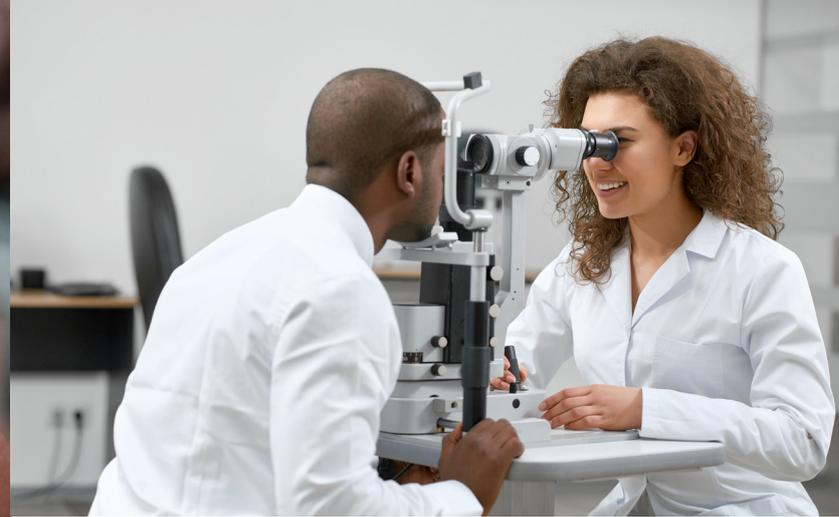
Oceanbrowser 2.0 software app (Mac/Windows) released. More papers added

2010

- Half day seminar at University of Sydney - OB+ SSI
- OB3 Design vision shared & discussed
- Increase license to support OB3 v1

2011

- Migration of SSI course content to OB3 v1 (beta)
- Testing and refinements
- OB DVD courseware phased out



“OB3 definitely outshines in the following areas:

- **Protection of the Intellectual Property... allowing us to encourage accessibility but reiterate the content is the lecturer’s intellectual property**
- **Provide life long access beyond the narrow confines of a degree course...allow students continued access to assist in their future careers and exam preparation**
- **Is a flexible platform that encourages students to share their work with colleagues. Secure sharing adds to the academic integrity of the services, and support for a wide variety of file formats encourages students to develop and share content**
- **Works within existing LMS This hybrid system has been running exceptionally well**

Strategic vision

- SSI vision: “education provider from cradle to grave”
- Build Community of Practice
- OB3 enabled collaborative delivery & teaching with University of Otago by coordinating activities on independent platform

Platform features

- Analytics for course review, providing evidence of efficacy
- Reports to simplify administrative and Canvas OB3 course authoring tasks

What they value

- Simplicity - straightforward intuitive design
- Integration with Canvas LMS
- Enable hospital, international, non-profit & short course offerings
- Alumni access

OB3 uses

- Enable co-creation & reuse of graduate student-generated content.
- Encyclopedic resources
- Journal clubs
- Video-based assignments
- Software development & support custom elearning projects

Oceanbrowser has provided us with innovative solutions to online learning problems. We are looking forward to continuing our collaboration for many years to come.”

Dr Constantinos Petsoglou
MBBS, MMED, FRANCO
Senior Lecturer, Discipline of Clinical Ophthalmology, University of Sydney
Visiting Senior Lecturer, Otago Medical School and UNSW Optometry School

2012

Courses go live in OB3 version 1

2015

- OB3 v2 go live, SSI migrates to new version
- Integration with Blackboard LMS

2016

- Completion of Virtual Ophthalmic Clinic app on OB3 goes live with Sydney 2nd year medical students

2017

- Implement and support ocular pathology image server
- OB3 enhancements & services: Canvas migration

2018

- Go live: OB3 “hybrid” delivery with Canvas
- Enhanced support level (maternity leave)

2019

Enhanced support level (new staff)



“The School of Midwifery has been using OB3 since 2013. The draw card of OB3 was the ability to have asynchronous contextual discussions within the online created content. OB3 provides the opportunity for students & lecturers to ‘co-create’ emergent understandings, discuss perspectives which are visually linked to the content that the discussion originates from and asynchronously follow discussion threads. It is easy to use and gives us a sense of how students are responding to the teaching materials.”

