Masterclass 2: Energy saving by design
Why workplace lighting isn’t working
If there is one thing that can be relied on at any lighting event it’s that it will be a convivial gathering of familiar faces. Which is both pleasant and useful, but as we’re also very fond of pointing out, we spend a lot of time talking to each other and, by definition, preaching to the converted.

The latest LIF seminar in Westminster towards the end of last year was a classic case in point. It was well attended, the sessions were bursting with useful information on everything from Part L to LEDs and presented by informative and entertaining speakers. One of them actually asked the audience if there was anyone present who wasn’t a member of the lighting industry. One hand went up. Given that part of the discussion centred on how many good lighting intentions were scuppered by installers, it was hard not to regret that members of the ECA for one had not been party to the event.

It works the other way round too. When people consistently talk the same language it is harder to conceptualise new ideas and approaches. To hear the intelligent and informed viewpoint of someone outside the fraternity is usually invigorating. Having witnessed the RSA presentation where Claudia Dutson discussed her two-year research project into workplace lighting I recall thinking at the time how refreshing it was to hear an outsider’s perspective. We offer just a glimpse of her thinking in this issue (Too bright for words, p8). Perhaps inveterate tweeter Stephen Lisk is right and there will be greater scope for inter-disciplinary discussion as we get further to grips with social networking (Facebook the facts, p10).

Jill Entwistle
jentwistle@cibse.org

Once again up to 15 teams are invited to take part in Ready Steady Light, competing to design an exterior lighting scheme in just 180 minutes with the range of lighting equipment available. Again this year the stipulation is that the site should be lit in its natural state without the use of props borrowed from around the environs. There are likely to be more applications for teams than can be accommodated so entries are restricted to one team per organisation. We would also like to encourage team organisers to include first-timers to the event in their teams. Each team must be led by an SLL member.

Judging will be in three categories:

- Most Creative Effect (based on the natural features of the site and the theme). Judged by expert panel.
- Best Technical Solution (taking into account energy use, light pollution, and health and safety). Judged by expert panel.
- Peer Prize
  Judged by other contestants.

The cost of entry is £150 per team. Please contact Julie Kane (jkane@cibse.org) for an entry form.

I would like to start by saying what a tremendous Young Lighter of the Year final we had at the Arc exhibition at the BDC. The competition really does go from strength to strength each year. It’s a testament to the status that it now holds that so many potential future employers were in the audience to watch this year’s emerging talent. I think everyone agreed that it was good to be back at the BDC, the spiritual home of the show and the buzz created this year was much better than the past two years, despite the earlier January date.

This month we shift our attention to two more showcase society events. The annual Ready Steady Light competition is being held on 16 March and there is still time to book your team place. This year we are very privileged that the event will be preceded by a free seminar by Durham Marenghi on the subject of Stadia for Theatre for HDTV. Marenghi is a leading events lighting designer, lighting the annual Classical Spectacular at the Royal Albert Hall, and he was also shortlisted for the 2012 London Olympics Opening Ceremony.

The other highlight this month is the first London event of this year which takes place the evening before Ready Steady Light on 15 March at the Chamber of British Shipping. The session focuses on daylight design and whether the increasing use of artificial lighting to simulate daylight is really good for our health. Arfon Davies of Arup Lighting headlines the event. It’s free to attend but prior registration is essential. For those of you who attended the events last year on Energy in Lighting and on the Future of Street Lighting, I hope you’ll all agree that our new format is proving a huge success with both events fully booked.

The society has made a number of changes to its membership grades in recent months. Until now, when anyone applied to join the society, they did so as an SLL associate. To differentiate more clearly between this and the associate member grade, the SLL associate grade has been replaced with SLL affiliate. We have also transferred the founder members to affiliates. Emails have been sent to all members that this applies to, but rest assured that there are no changes to the benefits you receive. It may be an ideal time, however, to consider transferring your membership to a higher corporate grade – transfer forms can be downloaded from the website (see below).

