

Attachments

SSIT Board of Governors
Meeting

28 July, 2012

University of Connecticut
Stanford, Connecticut

From: m.s.young <m.s.young@ieee.org>

To: g.engel <g.engel@computer.org>

Cc: t.caliendo <t.caliendo@ieee.org>

Subject: IEEE Public Visibility - Seeking Your Assistance

Date: Thu, Jul 12, 2012 2:12 pm

Attachments: Technical_Expert_Information_Form_06-2012.doc (57K)

Dear Dr. Engel,

I am writing to follow up on the e-mail sent to you on June 21, 2012 requesting your support.

As part of the IEEE Public Visibility Initiative, last year we employed your assistance in raising the visibility of IEEE and its Societies, and positioning IEEE as a thought leader on prominent issues around the world. This year we are again seeking your assistance in **identifying technical experts in the Society on Social Implications of Technology** who can speak to the media on various "hot topics" around the globe, such as:

- **Sustainable Energy:** nuclear, wind/wind energy, solar, green transportation/electric vehicles, biofuels (our greatest need is in **Brazil**)
- **Healthcare:** biomedical, telemedicine, bioelectrics, nano-biotechnology, neuroengineering (our greatest need is in **Japan, China and India**)
- **Consumer Electronics/Gaming:** mobile technology, sustainable electronics, intelligent transportation, robotics, batteries and power supply, gaming, multimedia, augmented and virtual reality apps
- **Engineering Education:** global workforce, women in engineering, accreditation, lifelong learning, technology education
- **Computing/Information Technology:** supercomputing, cloud computing, piracy and security, networking, cybersecurity, sensors, green communications, digital devices, data connectivity, wireless, 3G, 4G, 5G
- **Electron Devices/Photonics:** semiconductors, fiber optics
- **Sports Technologies:** biomedical devices, remote monitoring technology, performance monitoring technology, and sport/technology trends (our greatest need is in **UK, USA, and Brazil**)

Our initial efforts are focused in 6 countries: **Brazil, China, India, Japan, the UK, and the US**. We envision their participation to include one or more of the following activities:

- Participating in media opportunities;
- Contributing/drafting articles to be published in industry publications;
- Tapped for speakerships, press seminars, and media engagements
- Featured on the IEEE.org website and in IEEE press releases;
- Recommending additional subject matter technical experts, and/or tie-in events.

We ask that these technical experts fit the following criteria:

- They can "drill down" on the subject matter
- They are comfortable speaking to the media

Our goal is to expand our repertoire of subject matter experts to ensure that IEEE can quickly respond to hot issues and showcase our leadership in these areas.

Once you provide us with your recommendations, the Public Visibility program will begin the process of pitching these technical experts to the media on particular "hot topics", themes and storylines.

For your convenience, attached please find the Public Visibility Technical Expert Information Form to share with those individuals you have recommended. S/he can submit a completed form at any time to me at m.s.young@ieee.org or Tracey Caliendo at t.caliendo@ieee.org (Public Visibility Staff Lead).

Your efforts are most appreciated.

Thank you,

Michael Young

Public Visibility
IEEE

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Public Visibility
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Piscataway, NJ 08854-4141
m.s.young@ieee.org

(p) 732-562-5523
(m) 732-236-2377

<http://www.ieee.org>



Public Visibility Technical Expert Information Form

CONTACT INFORMATION:

Name:

E-Mail Address:

Phone number (daytime):

Phone number (evening):

IEEE INFORMATION

Membership Level:

Society Membership(s):

Member since:

TECHNICAL EXPERTISE INFORMATION:

Areas of expertise:

Number of years of experience in this field of interest:

Trends/Research of interest:

Professional Bio: (you may also send your resume/CV to j.grandal@ieee.org. if desired)

Thank you for your interest in sharing your expertise! If we receive a media opportunity that matches your information, we will contact you.

2013 - Society / Council [\[arr\]](#)

[Last View Date](#) [\[arr\]](#)

Production Parameters

Name	Page Count		Distribution Frequency			Production	
	Total Paper	Full Paper	Online - PRT	Online - DLE	Printed - Other	Production - Volume	Production - Editing Level
HYSL	256		*	*		337	EE

Membership

Name	Year	Level
HYSL		Online & Electronic
IEEE Traveler		Electronic
IEEE Online Community		Electronic

Total Membership:

Subscription Pricing (US \$)

Name	Society Number				IEEE Number				IEEE Student Number				Non Member				Usable Calcul
	PRT	DLE	DLE	Other	PRT	DLE	DLE	Other	PRT	DLE	DLE	Other	PRT	DLE	DLE	Other	
HYSL	120		120		152	32	152		120	16	120		390	340	470		

Legend: PRT=Print DLE=Electronic (Online) DLE=Online & Print Combined Other=Digital CD or DVD

Additional Comments:

By submitting this form, I am attesting that, to the best of my knowledge, the information herein is accurate, including the arrangements specified for publications offered to multiple Societies. Where applicable, this information has been reviewed with the volunteer/leader/s of my Society/Council/CoS and/or approved Publication and is subsequently approved.

PUBLICATIONS REPORT/ACTION BoG 7-28-12

- 1) *SSIT's Technology and Society Magazine is making waves.*

A recent New York Times article cited an upcoming article in our magazine:

<http://www.nytimes.com/2012/06/17/opinion/sunday/how-depressed-people-use-the-internet.html>

Editor-in-chief Katina Michael has a dramatic TEDx video available on YouTube:

<http://youtu.be/fnghvVR5Evc>

- 2) *Katina Michael will be making several Associate Editor changes.*

As per usual SSIT practice, these changes are not required to have Board approval, but we thought it sensible to let you know they are coming. The changes will be effective in the first issue of 2013.

- 3) *T&S needs to be certain about future ISTAS meetings as soon as possible.*

We are assuming that the upcoming meeting in Singapore is an official ISTAS. That is the way we have been promoting it in T&S and on the SSIT website. We are a little worried because at least some of the publicity about the conference doesn't stress the ISTAS label.

Part of our concern about this is that we are planning to have a special issue of T&S magazine in 2013 based on papers from this conference. This is our assumption, and has ramifications for scheduling if it is not. If we are having a special issue, 4 papers from the conference will be accepted for the special issue, averaging 5,000 words each.

Is there a 2014 ISTAS planned? Again, our scheduling has always included a special issue of papers from an ISTAS. If there is no ISTAS we need to know as soon as possible. Our usual practice has been to plan special issues, including the ISTAS special issue, two years ahead.

- 4) *T&S Magazine/IEEE SSIT Website redevelopment plans continue to evolve.*

Katina Michael received a quotation for a redevelopment of the Magazine/SSIT web site. Internetrix (www.internetrix.com.au) proposed to build a fully functional web site at the cost of 11,800 Australian dollars. This cost would include: (1) porting over all the current material to a new web site based on the SilverStripe product, (2) a paper submission system with tracking ability for the authors, (3) a database of members, (4) a reviewer database, (5) conference attendees database, (6) monthly newsletter capability and readership statistics. Given the increase in paper submissions (70 in the last 6 months), managing paper visibility throughout the submission process has substantial overhead for the editorial team. We can cope with the overhead at present but going into the future, if submission rates increase to 20 per month, it would be time to go to a real system. Is there any funding for this kind of endeavor? The quote from Internetrix is attached to this report.

- 5) *Katina Michael would like to begin building a reviewer database for IEEE T&S.*

If you are interested in acting as a reviewer from time to time please let her know. Or if you would like to recommend people in your network send her an email. Her aim is to compile a list of about 1000 names with contact details and key research areas.

6) URGENT ACTION ITEM: More pages are needed.

SSIT's Technology and Society (T&S) has an embarrassment of riches, an overwhelming backlog of great peer reviewed articles. In order to deal with this, we propose to increase the number of pages in 2012. This will help us finish our paper publication with a flourish.

CURRENT APPROVED PAGE BUDGETS AS OF 7/21/12:

2012 – 248 inside pages plus 16 covers = 264

2013 – 280 inside pages plus 16 covers = 296

Requesting yet another increase – 24 additional pages in 2012.