Mary Kensington
 Head of Midwifery
 Dept. Nursing, Midwifery & Allied Health
 ARA Institute of Canterbury

Timeline

2012

- Initially met at DEANZ conference where we presented a poster on OB3 v1 R&D
- ARA Midwifery had immediate need for solution as their existing platform was no longer supported

2013

- Initial pilot
- Successful migration of all content by ARA staff using OB3 media-rich authoring features

2014

ARA presented concise at ASCILITE 2014 describing benefits experienced in switching to OB3

2015

- Migrated all courses to OB3 version 2. Integration with ARA (Moodle) LMS
- ARA Enterprise pilot in 4 Departments. Outcome: OB3 recommended for use in courses using co-construction of learning

Ara Institute of Canterbury: 6-year customer

Bachelor of Midwifery

- Chosen to deliver the theoretical component of the programme in response to student evaluations of the previous technology platform, in which students consistently identified feeling isolated and unsure of how they were progressing with their learning
- Evaluations have shown students find OB3 discussions valuable for their learning, and also feel more connected to other students in their courses
- The interface was crisp, clear and unfettered and it felt intuitive and user friendly
- OB3 used in all degree papers + portfolio (from 2019)
- Integrated with the institution's Learning Management System. It is easy to control level of access rights students and lecturers have in terms of viewing, discussing, editing and authoring of documents

Source: Daellenbach, D. R., Davies, L., Kensington, M., & Tamblin, R. (2014). Fostering online student interaction using the OB3 web application for online study. ASCILITE 2014

Master of Sustainable Practice

- New qualification for future change makers and leaders
- Brings together teaching staff from across the institute to work collaboratively
- Using OB3 for in-class and online collaborative activities and discussions

“Staff can upload content and directions for engaging with learning. Students can make comments and interact with each other, challenge each other and support each other. They can upload their own work which can then be shared with other students in both synchronous and asynchronous spaces, and knowledge can be generated together. OB3 is a wonderful platform for postgraduate students and appears to be constructed with collaborative learning pedagogies in mind”

David Irwin PhD
Sustainable Practice,
ARA Institute of Canterbury

2016

ARA delivering all theoretical papers for 3 year degree using OB3 (integrated with LMS)

2018

Master of Sustainable Practice adopts OB3 for new degree offering

2019

- Midwifery portfolios shift from paper to OB3
- OB3 delivers new features to support portfolio use
- ARA shift from Departmental licensing to Enterprise reflecting that OB3 is becoming “widely adopted system” at ARA

2020

- Allied Health adopting OB3 for all postgraduate papers
- Expanded use in Midwifery and Sustainability due to growing enrolments and additional papers



Massey University's enterprise piloting

Customer since 2017

Helping Massey to fulfil its strategic Teaching and Learning vision to provide environments that are media-rich, interactive, forward-looking and supports active learning communities.



Executive MBA

Using OB3 for Reflective Practice Portfolios allowing students to capture thoughts in writing, make audio recordings, upload video, photos, documents, and keep it all in easy to manage, confidential web documents.



Clinical Pharmacology

Group-based activities comprising weekly discussion documents, with questions from textbook chapters. Students accessing OB3 from Stream (Moodle) LMS.

University of Otago

Customer since 2004

The University of Otago Ophthalmology Department was OceanBrowser's first customer in 2004 and have been with us ever since. Otago University Ophthalmology students use OB3 as part of their collaborative course delivery with the Save Sight Institute. We are currently planning a special project with Otago Ophthalmology, the Visual Pathways web app, which will be delivered on a similar model to the Virtual Ophthalmic Studio app. Initial phases are already completed (3D visualisation movies and content) and we hope the final project can be completed in 2020.