The last change we have made is to give greater recognition to our first corporate grade, that of associate member. Associate members may now use the designatory letters AMSLL after their name on business cards and so on. Finally, there is still time to get along to one of the Masterclasses: this month we are in Edinburgh, April in Dublin and then in London in May. Places are filling up fast so make sure you don’t miss out. This series has been excellent and the topic of the low carbon challenge is proving a massive hit. You can book online (www.sll.org.uk).

Liz peck
lpeck@cibse.org

Based on his 2011 Masterclass presentation, Tad Trylski argues that energy efficiency has to start from a qualitative approach.

Iain Carlile distills the latest research from LR&T.

Claudia Dutson challenges thinking on workplace lighting.

Stephen Lisk on why Facebook is the face of the future – including for the SLL.

Open to ideas: a sophisticated sustainable solution to reinforce KPMG’s ‘transparent’ image.
Young Lighter gets double award

Christopher Knowlton, a senior lighting designer with architectural and interior practice Design International, scooped this year’s Young Lighter of the Year award. Knowlton pulled off a double by also winning the prize for the best-written paper presented by the ILP.

His paper – User-Controlled Environments within Intelligent Architectural Spaces – examined the idea of using devices such as an iPhone to enable individual control of lighting in the workplace.

‘I am really pleased to have been given the chance to showcase my research to so many leading people from the lighting industry,’ said Knowlton (pictured right with SLL president Alan Tulia). ‘Technology is being woven into the very fabric of the spaces in which we live, work and play and is opening new possibilities for the way in which we communicate with the world and environment around us.’

The prize for best presentation, given by the Worshipful Company of Lightmongers, went to Kerem Asfuroglu for his paper on the use of water as a form of daylight control.

The five finalists battled it out in front of a packed audience at the Arc Show in January. Entries came from across the world and this year’s final included competitors from Greece, Turkey and the Republic of Ireland.

EA issues a WEEE bit of advice

The Environment Agency (EA) has issued guidance on the electrical and electronic items that now fall within the scope of the Waste Electrical and Electronic Equipment (WEEE) regulations. These include ballasts, photoelectric cells and igniters, street and traffic lights.

‘Since the introduction of the directive it has become clear that the classification of a number of items is unclear under certain circumstances,’ said Lumicon chief executive Ernest Magog. ‘This guidance clarifies responsibilities and ensures that WEEE is dealt with through the appropriate routes with minimum environmental impact.’

In the case of ballasts, photoelectric cells and igniters that are used within household applications may be used in non-household contexts, such as in hotel rooms or restaurants.

In order to support a claim that this ‘domestic’ lighting is in fact non-household, a producer will need to provide evidence to that effect. Where lighting products are concerned this will generally be in the form of a contract between the producer and a business user/reseller.

For more information go to info@lumicon.co.uk

News in brief

The International Association of Lighting Designers (IALD) and the Institution of Lighting Professionals (ILP) have signed a Memorandum of Understanding. The two organisations have agreed to work cooperatively ‘toward developing the architectural lighting design profession and elevating awareness of quality lighting’.

The LIF will be holding its 2011 Drivers of Change in Lighting regional seminar programme in London, Birmingham, Leeds and Edinburgh on 28, 29, 30 and 31 March respectively. Free-of-charge, the morning sessions are open to all those interested in commercial lighting applications and products. The programme will focus on the latest legislation/standardisation, developments in LEDs/OLEDs, and lighting controls and systems (with particular emphasis on energy saving). To register, visit www.lif.co.uk (see 2011 Regional Seminar Programme) or email info@lif.co.uk

On the lighter side...