Additional cost – approximately \$6000-\$7000 including printing and mailing for 2012

Also we may LATER (in 2013) likely ask for additional 24 pages for 2013 – cost for 2013 will then be less, approximately \$3500 because of no printing/ mailing costs of the all-electronic version. However, the current request is for 2012 only.

7) An IEEE Computer Special Issue with SSIT-driven content is being proposed.

Negotiations are ongoing about a special issue of IEEE Computers that would be focused on issues near and dear to SSIT. Katina Michael is spearheading this effort.

8) We would like someone to fix the Wikipedia entry for T&S Magazine.

Might Laura Jacobs be an appropriate person to do this? Things to update include: (1) mission; (2) key areas; (3) time established; (4) historical information (why society was established, ISTAS conferences, editors of Magazine, chairs of conferences, etc) (5) key papers. Much of this data exists in Karl D. Stephan's extended note/review article, and also recent IEEE PIEEE invited article on the social implications of technology.

9) Terri is continuing research and implementation of our electronic version.

Mags for 2013 [approved by SSIT BoG for 2013] –We will get started setting this up through IEEE in the next two months.

Ipad app for 2013? In terms of possible iPad application – it sounds like some things are in flux. Peter Touhy says strategic issues - IEEE might be having QMags make an app for all IEEE Pubs instead of individual apps for each publication that requests it. Peter Touhy checking on this now for us to see when/if this will come into play for us. Something about, the format they

use for this app/program might be one that will work on all platforms -- iPad, Android etc. More info over the next few weeks.

Note: no funding for an iPad application for T&S for 2013 has yet been requested or approved by the SSIT BoG.

TOC announcement emails for T&S for 2013 [approved by SSIT BoG for 2013] – These emails are set up in house @ IEEE and Terri has contact with Peter Touhy on this.

Internetrix Proposal

The IEEE Society on Social Implications of Technology

Website upgrade project



Internetrix

Level 4, 85 Smith Street,
Wollongong NSW, 2500

www.internetrix.net

Contact:	Jacinta Cali
Position:	Creative Director
Email:	jacinta.cali@internetrix.com.au
Postal:	PO Box 981, Wollongong NSW 2520
Phone:	02 4228 6464
Mobile:	0418 630 097
Fax:	02 4226 1985

26th June 2012

Dear Katina,

Thank you for the invitation to make a submission for the IEEE Society on Social Implication of Technology web site upgrade project. Please find below a detailed response that outlines our understanding of the project requirements and how we could be involved in delivering the requirements.

Our total proposed price is \$11,825 including GST with a full table of costs outlined on page 2 below. This price does not include potential ongoing costs including shared or dedicated hosting and ongoing maintenance and support packages. Both of these optional extras have been described in detail below.

To support our submission please find five separate appendices at the end of the response including;

Appendix A: Examples of complex database projects we have delivered with dozens of tables

Appendix B: SilverStripe CMS overview which includes the CMS default capabilities

Appendix C: Copies of our Australian Government protected and baseline security clearances

Appendix D: Copies of our relevant insurance policies

Appendix E: A selection of other well known Australian brands that Internetrix works with

Internetrix has been a supplier to the education and thought leadership industry for many years. As such I wanted to provide you with comprehensive detail and transparency.

Regards,



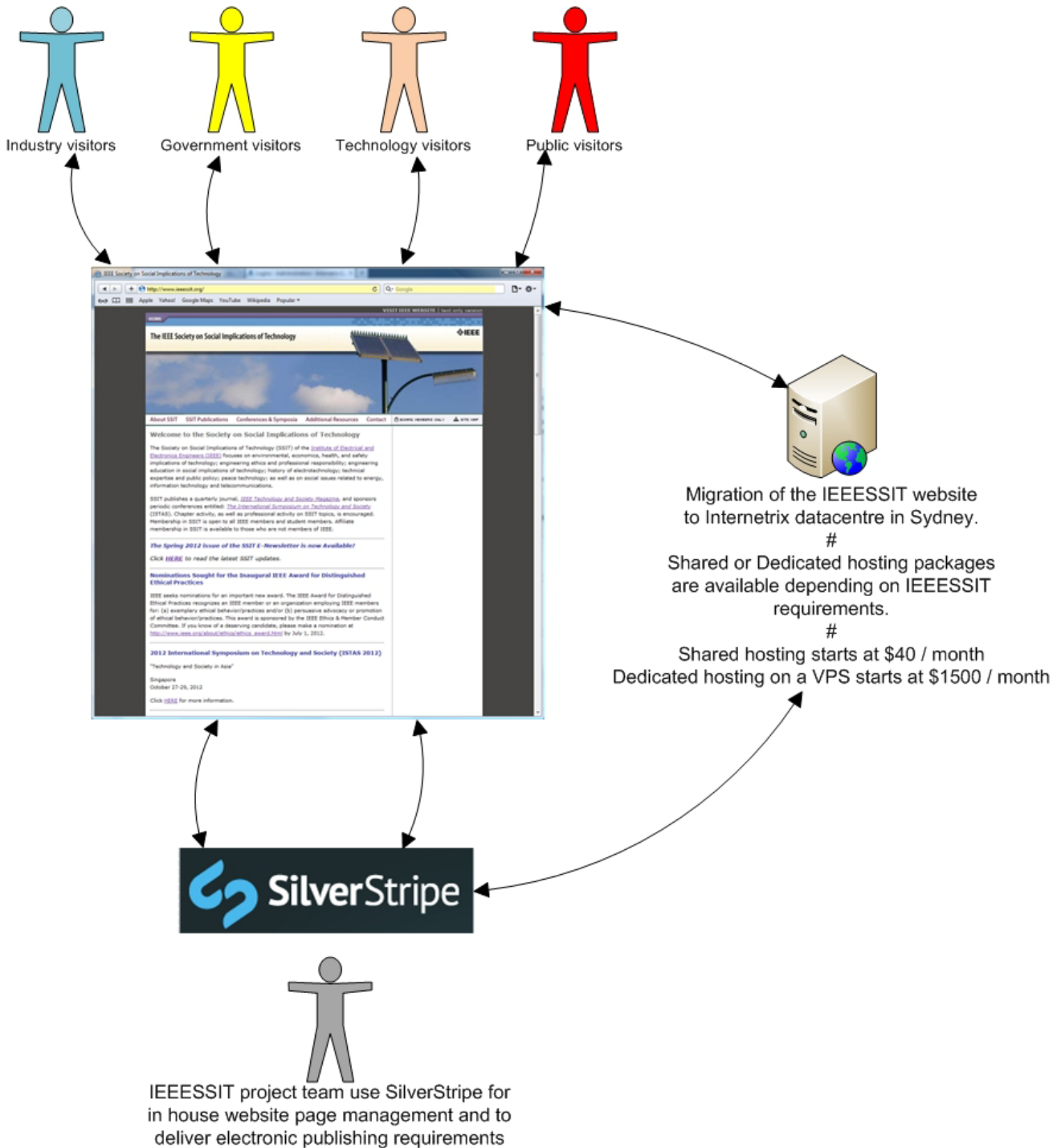
Jacinta Cali

Creative Director

jacinta.cali@internetrix.com.au

P: 02 4228 6464

Proposed Solution Diagram



The above diagram represents how Internetrix would implement a content management system called SilverStripe to provide in house management of the new digital platform. A full breakdown of SilverStripe's features and compliance with this RFQ is provided in Appendix B from page 19.