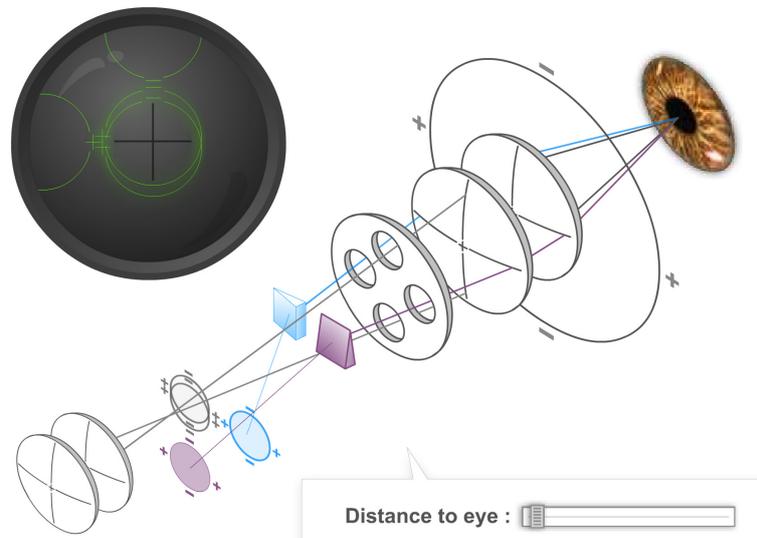
Tasmanian Eye Institute

Customer since 2018

The Institute has a mandate to develop educational resources for eye health for the public, medical students, doctors, and trainees entering Ophthalmology profession.

OB3 will be used for:

- Independent publishing of Ophthalmology textbook
- Ability to make editions for different audiences (nurses, students, doctors)
- Incorporation of study features to assist learning
- Ability to use within online education programmes (e.g. licensed to Universities) and within business (e.g. Ophthalmology practices)
- Build an online community of practice
- Incorporate rich media and discussions





Evaluating OB3 with the Creative Classroom (CCR) Framework

Using OB3 to author, share and discuss media-rich documents with embedded discussions (table 1), has facilitated our Otago-Sydney and ARA customers to adopt innovative practices across 6 CCR dimensions and 12 building blocks. The table on the right, column 1 lists the relevant practices and relates them to the customers' programmes in columns 2 and 3.

Creative Classrooms are conceptualised as innovative learning environments that fully embed the potential of ICT to innovate learning and teaching practices in formal, non-formal and informal settings. The CCR framework consists of 8 encompassing and interconnected key dimensions and a set of 28 reference parameters or building blocks.

Innovative pedagogical practices are found at the heart of the framework, which emerge when teachers use ICT in their efforts to organise newer and improved forms of open-ended, collaborative, and meaningful learning activities, rather than to enhance traditional pedagogies (Bocconi et al, 2012; Johnson et al., 2014).

Evaluating OB3 with the NMC Horizon Reports

The innovative study practices undertaken using OB3 media-rich documents with embedded discussions have facilitated our customers' programmes to follow educational technology trends and address challenges charted in the NMC Horizon Report series. See column 4 in the table (right) for details.

The NMC Horizon Report series charts the five-year impact of innovative practices and technologies for higher education across the globe. With more than 15 years of research and publications, the NMC Horizon Project can be regarded as education's longest-running exploration of emerging technology trends and uptake. Six key trends, six significant challenges, and six developments in educational technology profiled in the 2017 report are poised to impact teaching, learning, and creative inquiry in higher education (Adams Becker et al., 2017).

Source: Gomez, G., Daellenbach, R., Kensington, M., Davies, L., & Petsoglou, C. (2017). Benefits of enabling lecturers and students to author, share and discuss media-rich documents for online study. Digital poster presented at ASCILITE 2017