We know about pollution and we know about light pollution, but now it seems we have to worry about one exacerbating the other, according to a recent BBC report. Research by US scientists indicates that the glare thrown up into the sky interferes with chemical reactions that would normally help clean the air during the night of fumes emitted during the day. A form of nitrogen oxide, called the nitrate radical, breaks down chemicals that would otherwise go on to form urban smog and ozone. This cleansing normally occurs in the hours of darkness because the radical is destroyed by sunlight. New measurements taken over Los Angeles suggest that the energy from night-time illumination there is also suppressing the radical. The lights may be 10,000 times dimmer than the sun, but the effect is apparently still significant: City lights can slow down the night-time cleansing by up to seven per cent and also increase the starting chemicals for ozone pollution the next day by up to five per cent,’ said Harald Stark of the US National Oceanic and Atmospheric Administration (Noaa).
To risk stating the obvious, a luminaire is at its most energy efficient when it’s switched off, and all the more so if it’s not even there in the first place. The lighting equivalent, perhaps, of the tree that falls in the forest – if you didn’t install it, has it saved you any energy?

The intuitive answer is, of course, yes. Not installing or using an energy-consuming device must represent energy saved. It’s surprising, then, that the metrics most frequently applied to energy efficiency in lighting make little, if any, allowance for these obvious facts. Most of the indicators are derived from numerical ratios, not absolutes.

Which uses more energy, a 60W incandescent light bulb in the downstairs loo at home or a 32W compact-fluorescent downlight in the stationery cupboard at work? The ratios used in our legislation and guidelines fail to give us a full picture: efficacy tells us how many lumens per watt, but not how many lumens we need to do the job nor how many watts we consume; LOR tells us how much light made it out of the luminaire but not whether it went somewhere useful.

There are several unknowns, of course, which make this an ambiguous question. Perhaps most significant is that we have no idea of the switching regime and, consequently, no measure for the total energy consumed over time.

We consume electrical energy in kilowatt-hours, not in percentages. It is perfectly possible for a compliant lighting design to consume energy unnecessarily and, at the same time, for a good, responsible lighting design to fall foul of the legislation. Addressing this concern in the last issue of the Newsletter (Nov/Dec 2010), Lou Bedocs talked of ‘help to the lighting designer of new or in particular novel lighting schemes’ and introduced LENI (the Lighting Energy Numeric Indicator) as a better overall measure. This was echoed on the next page by Iain Macrae who talked also of a ‘need to comply with good design’. So, what are the techniques which might be applied to achieve these ‘new’, ‘good’ and ‘novel’, energy-efficient schemes?

There are at least five factors that contribute to the overall energy usage in this ‘energy saving by design’ philosophy: the quantifiable parameters – efficient light sources, effective luminaires, intelligent control – and then the more qualitative aspects of brightness perception and visual comfort.

In evaluating a lighting design brief, we often ask a simple two-part question: what do you want to see and when do you want to see it? This shapes the design decisions and applies equally to the architecture as it does to activities and to atmosphere as it does to energy. Ultimately, all of the design decisions – aesthetic or technical – are based on the people who will inhabit the spaces we illuminate.

It is estimated that 80 per cent of the human visual field comprises vertical surfaces. So, unsurprisingly, our perception of the brightness of a space is strongly influenced by the brightness of the vertical surfaces that surround us. In simple terms, lux on a wall (3 x 35W wallwashers, bottom) is worth more than lux on the floor (5 x 35W downlights, below).
The image describes scenarios where energy savings can be achieved by efficient design choices. It mentions the importance of considering visual comfort and contrast. It advises on selecting the right light sources and optics for different applications, such as retail displays, to enhance energy efficiency. The text also highlights the role of lighting control systems in managing energy consumption effectively. It concludes with a discussion on the importance of lighting in creating pleasant environments. 

**Image Description:**
- A diagram illustrating the comparison between traditional reflector optics and LED lens optics. The traditional reflector optics control only the reflected portion of the available flux, whereas LED lens optics control all of the transmitted flux, leading to lower overall losses and better beam efficiency.
- A photograph of a light fixture, possibly a LED luminaire, with a label indicating its energy-saving technology.