Project costing

Component	Investment
Consulting	
Sitemap Audit	\$900
Wireframes and information architecture	\$1,200
Development Specification	\$600
Creative	
Template concepts	\$1,500
Revisions	\$600
HTML / CSS file conversion across devices and different browsers	\$1,200
Product Licenses	
SilverStripe Content Management System license	\$0
Implementation	
SilverStripe + template integration	\$2,400
Content deployment	\$1,200
SilverStripe training (3 x 90 minute webinar SilverStripe training session)	\$450
Datacentre configuration	\$300
Project Management	\$400
Requirements Sub Total	\$10,750
GST	\$1,075
Total	\$11,825
Ongoing Maintenance and support (optional)	
IEEESSIT can purchase a 25 hour / 50 hour / 100 hour support packs as required. 25 hour support packs are charged at \$200 per hour and costs \$5,000; 50 hour support packs are charged at \$175 per hour and costs \$8,750; 100 hour support packs are charged at \$150 per hour and costs \$15,000; Internetrix on demand hourly rate outside of a support pack is \$235 + GST per hour. Based on the existing IEEESSIT website we would recommend a 50 hour support pack to last 6 months after go live.	TBD

- Components provided in beige in the table above are not included in the proposed project costing due to their optional nature.
- Project milestones and rollout dates are available on receipt of contract signoff.
- All pricing excludes GST unless otherwise indicated.
- Pricing above based on an audit of the existing website. No formal requirement documentation was provided. Any changes to the brief could alter costs.
- Internetrix will provide a contract for ratification if we are selected as the preferred supplier.
- Internetrix requests a 45% deposit, 35% progress payment and 20% on finalisation.
- Any approved scope creep is billed at \$1320 inc GST per day.

Answers to frequently asked questions

1. What is the support lifecycle for the product?

SilverStripe is a Wellington, New Zealand headquartered company that initially released the CMS in 2000. SilverStripe has a core software development group within its company whose main purpose is to provide support and release updated versions of this platform on an ongoing basis.

An advantage of SilverStripe is that as an open source platform, global users have contributed extensive additional custom modules which we are freely available to use. This has significantly increased the functionality and quality of SilverStripe as a CMS.

SilverStripe Beta 2 was released in March 2012 and is expected to be finally released as SilverStripe 3.0 known as SilverStripe Sapphire in July 2012. This upgrade timeline allows SilverStripe 3.0 to be deployed as the CMS of choice should Internetrix be selected as the preferred supplier.

To understand the frequency of SilverStripe CMS upgrades please find below recent years product timeline which shows major updates that have occurred.



2. How are upgrades handled?

Internetrix would keep the new system up to date with the latest SilverStripe releases if the proposed maintenance and a support agreement is in place post go live. We have recommended a 50 hour support pack for post go live improvements and support. This budget would enable to Internetrix to keep SilverStripe up to date into 2013.

3. Can your system be hosted on-site or off-site? And what are the support arrangements for both?

Yes our proposed system can be hosted at your server facility or at the Internetrix datacentre in Sydney. We have recommended a 50 hour support arrangement be in place so that we can maintain and support the server infrastructure at our own datacentre. Shared hosting and dedicated hosting costs at the Internetrix datacentre are provided on the following page.

4. How is the security of the data handled?

We propose to implement a 256 bit Secure Socket Layer certificate to protect and encrypt data as it is transferred across the internet to and from the new website.

Once data is stored on the server it will be only available to Administrators through SilverStripe which has world class security protocols such as hashed passwords in place.

5. Can the system handle multiple membership lists for newsletter dispatches?

Yes the SilverStripe newsletter module allows full segmented lists and categories so that a dispatch can be sent just to one specific list or many lists as required.

6. What is the amount of data storage provided or what are the costs associated with data usage?

Shared Hosting: Internetrix takes shared hosting very seriously - so seriously, in fact we've taken the responsibility - and accountability - on our own shoulders, delivering our own boutique and tailored data centre specifically focused on the needs of our clients. With the best hardware, the latest software and a dependable network, we deliver the shared services you need. Our shared hosting infrastructure is located in the Global Switch datacentre in Pyrmont, Sydney.

Hosting Plan	Storage	Monthly Data Limit	Annual Rate	Monthly Rate
Standard	200MB	10GB	\$399	\$39.90
Professional	500MB	20GB	\$599	\$59.90
Enterprise	1GB	30GB	\$1299	\$129.90
Extreme	3GB	40GB	\$1799	\$179.90
Unlimited*	5GB +	50GB+	\$2490	\$249* (+ \$30/GB after first 5GB storage / 50GB traffic)

Figure 1: Internetrix shared hosting table of costs

Dedicated Hosting: As the new system grows it may be necessary to host on a dedicated server. If the system is on one of our dedicated servers Internetrix is then able to guarantee 99.7% uptime. We can also provide a scalable private VPS for when things get really busy, daily onsite and weekly offsite backups on a piece of infrastructure that is all yours.

As an indication we can provide a VPS on a 2 year contract for \$1500 per month. A monthly price point like this will get you a VPS that includes:

8 vCPU (Dual Intel Xeon) -> 12GB DDR3 RAM -> 160GB SAS storage (RAID 10) and a 200GB monthly traffic quota.

The host server would typically be a Dual Intel Xeon Hex core, 128GB DDR3 RAM and 12x 600GB SAS drives with 2x internal SSD's running CacheCade.

7. What kind of external data reporting can you provide?

Internetrix can provide an advanced Google Analytics implementation. We would deliver full on click tracking within every page template and form, to provide a detailed analytics profile.

8. Can the system provide different functionalities for different roles?

Yes, SilverStripe can provide a restricted interface for various roles and permissions. The following screenshot provides transparency in how Admins would control different user permissions.

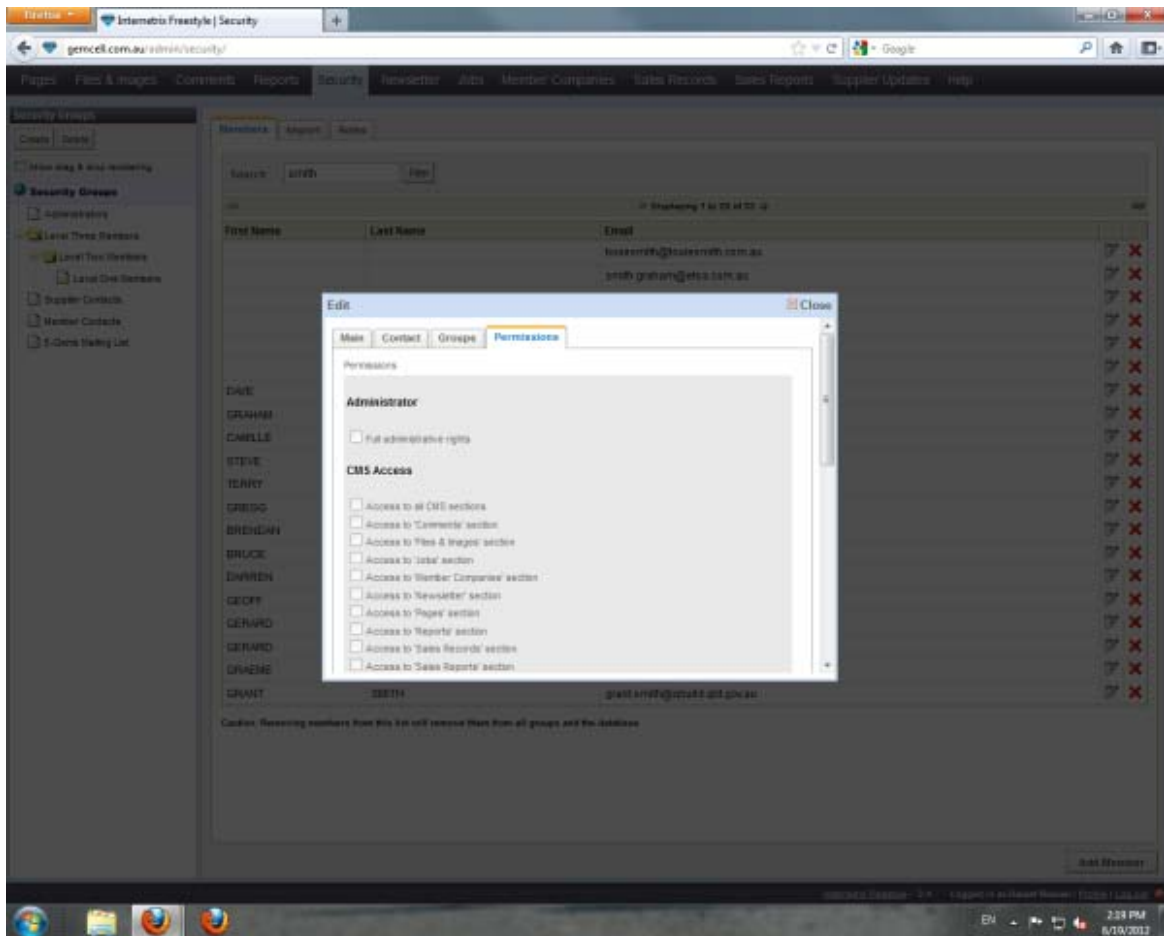


Figure 2: SilverStripe security module

9. What online payment options does the system support?

Internetrix has worked for many years at implementing payment gateways for our clients websites and online systems. For membership fees and event attendance fees we propose a standard payment gateway with eWAY who is Australia’s leading payment gateway provider, and located in Canberra. We also support other pay gateway options such as PayPal, SecurePay etc.

