POWER TO THE PUPIL

Launched officially in 2011, the iLearn e-learning platform is pushing ophthalmic education into new territory, with ESCRS members the direct beneficiaries

by Dermot McGrath

“Education is not the filling of a pail, but the lighting of a fire.”
– William Butler Yeats.

The explosion of information technology in the past decade has created new opportunities and tools to assist trainees in the learning process. With the advent of widespread high-speed Internet access, sophisticated multimedia content and a generation of “always connected” end users, today’s medical educators have the technical means to try exciting new approaches to educating the physicians of tomorrow.

In crafting its own e-learning platform, iLearn, over the past three years, the ESCRS has sought to meet head on the challenge of creating interactive and engaging learning programmes for its members. By allowing ESCRS members free access to learning material in a flexible manner to suit their own schedule and pace of learning, iLearn seeks to meet the growing demand for learner-driven education that liberates learning from the traditional classroom environment.

“The idea behind iLearn was essentially to provide an online space where ESCRS members could learn, share and develop their knowledge of cataract and refractive surgery from fundamental concepts to advanced skills using assessed, accredited and self-reflective activities and resources,” said Paul Rosen FRCs, FRCOphth, past-president of the ESCRS and member of the Education Committee.

In order to attain that goal, the ESCRS hired a team of instructional designers led by Brendan Strong who have worked intensely over the past three years to bring that vision to fruition.

“The development of ESCRS iLearn has been the greatest challenge of my career, and the project of which I am most proud. Working with society opinion leaders and learners has been very rewarding,” Mr Strong told EuroTimes.

He noted that the original goal was to provide learners with highly interactive, assessed and accredited content that they could use in their own time to complement their own learning.

“We wanted to create something more than simple recorded presentations and surgical videos, although surgical videos are included. The purpose was – and still is – to get learners involved and engaged,” he added.

Active engagement

It is this process of active engagement which goes to the heart of the e-learning process and is one of the undoubted strengths of the iLearn approach compared to traditional instructor-driven learning.

“If you are passively reading or watching, you don’t know how much you are learning as you go along and you don’t really know whether you have fully understood everything,” explained Mr Strong. “We wanted to fix that by encouraging a more active mode of learning, by asking questions to help learners construct the knowledge in their own minds. This helps them to better understand and master the information they are learning. We also provide plenty of assessment opportunities and feedback. Not only does this help learning for understanding, but learners can reflect on what they learned and how much they have understood. Then they know whether they need to go back over a course – which they are free to do,” he said.

Mr Strong paid tribute to the ESCRS Education Committee and leading ophthalmic surgeons who devoted considerable time and energy to ensuring that the iLearn content is accurate and complete.

“ESCRs iLearn would not be what it is today without the interest and great efforts of the Education Committee and all the subject matter experts. Everyone involved has played an important part in developing content that provides the best learning experience for members. Of particular note, Drs Oliver Findl and Paul Rosen helped us to develop the approach, while the leaders of the courses currently available – Drs Jose Güell, Dan Epstein, Paul Rosen, Richard Packard, Marie-Jose Tassignon and Khiun Tjia – have been tireless in their support and advice both with developing content to suit ESCRS members and to ensure that we achieve the best outcomes for learners. Their input has also been invaluable in ensuring we achieve accreditation for the content we have created,” he said.

Sharing expertise

“If you are planning for a year, sow rice; if you are planning for a decade, plant trees; if you are planning for a lifetime, educate people,” – Chinese proverb.

For the surgeons who volunteered to share their expertise for the benefit of their colleagues, getting involved in iLearn was, for many, a natural evolution both from their longstanding involvement with the ESCRS and their personal and longstanding interest in ophthalmic education.

“I was enthusiastic to get involved from the beginning because ophthalmic education is a topic that is very close to my heart,” said Jose Güell MD, past-president of the ESCRS and current chair of the society’s Education Committee.

“When we discussed the proposal some years ago, my immediate answer was ‘yes’ because I felt that it was the way to go, even though at that time it was not so clear-cut that the Internet was going to be a platform that would be suited to teaching in ophthalmology. But when we saw what could be created in terms of interactivity, high-quality video of surgery and so forth, then we realised that we had indeed the potential to develop a really good platform that would be a very useful asset to our members,” he said.