**Text:**
- Imaginary horizontal plane, somewhere about a yard above the floor is meaningless in many applications where, if the space is not filled with desks or tables, the illuminance is visible only to a light meter. Even in a room where a regular grid of downlights is an appropriate solution, the perimeter luminaires of that grid can still be specified as wallwashers — with light distribution biased towards the adjacent vertical surface, rather than the horizontal — and the perception of brightness will be dramatically increased for negligible loss of horizontal light level. Of course, this does rely to a great extent on the surface finishes of the walls (perhaps Part L should make provision for efficient paint) and these deserve to be treated as part of the lighting specification.

- From a purely arithmetical, energy-saving perspective, too, the uniform, horizontal-lighting approach is questionable. More interesting design criteria for a reduced total load would be based on light distribution — visibility, contrast, visual comfort. A retail display, for example, lit to 300 lux against a background of, say, 50 lux, will stand out as a highlight. But if the aisle were to be lit to 400 lux, a display level closer to 2000 lux would be required to achieve a similar contrast.

- The idea of visual comfort is similarly related to contrast. A luminaire which causes glare is wasting energy, however ‘efficient’ it might be. Although it may have a high LOR, if its glare is distracting or disabling to the visual task then the more light that comes out, the harder it is to see. In this case there is a trade-off between efficient light output and effective glare control — one could say LOR versus UGR.

- The guiding principle must be to deliver light where you want it, not where you don’t. In specification terms, this means choosing appropriate beam angles so that light isn’t wasted and appropriate cut-off angles to avoid glare. This approach will rarely lead to an ‘efficient’ luminaire — one with a high LOR — but will use light effectively, often requiring fewer fittings. Again, an argument for the LENI approach.

- The efficiency of the light source itself is clearly a fundamental factor in reducing energy use. The engineering arguments for the various options are well known (even if an honest, apples-for-apples comparison of LED parameters still seems to elude us). There are, however, subtle properties which basic energy calculations might not reveal.

- One example is the use of LED luminaires in display lighting. The nature of LED technology is such that, with appropriate optics, the light emitted can be gathered with much less wastage or ‘spill’ than would result from a traditional reflector system. This fact is not apparent in either efficacy or LOR figures, but evident in a more unusual metric, lux per watt, measured or calculated for the illuminated surface. Effective optics can shape the available light from an LED into a defined beam distribution more efficiently than a reflector (which controls only the reflected portion, about half of the available flux). LEDs perform significantly better than like-for-like spotlights with ‘capsule’ sources against this measure. Simply put, projected lumens are more valuable than reflected ones.

- Another property of light sources, also highly relevant to display lighting, is that of brilliance. How to quantify the extra ‘zing’ or sparkle that an intense, metal halide point source gives to an illuminated object? What extra visual value might we place on more brilliant illuminance — a property which goes undetected in the usual calculations?

- Saving the energy-efficient designer’s best tool till last, brings us to the lighting control system — two birds with one stone. The technology that allows lighting to be ‘moulded’ in a very theatrical way is also an enormous opportunity for energy savings. Scene-setting gives precise control of the energy consumed, independent of the installed load, while the myriad ‘auto-off’ functions available return to the fundamental premise that a light that’s switched off when it’s not needed gives the greatest saving of all.

- Closed-loop daylight linking, open-loop daytime switching, absence detection, timed events and sequences all offer opportunity to dim or extinguish electric lights. Whether using more complex controls, or simply a well-designed manual system, the important factor is the automation or motivation to switch lights off. The risk of a poor control system lies in designing it separately from the rest of the lighting.

- So, a recipe for energy saving by design? It would go something like this: the qualitative design must always come first — a lighting concept with a clear strategy for light (and dark) distribution. This should always consider the vertical surfaces — lighting designed in section, not plan. For the specifications, then, consider first, efficient light sources, then effective optics before luminaire aesthetics; finish with intelligent control.

- Finally, is the effect pleasant? Who will use the space and how? What value do we place on their comfort and enjoyment?