10. Have we thought of everything?

No. The proposal has a development specification task which allows our project team to unpick the exact IEEEESIT requirements and then match them up with the relevant software modules and implementation plans. Our mature planning processes have been developed to handle initial requirement uncertainty. If ideas come forward that aren’t covered in the project budget a contract variation can be prepared. Alternatively the proposed post project maintenance bundle can be brought forward and start to be consumed in project.

Relevant Project examples

The following examples demonstrate Internetrix ability to deliver outcomes against a set of requirements similar to that shown on the IEEEESSIT website.

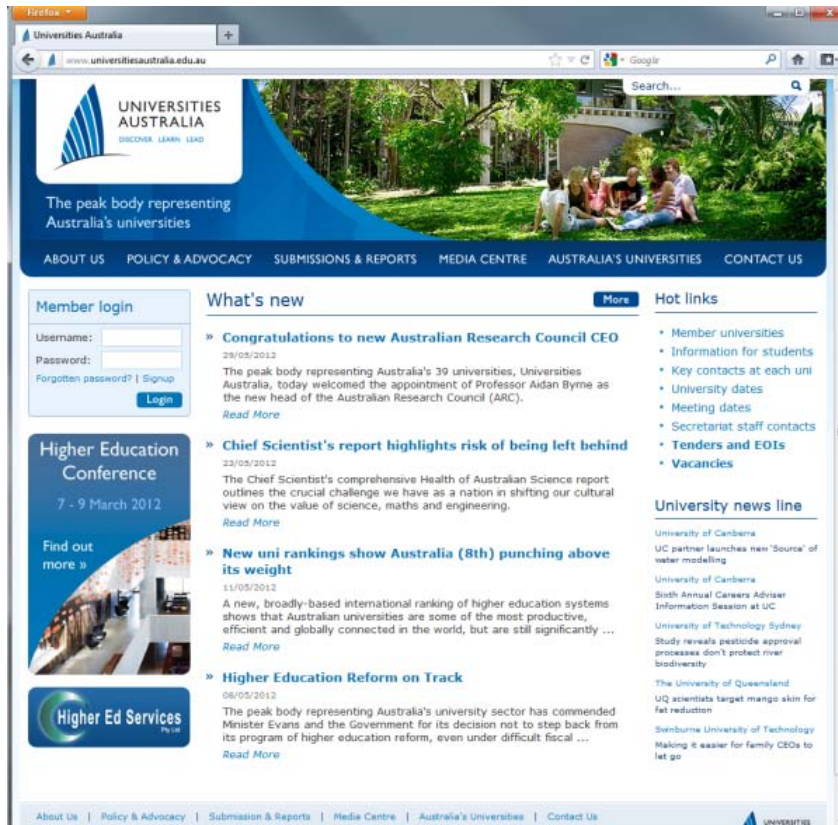
<http://www.aciic.org.au> (Managed by Internetrix since 2005.)



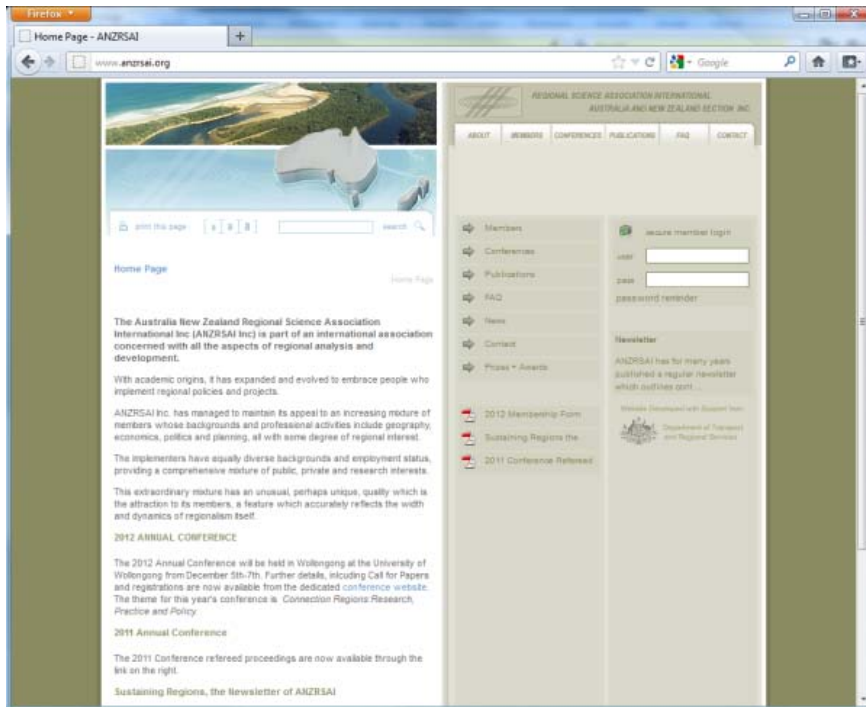
<http://www.hes.edu.au> (managed by Internetrix since 2007)



<http://www.universitiesaustralia.edu.au> (managed by Internetrix since 2009)



<http://www.anzsa.org> (managed by Internetrix since 2004)



Relevant Referees

Referee	Description of Services Provided	Contact Details
<p>Higher Education Services (HES)</p> <p>Located at:</p> <p>Level 10 The University Centre 210 Clarence St Sydney, 2000</p>	<ul style="list-style-type: none"> ▪ Internetrix has been a digital supplier to HES since 2007. We have implemented and maintain various versions of the HES website and are currently engaged to deliver the 2012 website upgrade and integration improvements. ▪ Ongoing digital services include upgrades, product feature implementation, training, technical support and ongoing digital platform advice. 	<p>Leanne Vaughn Senior Business Consultant leanne@hes.edu.au P: (02) 9286 0710</p>
<p>Universities Australia (UA)</p> <p>Located at:</p> <p>1 Geils Court Canberra, 2600</p>	<ul style="list-style-type: none"> ▪ Internetrix has been a digital supplier to UA since 2009. We have implemented and maintain various versions of the UA website and online database systems. ▪ Ongoing digital services include upgrades, product feature implementation, training, technical support and ongoing digital platform advice. 	<p>Cassandra Webeck Director, Corporate Services c.webeck@universitiesaustralia.edu.au P: (02) 6285 8126</p>
<p>University of Wollongong (UOW)</p> <p>Located at:</p> <p>Northfields Ave Wollongong, 2522</p>	<ul style="list-style-type: none"> ▪ Internetrix has been the preferred digital supplier to UOW since 2009 and a supplier since 2003. ▪ Internetrix provides digital support services across UOW faculties, research areas and administration functions. ▪ Recent project work includes: http://employment.uow.edu.au https://nccc.internetrix.net http://aroc.internetrix.net 	<p>Robert Robinson Web Coordinator Information Technology Services (ITS) robertr@uow.edu.au P: (02) 4221 4713</p> <p><u>and/or</u></p> <p>Emily Osborne Brand Manager emilyc@uow.edu.au P: (02) 4221 5374</p>

Internetrrix Accreditations

Federal Government Panel contracts



- Department of Prime Minister & Cabinet
- Department of Broadband and Digital Economy
- Museum of Australian Democracy – Old Parliament House
- Department of Families, Housing Community Services & Indigenous Affairs.