Dr Güell said that the real challenge was to tailor the content and courses to an online audience.

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Khiun Tjia MD
“Thanks to Brendan Strong and his team we realised quite early on in the project that we were able to achieve things that we originally had not thought possible. For instance, the ability to make small segmented video clips with clear explanations, followed by questions and then moving onto another segment. With the technology and bandwidth now available we were able to move beyond static presentations and present content in a lively, dynamic and interesting way. That was very gratifying to see in action,” he said.

Indeed, it is this ability to actively engage the learner from the moment they log on to an iLearn course which really takes the educational process to a whole new level, believes Khiun Tjia MD, who was responsible for the Basic Phacoemulsification Instructional Course.

“I believe iLearn is a tremendous adjunct for surgeons in the learning process of improving insight and skills. It adds an entire new dimension to teaching. In the ‘live’ instructional course, information for the attendee is passive. iLearn, by contrast, is highly interactive and assesses understanding of newly acquired knowledge at every step. The two formats complement each other in a very efficient way. The addition of the iLearn tool has created a superior level of teaching,” he said.

For Daniel Epstein MD, PhD who put together the Surface Ablation Techniques Course and also the Refractive Surgery Didactic Course in conjunction with Jose Guell, iLearn represented the perfect opportunity to extend a long association of ophthalmic education with the ESCRS.

“I had been involved in the design and implementation of the very first ESCRS didactic course, which was a traditional lecture course, so taking that onto an e-learning platform seemed to be the next logical step. Potentially this is a very important development for ESCRS members because the society is a service organisation, and one of its key functions is to provide teaching. iLearn expands on this role with an innovative approach,” he said.

### Ease of access

“Education is the most powerful weapon which you can use to change the world.” – Nelson Mandela.

Prof Epstein noted that moving a traditional didactic course from a lecture-hall environment to an online setting requires a lot more than simply re-purposing the material for a new presentation format.

“It is more time-consuming than one imagines it will be. You need to look at the material in a completely new light. In a traditional classroom environment there is direct interaction from the students and topics can be explained in greater detail or repeated if necessary. Naturally this is not possible in the online environment so we have to anticipate in the didactic format if things are not clear or what potential problems the learners might experience. This is not obvious, so you have to make sure everything is as simple and clear as possible to avoid any possibility of ambiguity or misunderstanding,” he said.

Ease of access also makes iLearn a particularly attractive service for younger members who may not have the time or the means to travel to the society’s meetings twice a year, points out Oliver Findl MD.

“iLearn is obviously a useful way to reach out to some of the younger ophthalmologists who cannot afford to attend the meetings because of the cost of travel and hotels. But even for those who attended a particular meeting or took part in a course, iLearn is an excellent way of recappping what they have learnt. We all forget details and nuances after one or two years so it is a very good tool to keep reviving your knowledge, even if you have gone through all the live didactic courses,” he said.

While younger ophthalmologists are prone to be more tech-savy than older colleagues, and thus more at ease with the e-learning concept, experienced surgeons will also derive benefit from using iLearn, said Dr Findl.

“While the first courses that were put on iLearn such as the Refractive Surgery Didactic Course, the Cataract Surgery Didactic Course and the Workshop on Visual Optics were perhaps more suited to the younger ophthalmologist, that trend is changing as the platform matures and more content is added. I believe that there is great potential in the near future to develop iLearn into more specialised areas which are of interest to more experienced surgeons,” he said.

While acknowledging that residents and younger ophthalmologists are probably most likely to use iLearn in the initial stages, Dr Tjia said that ophthalmologists of all experience levels could benefit from the iLearn methodology.

“While not all instructional courses will appeal to everybody, the beauty of iLearn is that every member can pick the time, topic and location for taking a course. Even after one has completed the iLearn course, users may find the traditional course even more interesting to attend,” he said.

Adapting the content to different target audiences holds the key to broadening the appeal of iLearn, believes Marie-Jose Tassignon MD, PhD, FEBO, past-president of the ESCRS, who runs the Visual Optics course along with Ioannis Pallikaris MD.

“The level of education of e-learning should be organised for different levels of difficulty: the basic level for the trainees, more difficult level for the fellowship ophthalmologists who would like to become subspecialists and the level necessary for continuous medical education. This would cover a large part of the ESCRS attendees at the major meetings. In future also ophthalmic nurses and technician programmes can be taken into consideration,” she said.