**Image:**
- A photograph of a lighting designer, Tad Trylski, training manager of Erco’s global Erasmus Program.
**Glowing backwards and forwards**

LEDs and other lighting technologies, human factors and the history of daylight – Iain Carlile distills the latest research

Mark S Rea’s opinion piece on the future of LED lighting opens this edition of LR&T. He notes that due to the present buzz surrounding white LED light sources, the price of lighting equipment is not the only topic that is of interest to clients and that it is also important to promote the advantages of sustainability and efficiency. He calls on the lighting world to research and demonstrate the quantifiable benefits of LEDs before interest in the technology wanes and cost again becomes the only issue of concern.

There are no less than five papers covering lighting technologies, three related to light sources, both old and new, and two on the subject of lighting controls.

The first paper on light sources investigates the impact of both continuous and pulsed current supplies on the colour properties of LEDs. The conclusion is that a continuous current supply is preferable for LEDs that are switched, while for dimming applications a pulsed current supply helps preserve the stability of their colorimetric parameters.

DC Agrawal sets out a number of equations for predicting the performance parameters of tungsten filament lamps, while the final paper on sources proposes a method for predicting the lifetime of a fluorescent lamp based on a minimum number of accelerated life tests.

The two papers on lighting controls technologies both focus on occupancy-based systems. Assessing their performance, the first finds that those using single sensors have a significant level of uncertainty when measuring the occupancy of a space. The second paper concludes that the occupancy of a space can be more accurately detected by using a sensor network rather than a single sensor. The results of this study will be of interest to anyone involved in the design of lighting control systems.

The first of two papers relating to human factors demonstrates that the method of illuminance adjustment to provide an estimate of preferred illuminance is biased by the stimulus range presented. Generally test subjects will show a preference for the middle of the range of illuminances provided. The availability of higher maximum values results in increased levels of preferred illuminance. The study calls into question conclusions made in previous work which rely solely on this method to identify preferred illuminance values.

The other paper on human factors examines the effects of long-wavelength red light and short-wavelength blue light on alertness and mood at night-time. The finding is that both red and blue light have an influence, demonstrating that both the circadian system and the visual system can affect a person’s alertness.

A daylight study by J Du and S Sharples looks at the geometrical shapes of atria and the effect they have on the vertical sky component. Those involved in the design of atria will find the guidelines useful.

The final paper celebrates the 250th anniversary of the publication of works by Bouguer and Labert which summarised the principles of photometry and daylight science. It is a fascinating retrospective look at their work.

SLL members can view papers free at www.sll.org.uk
Debate

Too bright for words

In her book Light Volumes, Dark Matters, based on a two-year research project, Claudia Dutson challenges conventional thinking in workplace lighting.

At 19.56 the occupant of a house in Malvern leaves the living room to make a cup of tea before Coronation Street begins. Some 80 miles away in Sindlesham, Berkshire, the operations manager at the National Grid Electricity Control Centre brings another generator online. That the seemingly idiosyncratic behaviour of one person has great significance to the operators of the National Grid may seem surprising. But as the first beats of the EastEnders theme tune plays on ten million television sets it synchronises a collective action of switching on that causes a massive surge in demand for electricity.

The example goes some way to illustrate why a company that manufactures energy efficient lamps would collaborate with a centre of research that specialises in ‘people-centred design’ to answer a question about light, health and sustainability. In 2008, I began working on a two-year research project at the Royal College of Art Helen Hamlyn Centre that was supported by the Megaman Charity Trust Foundation. The project set out to look at the impacts of increasing lighting levels on the health of employees in the workplace environment within the context of sustainable practice. It was suggested that excessive levels of artificial light were putting stress not just on the environment through high levels of energy consumption, but also on those who spent their entire working day under uniform bright light.

Traditionally the conditions for interior lighting have been derived from a mechanical interpretation of productivity. The more light, the faster a visual task can be completed with accuracy. Furthermore, the concepts of being switched-on, fired-up and plugged-in are embedded in the culture of the workplace. In the early part of the last century, 500 lux would have been inconceivably bright, although the outdoors provides several times that level of illuminance. Indeed our spirits are invariably lifted by the sunshine, and yet the brightly lit office floor is very rarely anything other than a dispiriting visual environment.