In April 2011 Internetrrix was reappointed for a further 3 years to the DBCDE Online Solution Services Panel. Initially appointed in 2007, Internetrrix continues to work on projects of national significance.



In October 2010 Internetrrix was invited onto the Department of the Prime Minister and Cabinet, Web and Application Development and Management Services panel and also the Museum of Old Parliament House - Digital Marketing Services panel for the 2011, 2012 and 2013 period.



In May 2010 we were selected to join the Department of Families, Housing, Community Services and Indigenous Affairs HTML Conversion Services Panel 2010-2012.

Google Analytics Certified Partner



In 2007 Internetrrix joined an elite global panel of 26 companies accredited as a Google Analytics Certified Partner (GACP). As a GACP we can provide Google Analytics support, training & consultancy to enable greater visibility of website visitor behaviour to help turn those visitors into a strong lead generation source. Internetrrix was the second Australian company to attain the GACP accreditation.

NSW Department of Commerce: ICT Services Approved Supplier Panel – Contract 2020



In May 2009 Internetrrix was accepted onto the NSW Department of Commerce's ICT Services Approved Supplier Panel – Contract 2020. The initiative is aimed at increasing transparency and competition for government buyers. Admittance to the panel requires stringent testing to ensure our products and services meet the government's high standards.

Google Urchin Certified Partner



During November 2008, Internetrrix was recognised as an Urchin Software Certified Partner (UCP). Urchin is an enterprise web analytics offering that can be installed on your infrastructure, offering you visibility over your website. Internetrrix can provide the Urchin licence, and associated implementation and support services to aid you in successfully deploying the software.

Illawarra Business Awards: Information Communication & Technology business of the year 2010, 2007.

Illawarra Business of the Year 2007.



In November 2010 Internetrrix was announced as the Integral Energy Illawarra Business Awards ICT category winner. This follows on from previous success having won the same award in 2007 as well as in that year being named the overall 2007 Illawarra Business of the Year. The Integral Energy Illawarra Business Awards are regional Australia's largest business awards.

Internetrix Key Personnel

Should we be selected as the preferred supplier for this project, the Internetrix primary contacts will be Jacinta Cali, Daniel Rowan and Michael David.

These three staff members have been identified based on their leadership positions within Internetrix and experience delivering relevant equivalent projects across the University of Wollongong.

Jacinta, Daniel and Michael are available to lead the Internetrix project teams between now and February.

Jacinta Cali (Creative Director)

- Manager of Internetrix website project division
- Bachelor of Communication Design
James Cook University
- Experience: 7 years
- Role: Creative and project delivery responsibility

Daniel Rowan (General Manager)

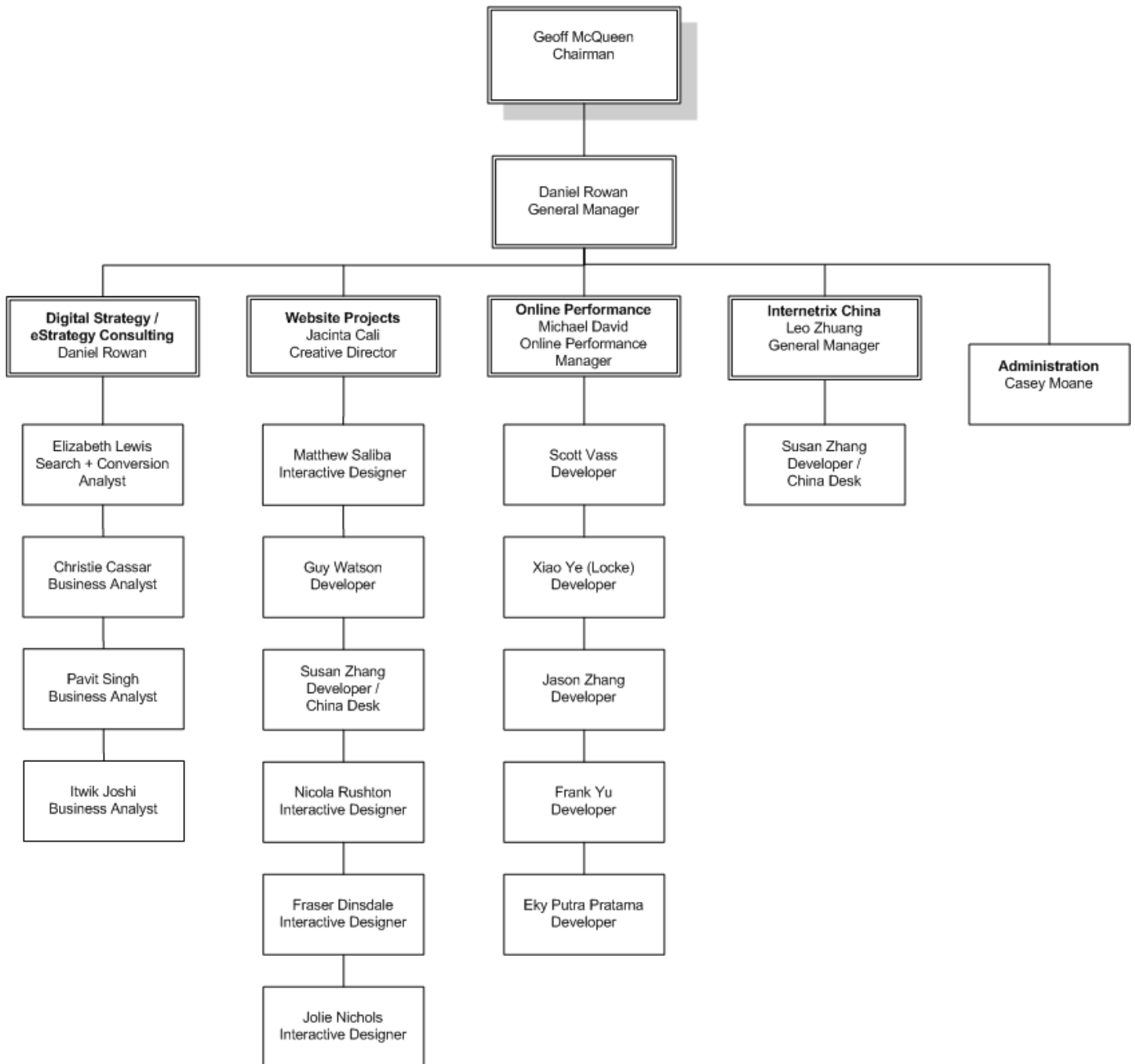
- MBA (Exec) - Master of Business Administration (Executive)
AGSM - Australian Graduate School of Management
University of New South Wales
- Bachelor of Information & Communication Technology / Computer Science
University of Wollongong
- Experience: 12 years
- Role: Consulting / account oversight

Michael David (Online Performance Manager)

- Manager of Internetrix online performance division
- Bachelor of Science (Computer Science)
Dalhousie University, Canada
- Experience: 11 years
- Role: Google Analytics expert

Internetrix Organisation Chart

As at 26th June 2012 – 23 employees.



Internetrix – What sets us apart

Internetrix was established in 2000 and is a privately held technology company based in Wollongong, NSW. The company has two export offices with one located in Xiamen, China which was opened in 2010 and the other located in San Francisco, U.S.A which was opened in 2011.

Internetrix maintains a close relationship with one of Australia's leading universities, the University of Wollongong and in 2012 has grown to support hundreds of customers throughout Australia, New Zealand, China and the United States.