Another key challenge facing any e-learning platform is ensuring the content keeps pace with changing developments in surgical techniques, therapies and technologies, said Dr Findl. “Updating the information on a regular basis is obviously important because we are working in a rapidly changing field of medicine. iLearn has been designed to take account of changes in practice and the content will be updated regularly,” he said.

### Updating content

“Anyone who stops learning is old, whether at 20 or 80. Anyone who keeps learning stays young.” – Henry Ford.

Dr Güell agreed that being able to update content on a regular basis is one of the advantages of an e-learning system.

“This is not like an academ book series where the content is changed only every six or eight years. The capacity to update the platform and content really quickly is a large part of its appeal because it makes the platform adaptable to real changes that are occurring in ophthalmic practices,” he said.

With more content and courses now coming on stream, one of the key tasks is to take stock of how iLearn has been received by the very ESCRS members it was designed to serve, believes Prof Epstein.
We have many exciting plans for the future, and hope to see courses available on iPad later this year, as well as greater use of forums, which will help to bring iLearn to the next level where discussion helps to further develop understanding. In the meantime, we will be working with the subject matter experts to revise the existing courses to bring them up to date with the latest advancements in cataract and refractive surgery, as well as working on some new courses,” he said.

Mr Strong also insists that the team should never lose sight of the original goal of the iLearn project – empowering the learner.

“The key to our success is the learner. We hope everyone finds the ESCRS iLearn platform useful – and if they don’t, we hope they tell us why. So far, the feedback has been positive. We want to ensure everything we do is driven by our learners, so that what we create is relevant and useful to them. So feedback and contact is vital, and we welcome it.”

For Mr Strong and his team, there is no question of allowing the momentum behind iLearn to slacken in the months ahead.

“This is the ideal time to evaluate, to see how many hits the site is getting and how well the learners have done on the inbuilt tests. We can then look at the results and see if the enormous work that has been done is having the impact that we hoped it would. We need feedback and evaluation for this and this is an important part of any new development,” he said.

The learners’ viewpoint

Dessislava Stateva MD, PhD, associate professor, University Hospital in Pleven, Bulgaria. Research interests include phacoemulsification, keratoplasty, epidemiology of low vision and blindness. Subspecialty area – anterior segment surgery.

“My reasons for using iLearn were to learn more about different aspects of cataract and refractive surgery. I took courses in Clinical Cornea - Diagnostic Methods, Advanced Phaco Techniques, Fundamentals of Cataract Surgery and Premium Lenses. The content of the courses was very informative. iLearn was very easy to use and working with it was an entirely positive experience.

I decided to use iLearn out of curiosity and a desire to acquire new knowledge. It is also a good way to validate existing knowledge. I took the Cornea Didactic Course and I am very pleased with what I learned. While projects such as iLearn can improve my knowledge and experience, I believe that it takes constant work and hands-on experience for me to be a better ophthalmologist.

I used iLearn to complement and enhance my knowledge in refractive surgery, as I started this subspecialty following the acquisition of an iLASIK platform. I studied all the refractive surgery courses offered and found the content fairly consistent with some elements needing to be updated. This tool is very important for all ESCRS members, with access on demand and interesting content. Overall it is a rewarding experience. A possible improvement in the future might be more interactivity. I would have liked the possibility of online discussion with trainers, and the possibility of asking direct questions or to discuss a particular case in more detail.

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Eye on design

A well-designed office pays dividends in improved productivity and patient experience for years to come. An experienced architect can help ophthalmologists create a workspace that saves time, increases patient throughput and is convenient and relaxing for patients and staff alike.

Our June Cover Story will focus on what ophthalmologists should consider and prepare before designing a new office space, such as type of work, volume, physician and staff efficiency, and finishes and design appropriate to target patient populations.

It will also discuss how doctors and staff can work with architects and space designers to determine their own needs and come up with spaces that meet them efficiently.

How office layout can improve staff efficiency by reducing unnecessary steps between tasks, and how matching building design and materials to function can improve return on facility investments, will also be presented.

Tips for identifying and choosing an architect or design firm with appropriate experience and expertise in medical offices and facilities will be included as a sidebar.