Despite the recent research into the optimum wavelengths of light that stimulate alertness, it has become clear that light does not operate in isolation; there is more at work in our brains than the transfer of chemical signals. To uncover some of the structures at work besides the neurological, I looked at language as a key to understanding the cultural and behavioural phenomena that were at play in lighting the workplace.

This investigation clearly revealed how far cultural ideas of light tended to overshadow the actual experience of light, as participants in the study struggled to articulate why a lighting condition in their workplace was unpleasant when it...
Debate

appeared to tick all the boxes. Their desk space was bright, they could see what they were doing, it was a safe place to work and yet the lighting seemed to be problematic.

It seemed irrational to suggest that the lighting was too bright, and many people interviewed felt as though they had to declare personal health conditions – such as migraine, lupus, electromagnetic sensitivity – as a legitimate way of saying that they found very bright light uncomfortable.

In the English language there are many words that borrow from ‘light’, or that have an etymological relation to light and dark, which are used to talk about a broad range of subjects, not just about light itself. As the lexicon of words grew, so participants in the study were encouraged to talk more freely about light. Borrowing from a popular radio game show, they were challenged to talk about light for one minute without repetition, hesitation or deviation. When asked to reflect on the typical illumination in the office, each participant revealed differences in their perception of light and the politics of their workplace.

One of the participants identified a code of morality in the workplace that determined whether the first person to arrive at work should switch on the lights. His colleagues seemed to view him with suspicion if he was sitting at his desk without the lights on when they got in. Perhaps he was up to something ‘immoral’ in the semi-darkness, or possibly that in neglecting to switch on the lights, he was neglecting his work – ‘As if it were compulsory, like switching on the printer’.

Where daylight was insufficient, the use of artificial light in workplaces provided ample material for conflict. Lighting can be used as a symbol of power and control, for instance. A participant described the action of her manager as he passed through the open-plan floor to his personal office; he would switch off the overhead lighting in favour of desk-lamps, leaving his administration staff to fumble in the dark edges of the room for files. While some conflicts simmered under the surface, another participant explicitly referred to the ‘light fights’ that took place in her workplace. While some workers wanted to feel ‘at home’ while working, there were others who wanted to feel ‘at work’.

The problems presented by multiple and complex lighting needs may be viewed as impossible to resolve through lighting design. The tendency is therefore not to address them, instead favouring an average level of illumination that will provide a suitable level for visual tasks.

The apparent neutrality of standard and uniform lighting strategies is deceptive. The conflict is instead shifted to the office floor and makes the inability to resolve the problem through lighting design a problem of the people who work there. It turns those who wish to deviate from the norm of illumination into ‘difficult’ co-workers.

The research revealed the limits of trying to solve all problems with technology. Indeed, the cultural associations of light carried such a weight that the impartial mediator of the ‘automated switch’ was often attributed with anthropomorphic characteristics. Rather than alleviating problems, the switch was sometimes seen as mischievous when it plunged an immobile and yet hardworking employee into darkness, or benevolent when it anticipated the occupant’s entrance to a room.

Perhaps, following the energy company that tuned into the far-reaching consequences of the habits of the television-watching public, lighting specifiers could tap into the eccentricities of office politics in order to create more humane and energy efficient lighting strategies.

‘This investigation clearly revealed how far cultural ideas of light tended to overshadow the actual experience of light, as participants in the study struggled to articulate why a lighting condition in their workplace was unpleasant when it appeared to tick all the boxes’

Light Volumes, Dark Matters is available from the Helen Hamlyn Centre at the Royal College of Art (hhc@rca.ac.uk) and costs £10 (incl p&p). See www.lightvolumesdarkmatters.com for more details.

Claudia Dutson specialised in digital media before starting a degree in architecture at the University of East London and graduating with an MA in architecture from the RCA in 2008.
Opinion

Facebook the facts

Social media could work a tweet for promoting the SLL, argues Stephen Lisk

Are you LinkedIn or on Facebook? Are you a Tweeter, or do you read a post from your favourite blogger over coffee? Perhaps the world of social media up until now has simply passed you by. If it has, you might want to think again.