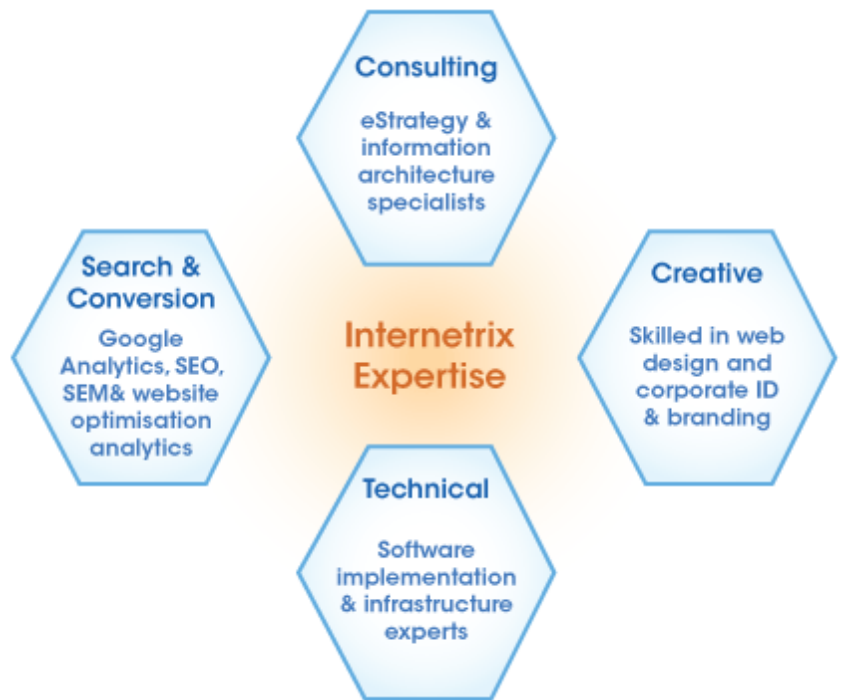
In 2007 Internetrix was the second company in Australia selected by Google to partner with them in an exclusive program as an accredited expert consultant, and in that year was also awarded the Illawarra Business of the Year award.

In 2008 Internetrix acquired our second accreditation from Google as the first Website Optimizer Technology Partner in the southern hemisphere. Our relationship with Google has further developed to the point that now in 2012 we have four official Google partner accreditations.

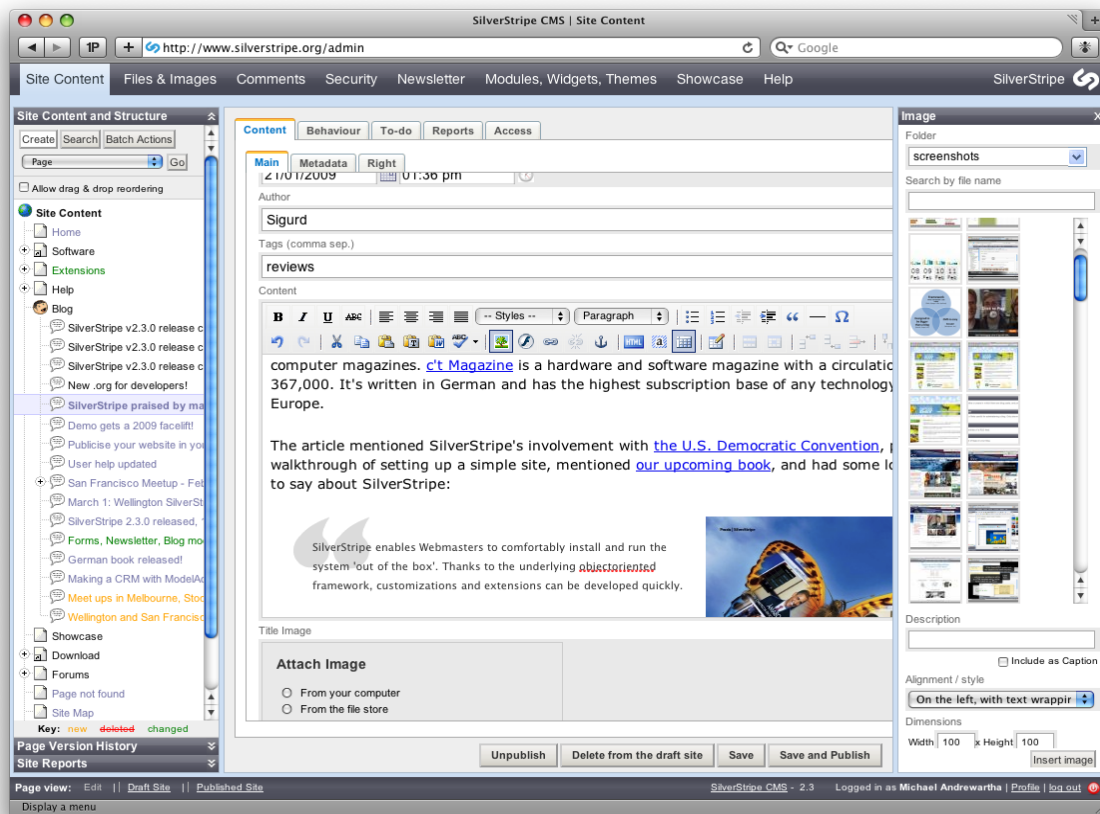
Internetrix has worked with a wide range of public and private sector organisations delivering web-based marketing and management solutions and expert technical consulting services to overcome real business problems. With over 12 years experience Internetrix is one of Australia's pioneering internet consulting companies. Our clients cross industries such as all layers of federal, state and local government, public companies and dynamic medium to large privately held businesses.

Internetrix global headquarters is located in Wollongong, NSW. Our operating and support hours are from 8:30am to 6:00pm, Monday to Friday AEST / AESDT with a 24/7 attended switchboard supported by urgent escalation and alerting to relevant designated mobile phone numbers for after-hours/weekend support as required.

Internetrix offers world class expertise from our three core business divisions including: Website Projects, Online Performance and Digital Consulting. Our infrastructure services team support customers who need shared or dedicated hosting from our datacentre in Pyrmont, Sydney or remotely in customers own datacentres as required.



Recommended CMS - SilverStripe



SilverStripe is a flexible open source Content Management System (CMS) that can give IEEEESIT control over the provision of online content from an easy-to-use interface. Access to SilverStripe is web-based meaning that Admin users are able to log in and edit content on the new digital platforms from anywhere with an internet connection. SilverStripe allows users to complete the following actions;

- Create new pages and drag and drop them where you want them to be in the sitemap.
- Edit and style content in an editor that uses a formatting toolbar that is familiar to anyone who uses word processing software.
- Manage events, photo gallery and user interactions that occur with the subscribers.
- Easily insert links images, and video into your content.
- Copy and paste content directly from Microsoft Word.
- View a draft of your content changes before publishing them on the live site.
- Publish multiple changes to the site with one click.
- Assign different user roles and permissions for each section or page.
- View older versions of a page, and roll back to a previous version, if needed.
- Send e-newsletters to your database segments when required.
- Watch a 10 minute demo video at silverstripe.org/assets/video/cms.html
- An interactive demo is available at demo.silverstripe.com
- A 450 page book on SilverStripe CMS is stocked at bookstores and www.amazon.com

- SilverStripe enables online tools, services, and payments.
- Under the hood, SilverStripe CMS helps developers to build and deploy rich, useful online services. Once built, these tools can then be shared with others using SilverStripe CMS. This gives public access to the services they want online.
- SilverStripe uses PHP scripts and MySQL databases by default. It requires best of breed dedicated servers with enough CPU, RAM and Hard drives to manage the visitor load.
- Internetrix recommends a Virtual Private Server (VPS) for a commercial SilverStripe implementations. A typical VPS specification should at a minimum include:
 - 8 x vCPU (Dual Intel Xeon)
 - 10 x 12GB DDR3 RAM
 - 2 x 160GB SAS storage (RAID 10)
- SilverStripe makes updating content easy. Every customer has told us that SilverStripe CMS offers non-technical staff the easiest and most flexible solution available for updating webpage content. As a result, updating information, links, images, and documents becomes a joy.
- SilverStripe is Standards-compliant: SilverStripe CMS is built with best practices in mind. It's easy to make your site compliant with e-government and W3C web standards. The software's built-in versioning provides a solid audit trail for changes to your site.
- Cost-effective: SilverStripe CMS has neither upfront nor ongoing license fees. Out of the box functionality provides you with the base functionality you seek. The modern software architecture makes modifying or upgrading the system efficient and cost-effective.
- Reliable and integrates well. The code base is of high quality and is regularly audited for security. It runs reliably on both Microsoft and Linux web servers, and integrates well with the back-end systems commonly found within councils.
- No vendor lock-in. The source code and documentation is publicly available. Companies throughout Australia and the world can support the platform after initial project deployment.