INNOVATIVE PEDAGOGICAL PRACTICES EMERGING WHILE USING OB3 FOR ONLINE STUDY			HOW OB3 ENABLED TRENDS AND HELPED ADDRESS CHALLENGES
DIMENSION AND RELEVANT BUILDING BLOCKS IN THE CCR FRAMEWORK	CASE 1: OTAGO-SYDNEY POSTGRADUATE PROGRAMME IN OPHTHALMIC BASIC SCIENCE	CASE 2: ARA UNDERGRADUATE PROGRAMME IN MIDWIFERY	
DIMENSION CONTENT AND CURRICULA: <ul style="list-style-type: none"> • Meaningful activities 	Lecture documents with embedded discussions created by students Wiki-style co-written documents created by students	Lecturers readily create content with minimal support	CHALLENGE: <ul style="list-style-type: none"> • Rethinking the roles of educators TREND: <ul style="list-style-type: none"> • Deeper learning approaches
DIMENSION ASSESSMENT: <ul style="list-style-type: none"> • Engaging assessment formats • Formative assessment 	Student-led online lecture development with multimedia content Clinically relevant assignments providing deeper learning objectives	Student-created content Using multimedia and existing online resources both for teaching each other and for assessments	TREND: <ul style="list-style-type: none"> • Rise of data-driven learning an assessment
DIMENSION LEARNING PRACTICES: <ul style="list-style-type: none"> • Self-regulated learning • Personalised learning • Peer to peer collaboration 	Projects such as wiki-pages, journal clubs, exemplar tasks, plagiarism interactive units being provided to encourage peer to peer collaborations within the semester	Students and lecturers “co-create” emergent understandings, discuss perspectives and asynchronously follow discussion threads Every student must create study materials, contribute to discussions in lectures, and lead group projects	CHALLENGES: <ul style="list-style-type: none"> • Students as co-designers of learning • Personalised learning TREND: <ul style="list-style-type: none"> • Collaborative learning
DIMENSION TEACHING PRACTICES: <ul style="list-style-type: none"> • Soft skills • Multiple learning styles • Multiples modes of thinking 	Graded content and assessment tasks allow for gradual upskilling of students over a 2-year course Asynchronous discussion within lectures encouraging online interactions	Asynchronous discussion allows students time for reflection, encouraging more engagement by students who feel put on the spot during synchronous or in face to-face sessions	CHALLENGES: <ul style="list-style-type: none"> • Improving digital literacy • Complex thinking and communication
DIMENSION CONNECTEDNESS: <ul style="list-style-type: none"> • Networking with real world • Learning events 	Communication with students as to timetable Provision of live lectures within programme Ability to monitor discussions and interactions easily with inbuilt notifications	Connectedness is promoted through the authoring, sharing and discussing of multi-media rich documents. It also addresses students’ experience of social isolation	TRENDS: <ul style="list-style-type: none"> • Rise of data-driven learning an assessment • Growing focus on measuring learning
DIMENSION INFRASTRUCTURE: <ul style="list-style-type: none"> • ICT infrastructure 	Incorporation of demonstration videos, documents and learning apps within the platform across both distance and face-to-face units of study	Theoretical component of the course taught online	TREND: <ul style="list-style-type: none"> • Blended learning designs

Piloting OB3 is an ideal way to explore the benefits that OB3 can bring to your organisation

We'll help you to plan your pilot OB3, drawing on our knowledge and experience working with other organisations, and ensuring you are fully supported throughout the initial exploration, planning, pilot delivery, and post-pilot assessment stages. **Our promise to you is that we will provide you with outstanding engagement and support.** We will do everything in our power to ensure you achieve a successful outcome from your piloting process.

Pilot services we offer include:

Onsite visits

Visiting provides an unparalleled opportunity for us to build a deep understanding your needs, focus intensively on your pilot, and establish professional connections with your staff that will continue online. Activities might include: meetings, training, presentations to diverse audiences (management, teachers, students), seminars, workshops, or participation in campus conferences. We are experienced working with audiences at all levels within Higher Education.

Pilot planning and kick-off activities

This will involve building an understanding of your priorities and challenges, agreeing on overall objectives for the pilot and how it will be managed, and finding the right courses for initial piloting. We'll assist you with online webinars and presentations, project management activities, 1:1 support and training (via chat, email, and online calls), meetings, and the creation/sharing of demonstration content in OB3.

Enhanced pilot engagement support service.

This support level enables us to work 1:1 with educational developers, course builders, teachers and tutors in a pilot course. Our highly experienced and qualified staff function as a virtual team, to plan and support OB3 activities around the specific needs of your pilot.

Review and reporting service

This provides monitoring, analysis of your use of OB3, both during and at the conclusion of your pilot. Reporting will include summaries of analytics data, analysis of your use of OB3, and recommendations for future course delivery.

Research services

Examples include collaborating with academic staff at your organisation on the preparation of journal articles or conference papers. More strategically focused longer term research collaborations may involve grant writing, and seeking co-funding from external investment sources, with outputs feeding back into technology innovation.

Development services

Perhaps your pilot would benefit from prioritized development of a new feature, or there may be a technical or organizational requirement at your end that requires development services. We'll identify these needs in the pilot planning stage, and whatever the challenge we're here to help.