So what exactly is social media? The term is difficult to define but, loosely speaking, it is an interactive form of communication, whether it be on Wikipedia, MySpace, Twitter, Facebook or the literally hundreds of other less well-known web-based platforms.

Facebook – co-founded in 2004 by Mark Zuckerberg and now immortalised in the recent film The Social Network – is a social networking site that allows people to communicate with family, friends and colleagues. And it’s big business. It has 500 million users worldwide, with 70 per cent of users outside the United States, and 50 per cent of all active users on the site in any given day. Last November even the Queen launched a British Monarchy page on Facebook.

Twitter is a social networking and micro-blogging service that allows people to answer the question ‘What are you doing?’ by sending short messages of up to 140 characters in length (called tweets) to their followers, allowing us all to rapidly share information with people in a way that we might not by phone or email.

But do I really want to know, for example, what @raymolony is doing at this very minute? As the editor of Lux magazine is one of several people I ‘follow’, the answer is yes: what he is doing might be a work-related tweet about an industry development, an up-and-coming lighting event, or – who knows? – discovering a rare ornithological find in Outer Mongolia. And that’s the point about Twitter. It can be a serious or a social post, or a bit of both.

Being able to share ideas with like-minded people, to argue the pros and cons in a discussion, to share experiences or to have a rant is no longer the sole domain of the mainstream media. This is where traditional media and social media differ. What’s ‘trending’ on Twitter, who are the ‘influencers’ on LinkedIn, are decided not by editors but by the people themselves. And this power really cannot go unnoticed. The case can sometimes get overstated, but it is not for nothing that recent political upheavals in Tunisia and Egypt have been dubbed ‘Twitter Revolutions’.

The SLL has already dipped its toe in the social-media waters through Facebook, LinkedIn and Twitter, but what should the Society of Light and Lighting be delivering to you on its Facebook page and through its tweets and, furthermore, how can you get involved?

In my opinion, social media have the potential to make the SLL a universal hub for lighting knowledge; after all we are widely recognised as the people who know everything about lighting. Clever use of these forms of communication could allow us to share this knowledge with a much wider audience and in new ways.

For instance, you could use LinkedIn to connect to colleagues and business associates, and to view and comment on the SLL discussion boards. It helps you both to keep up to date with the latest developments and to stay ahead in your work. Conversely, Facebook might keep you informed about all the latest events and activities, not just of the SLL, but industry-wide. As for Twitter, well who knows what any of us will be tweeting about.

So why not give social media a whirl? Tweet us (@SLL100) and let us know what you are doing – in a maximum 140 characters of course...

Former SLL president Stephen Lisk is chairman of the society’s communications committee. Follow him on Twitter @OneEighthyLight
Brand aid

A seamless solution for an open-minded company

KPMG wanted a low energy, sophisticated lighting solution that would reinforce brand identity and a sense of openness – clients and staff mix and mingle on all floors without division. The building has few internal barriers and wherever people are within the building the lighting is designed to direct the eye through the space, towards the core.

‘The solution provides excellent vertical illumination throughout, ensuring the eye is drawn through each space enhancing the permeability,’ says Paul Nulty of Light Bureau.

The main atria – there are nine in all, providing break-out and informal meeting spaces – are lit with linear fluorescent luminaires using specially designed dropped diffusers that provide sideways illumination to the ceiling plane. All are controlled by daylight sensors.

Tungsten halogen is used judiciously, in the level-14 client dining suite, for instance. Creating a visual statement as well as filling the large volumes with diffuse light, oversize pendants combine mains dimmable low energy lamps with halogen spotlighting to the tables.

Attention to detailing was paramount. Linear extruded fixtures illuminate the entire length of the core wall but the tolerance usually expected within such long runs of linear fittings (more than 50 metres) is barely perceptible, according to Nulty. Louvres are fitted with special gaskets which perform three functions: they prevent light bleed, conceal flex within the luminaires and also ensure they are perfectly straight along the entire length of the core wall. Specially designed corner sections also ensure the fitting appears continuous around the core.