Appendix A - Major database integration projects

Internetrix has a long history of delivering complex online database projects. To help demonstrate the level of our technical capability and expertise with very large database development projects database table sizes have been provided.

1. UOW Australian Rehabilitation Outcomes Centre:

<http://ahsri.uow.edu.au> and <https://aroc.internetrix.net>

2. UOW National Casemix and Classification Centre

<http://nccc.uow.edu.au/> and <https://nccc.internetrix.net>

3. UOW Discovery Days - teacher and student registration management system

<http://discoveryday.uow.edu.au/> and <http://discoverydays.internetrix.net>

4. Bible Society of Western Australia

Online donation management system that has been used since 2003 in NSW, South Australia and Western Australia

http://biblesocietywa.internetrix.com.au/cgi-bin/admin.cgi?action=frames&old_action=&old_file=/cgi-bin/admin.cgi (use Internet Explorer only)

5. Gemcell Pty Ltd

<http://www.gemcell.com.au>

Online supplier and member sales management system used by over 250 branches around Australia for ongoing sales figure management on a monthly basis.

6. Strathfield Municipal Council

<http://eda.strathfield.nsw.gov.au/application.pl>

Complex database structures

The image displays three Notepad windows, each showing the output of a 'show tables;' MySQL command for a different website. Each window also includes a 'SELECT count(id) FROM table;' query for several tables to show their row counts.

AROC Ordering Tables - Notepad

```

mysql> show tables;
+-----+
| Tables_in_uow_aroc_ordering |
+-----+
access
address
address_link
attachment
campaign
campaign_action
campaign_action_format
campaign_action_type
categorisation
category
category_target
change_log
click
contact
country
customer
dispatch
dispatch_link
event
event_link
event_type
folder
freestyle_experiment
freestyle_experiment_link
friendly_url
ga_profile
geo_address
groups
inclusion
lib
link
list
notes
order_info
order_status
page
payment
photo_friend_log
product
product_category
product_order_link
recipient
recipient_marshall
region
report
report_chart
report_data
rule_clause
rule_variable
ruleset
seo
shipping
staff
staff_membership
story
student_details
subscriber
subscription
template
traffic
type
+-----+
61 rows in set (0.00 sec)
                
```

NCCC Ordering Tables - Note...

```

mysql> show tables;
+-----+
| Tables_in_uow_nccc_ordering |
+-----+
access
address
address_link
attachment
campaign
campaign_action
campaign_action_format
campaign_action_type
categorisation
category
category_target
change_log
click
contact
country
customer
dispatch
dispatch_link
event
event_link
event_type
folder
freestyle_experiment
freestyle_experiment_link
friendly_url
ga_profile
geo_address
groups
inclusion
lib
link
list
order_info
order_status
page
payment
photo_friend_log
product
product_category
product_order_link
recipient
recipient_marshall
region
report
report_chart
report_data
rule_clause
rule_variable
ruleset
seo
shipping
staff
staff_membership
story
student_details
subscriber
subscription
template
traffic
type
+-----+
60 rows in set (0.01 sec)
                
```

Discovery Days Tables - Notepad

```

mysql> show tables;
+-----+
| Tables_in_discoverydays |
+-----+
answer
careers_answer
contact
export
faculty
folder
hs_subjects
lib
link
page
page_link
preference
question
question_option
school
staff
student
studying
subject
traffic
type
+-----+
21 rows in set (0.00 sec)

mysql> SELECT count(id) FROM preference;
+-----+
| count(id) |
+-----+
|      63111 |
+-----+

mysql> SELECT count(id) FROM student;
+-----+
| count(id) |
+-----+
|       5483 |
+-----+

mysql> SELECT count(id) FROM studying;
+-----+
| count(id) |
+-----+
|      18132 |
+-----+

mysql> SELECT count(id) FROM subject;
+-----+
| count(id) |
+-----+
|        439 |
+-----+

mysql> SELECT count(id) FROM traffic;
+-----+
| count(id) |
+-----+
|       2914 |
+-----+
                
```

More complex database structure examples

```

Strathfield EDA Tables - Notep...
File Edit Format View Help
http://eda.strathfield.nsw.gov.au
APPLICANT: miked - mike123
ADMIN: mike_admin - mike123

Database changed
mysql> show tables;
+-----+
| Tables_in_strathfield_eda |
+-----+
149_certificate
603_certificate
application_types
bc
building_classification
cc
cc_private
cdc
cdc_private
classification_linked
consent_modification
consent_modification_link
contact
da
diary
dop_statistics
existing_fire_measure
existing_pope
existing_sewage_facility
file
file_type_link
file_types
fire_safety
fire_safety_link
fire_safety_measure
integrated
integrated_link
job
job_status
link
linked_type
local_approval
location
macros
modify_consent
name
notification
oc
oc_private
ownership
payment
pope
review_determination
service
sewage_facility
specification
staff
staff_permissions
state
task
template
tmo
torrens
tracking
type
type_assign
waste_management
waste_service
waste_survey
waste_survey_link
+-----+
60 rows in set (0.00 sec)

Gemcell Tables - Notepad
File Edit Format View Help
mysql> show tables;
+-----+
| Tables_in_gemcell |
+-----+
access
attachment
campaign
campaign_action
campaign_action_format
campaign_action_type
categorisation
category
category_target
change_log
click
contact
dispatch
dispatch_link
event
event_link
event_type
folder
freestyle_experiment
freestyle_experiment_link
friendly_url
ga_profile
geo_address
groups
inclusion
lib
link
list
page
photo_friend_log
recipient
report
report_chart
report_data
rule_clause
rule_variable
ruleset
seo
staff
staff_membership
story
subscriber
subscription
template
traffic
type
+-----+
46 rows in set (0.00 sec)

Bibleman WA Tables...
File Edit Format View Help
MUST USE IE
http://biblesocietywa.intel
mike - mike12

mysql> show tables;
+-----+
| Tables_in_WA |
+-----+
access
account
appeal
bank
batch
campaign
code_ref
contact
denomination
diary
donation
donor_ref
donor_type
ledger
mail_code
membership
pledge
pledgeBUP
pledge_old
presort
receipt
region
relation
ride
ride_ref
source
staff
subscription
template
+-----+
29 rows in set (0.00 sec)
    
```

Appendix B - SilverStripe CMS default capabilities

Function		Yes / No
1.	Choice between approval processes for content publishing ie: (author is editor and publisher), (author / editor / publisher) without reliance on Internetrix	Yes
2.	Full version control of content in draft and published mode with the ability to track iterations through to final	Yes
3.	Subscriptions to updates by page	Yes
4.	Accept user ratings and store those user ratings over time	Yes
5.	Cross linking between sections	Yes
6.	Colour coding of sections	Yes
7.	Word to HTML conversion with simple copy and paste	Yes
8.	Automatically create PDF and WORD formats from HTML with implementation of the SilverStripe PDF rendition module	Yes
9.	Fully accessible reporting system for staff is available in SilverStripe and as a default provides; Empty pages report, Pages edited in the last two weeks report, the to do report and for Broken links report. Further customised reports can easily be developed.	Yes
10.	Bookmarking	Yes
11.	Built in search functionality	Yes
12.	Printer friendly compliance	Yes
13.	General enquiry / feedback tool	Yes
14.	Integrate with IIS 7 / web server 2008 / provided IEEEESIT server cluster	Yes
15.	HTML 5.0 compliant	Yes
16.	Google Analytics code on each page	Yes
17.	Multi platform capable ie: smart phone, tablet	Yes

SilverStripe list of features relevant to the RFQ

Function		Yes / No
1.	Distributed authorship	Yes
2.	In-line editor	Yes
3.	Basic image editor so authors can submit their own media	Yes
4.	Thumbnails and Search of all media so that browsing media is possible at a glance and/or tags	Yes
5.	Clear review and approval paths	Yes
6.	Drag and drop survey module	Yes