Pilot (year 1)

- Initial engagement
- Pilot planning and kickoff activities – what does good look like? Identify risks. Identify internal project owner
- Project management – track and report progress
- Enhanced Pilot engagement service
- Review and Reporting services
- Onsite visits (1-2)

Post-pilot engagement (year 2)

- Apply outcomes from pilot
- Ongoing use in pilot courses, onboard additional new courses
- Capacity building and dissemination activities with T&L staff
- Research, initial discussions and planning
- Onsite visit (1-2)

Adoption and enterprise (year 3+)

- Clarity on both sides around goals and expectations
- Innovation and strategy. Identify projects, advance tactics
- Research. Support your researchers around OB3 outputs
- Client-relationship-management: opportunity planning, technology roadmap and alignment to your needs
- Onsite visit (1-2)





**OB3 can help
your institution
to differentiate,
grow and improve
your course
offerings to local
and international
students**

Active learning benefits according to our customers

Approaches

- Flipped classroom
- Blended learning models
- Deep learning
- Co-creation of understandings
- Co-construction of learning
- Work integrated learning / knowledge in action
- Online learning communities

Types

- Peer to peer collaboration (+)
- Personalised learning

Applications

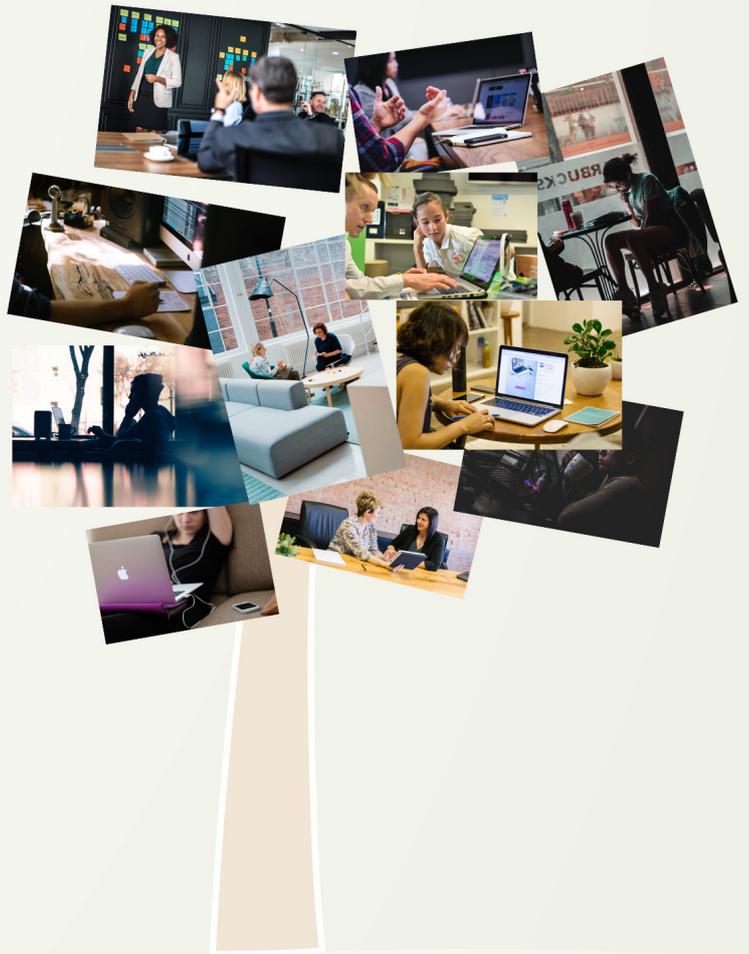
- Reflective practice
- Documenting and discussing practice experience
- Portfolio development for professional certification
- Conventional lecture documents
- Curriculum content with Q&A
- Wiki pages
- Journal club discussions
- Interdisciplinary projects
- Organise work in groups

The OB3 Difference

- An elegant and powerful editor for creating media-rich study documents, which only requires users to have basic digital skills
- Discussions created in context within content
- Learners and teachers co-create meaningful independent and collaborative study activities
- Alumni access
- Novel technical design for content: pages are constructed from many individual elements of content – allows development of innovative features in areas such as study summarisation, content management, and reporting workflows
- Personalised support for learner based on their activity through in-app and email notifications
- Integrate with enterprise systems with objective to avoid duplicating existing systems and “do best what the LMS does worst”
- Strategic partnerships – building on the strong relationships we have established and sustained over many years with our Higher Education clients.
- Adoption pathway – reference-ability includes case studies of long term adoption in contrasting programmes, conference presentations, and publications
- Highly experienced and capable founding team with decades of experience in Higher Education spanning technology, teaching, research, design, product development and innovation



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