The aim was to integrate lighting wherever possible, including cove lighting, joinery lighting, floor-recessed troughs and feature elements. ‘All pendants are sat within coffers, for instance, to ensure every fixture location feels deliberate, meticulous and “solid” as though they are part of the building fabric,’ says Nulty. In the presentation suite, for instance, luminaires integrate sprinkler pipes and return air. ‘The positivity of the client coupled with real collaboration means in many areas it’s hard to see where the interior architecture ends and the lighting starts,’ says Nulty.

‘The lighting aims to create rhythm, contrast and drama, providing a masculine, sophisticated workspace. Wherever possible the lighting and architecture are integrated’
– Paul Nulty, Light Bureau

Project: KPMG’s new £340m HQ, a 37,000-plus sq m, 14-storey building at Canary Wharf, London, housing 4000 staff. Light Bureau’s remit involved nine atria, certain office areas, meeting, dining and circulation spaces

Client: KPMG
Lighting design: Light Bureau
Architect: Swanke Hayden Connell
Electrical engineer: Aecom
Electrical contractor: Phoenix Electrical
BREEAM rating: Excellent
Lighting energy: average installed load is 14W/sq m and average daytime operational load 11W/sq m. Offices (not Light Bureau) are 10W/sq m at 500 lux
2011

2 March
The Colour of Light
Margaret Halstead
Memorial Meeting
Organiser: The Colour Group
Venue: City University, London
More information from
Mike Pointer
mrpointer@btinternet.com

10 March
Lighting Design Awards
Venue: London Hilton
Park Lane, London W1
www.lightingawards.com

15 March
Is Light a Hazard?
Venue: Chamber of British Shipping
Carthusian Court, 12 Carthusian
Street, London EC1
Speakers: Arfon Davies, John
Mardaljevic, Barrie Wilde
Time: 6pm-8pm
Registration required
www.sll.org.uk

16 March
Ready Steady Light
Including free pre-event seminar:
Stadia for Theatre for HDTV
Time: 2pm
Speaker: Durham Marenghi
Location: Rose Bruford College,
Sidcup, Kent
www.sll.org.uk

24 March
Lighting Masterclass
The Low Carbon Challenge
Speakers: Brian Charman,
Chris Wilkes, Iain Macrae,
Stewart Langdown, Tad Trylski
Plus IALD guest speaker
Time: 10am-4.30pm
Location: Edinburgh
www.sll.org.uk

28, 29, 30, 31 March
Drivers of Change in Lighting: LIF
regional half-day seminar programme
Locations: London, Birmingham,
Leeds, Edinburgh respectively
Topics include legislation overview,
lighting controls,
LEDs/OLEDs
Time: 10.30am (incl lunch)
E: info@lif.co.uk
www.lif.co.uk

12-17 April
Euroluce000000
Venue: Fiera Milano Nuovo
Polo, Milan, Italy
www.cosmit.it

28 April
Lighting Masterclass
(sold out)
Location: Dublin
www.sll.org.uk

17-19 May
Lightfair International
Daylighting Institute
(15-16 May)
Venue: Pennsylvania Convention
Center, Pennsylvania
www.lightfair.com

19 May
Lighting Masterclass
(sold out)
Location: London
www.sll.org.uk

24 May
AGM, presidential address
and awards reception
Venue: tbc
www.sll.org.uk

7-10 June
Interaction of colour and light
in the arts and sciences
Venue: Zurich University of
the Arts Switzerland
www.aic2011.org

Lighting Masterclasses:
Masterclasses are kindly
sponsored by Erco, Holophane,
Philips, Thorn and Tridonic. For
venues and booking details, see
www.sll.org.uk

Mid Career College: the college
runs various courses across the
whole spectrum of lighting and at
sites across the UK. Full details at:
www.cibsetraining.co.uk/mcc

LIF courses: details from John
Hugill, 0208 529 6909, or email
training@lif.co.uk