7.	Robust e-newsletters module (statistics, click tracking, in-situ subscribe/unsubscribe, HTML client check, list management backend software)	Yes
8.	Method for managing business papers (meeting agenda, reports and minutes) in team context	Yes
9.	Serve multimedia (YouTube, maps) in page	Yes
10.	Integrate with server OS	Yes
11.	Blog software interface or integration with WordPress blogs	Yes
12.	Facebook, Twitter, GooglePlus integration	Yes
13.	Output and receive RSS feeds	Yes
14.	Capacity to integrate with other software	Yes
15.	Survey function	Yes
16.	Media browser that can handle IEEEESIT photos	Yes
17.	Capacity to create apps of selected website sections	Yes
18.	Ability to backup site, or integrate with backup tools	Yes

General list of SilverStripe capabilities

Function		Yes / No
1.	Cross-browser support	Yes
2.	File and digital asset management	Yes
3.	Printer-friendly version control	Yes
4.	Accessibility version control, including the provision of text-only content, W3C requirements	Yes
5.	Easy to use editing features	Yes
6.	Non-technical interfaces	Yes
7.	Knowledge of HTML should not be a requirement to publish simple documents	Yes
8.	Provision of search and audit functions	Yes
9.	Style sheets – templates and themes to simplify management and provide a consistent look and feel. Separation of content and Presentation.	Yes
10.	Search engine friendly	Yes
11.	Ability to work / talk to other systems	Yes
12.	Compatibility modes, with the ability to distinguish between accessing devices i.e. computer, laptop, mobile, tablets	Yes
13.	Breadcrumbs	Yes
14.	Friendly URL configuration	Yes

SilverStripe Content editing

	Function	Yes / No
1.	Ability to offer specialist page editing (html, scripts etc) for advance users	Yes
2.	Ability to publish different forms of content, such as text, graphics and multimedia	Yes
3.	Ability to handle standard file formats such as Word, Excel, PDF, JPG etc	Yes
4.	Spell check capabilities	Yes
5.	Use of workflow tools such as edit/approval, notify, scheduling, tasks, email alerts, versioning and deletions	Yes
6.	Version control including archiving and rollback content	Yes
7.	Metadata facilities for the control of authorship, dates, context, help	Yes
8.	Centralised repository for files including images	Yes
9.	Multilingual support	Yes
10.	Online forms and surveys	Yes
11.	Date roll on/off scheduling	Yes
12.	Email updates when changes and additions are made to websites	Yes
13.	Password protected areas (members only)	Yes
14.	Image support for resizing and uploading	Yes

SilverStripe Administration

	Function	Yes / No
1.	Electronic control of roles and responsibilities such as administration, edit and publish (individual level)	Yes
2.	Security functions to control rights, responsibilities and permissions of groups and individuals	Yes
3.	Integrated site search engine controls	Yes
4.	Link management and maintenance	Yes
5.	Navigate within the CMS amongst multiple sites	Yes
6.	Internet and Intranet capabilities	Yes
7.	Extensive reporting capabilities	Yes
8.	Maintenance of site navigation	Yes

Appendix C - Australian Government security clearances

Please note, Daniel Rowan has Protected Status with the Australian Government.



Australian Government
Department of Broadband, Communications
and the Digital Economy

our reference

12765/08

21 January 2009



Mr Daniel Rowan
Corporate and Business
DBCDE

Dear Mr Rowan

SECURITY CLEARANCE ADVICE

This notification is to advise that the Delegate has granted you a security clearance at the **PROTECTED** level, with effect from 19 January 2009. Your security clearance is valid for a maximum period of 10 years. However the review process may be commenced any time after 5 years.

Your security clearance permits access to information classified up to and including **PROTECTED** based upon your need to have access in order to perform your duties. However, it does not automatically convey a general right of access to such information.

Should you no longer require access to Position of Trust classified information your security clearance may be administratively downgraded accordingly.

You are also advised that you have a responsibility to notify the Agency Security Adviser of any changes to your personal circumstances, such as but not limited to, marriage/divorce, change of name, or citizenship, extended overseas travel and criminal charges.

The Agency Security Adviser is also available to provide advice and assistance in relation to your protective security responsibilities and can be contacted on telephone number (02) 6271 1404.

Yours sincerely

Peter Day
Agency Security Adviser

c.c. PSF

Australian Government Baseline security status

Please note, Michael David has Baseline security clearance with the Australian Government.

Ref: VID: 465822

Dear **Mr Michael David**

This letter is to formally advise you that your Australian Government Baseline security clearance has been granted with effect **23 Feb 12**. During the time you are required to hold this security clearance, your suitability will be the subject of ongoing review.

As a security clearance holder, it is your responsibility to report any changes of circumstances to the Australian Government Security Vetting Agency (AGSVA), as outlined in the *Attorney General's Department – Reporting changes of personal circumstances guideline*. These guidelines require you to comply with the responsibilities listed below.

Reporting Responsibilities

All personnel security clearance holders must inform the AGSVA either through their security officer or direct to the AGSVA, any changes to their personal circumstances. Changes may include but are not limited to:

- change in relationship status;
- criminal charges, warnings or convictions;
- any incident that significantly affects your financial situation;
- any incident that significantly affects your personal life or physical well being;
- contacts with foreign nationals where enduring or of substance;
- contact with foreign intelligence officials or people you suspect of being a foreign intelligence official;
- involvement in criminal activity
- disciplinary procedures;
- security incidents

For further information regarding your responsibilities please refer to www.ag.gov.au

To advise the AGSVA of a change of personal circumstances, please complete SVA003 – *Clearance Holder Change of Circumstances Report* and forward to securityclearances@defence.gov.au. If you require further assistance or to ask any questions, please, phone the Client Service Centre on 1800640450.

Australian Government Baseline security status

Please note, Guy Watson has Baseline security clearance with the Australian Government.

Ref: VID: 467282

Dear **Mr Guy Watson**

This letter is to formally advise you that your Australian Government Baseline security clearance has been granted with effect **27 Feb 2012**. During the time you are required to hold this security clearance, your suitability will be the subject of ongoing review.

As a security clearance holder, it is your responsibility to report any changes of circumstances to the Australian Government Security Vetting Agency (AGSVA), as outlined in the *Attorney General's Department – Reporting changes of personal circumstances guideline*. These guidelines require you to comply with the responsibilities listed below.

Reporting Responsibilities

All personnel security clearance holders must inform the AGSVA either through their security officer or direct to the AGSVA, any changes to their personal circumstances. Changes may include but are not limited to:

- change in relationship status;
- criminal charges, warnings or convictions;
- any incident that significantly affects your financial situation;
- any incident that significantly affects your personal life or physical well being;
- contacts with foreign nationals where enduring or of substance;
- contact with foreign intelligence officials or people you suspect of being a foreign intelligence official;
- involvement in criminal activity
- disciplinary procedures;
- security incidents

For further information regarding your responsibilities please refer to www.ag.gov.au

To advise the AGSVA of a change of personal circumstances, please complete SVA003 – *Clearance Holder Change of Circumstances Report* and forward to securityclearances@defence.gov.au. If you require further assistance or to ask any questions, please, phone the Client Service Centre on 1800640450.

Appendix D - Internetrix insurance: certificates of currency

Public and products liability



CGU Insurance Level 2 243-249 Crown Street Wollongong NSW 2500
Phone (02) 4298 2026 Fax (02) 4226 7094 www.cgu.com.au

CERTIFICATE OF CURRENCY

The policy referred to is current as at the date of issue of this certificate and whilst a due date has been indicated it should be noted that the policy may be cancelled in the future. Accordingly, reliance should not be placed on the expiry date.

CLIENT NAME: INTERNET SOLUTIONSAUSTRALIA PTY LTD T.AS
INTERNETRIX

POLICY NO: 15T6120812

EXPIRY DATE: 18.12.12

TYPE OF COVER: LIABILITY INSURANCE

LOCATION: ANYWHERE IN AUSTRALIA

SUM INSURED: PUBLIC & PRODUCTS LIABILITY \$20,000,000

This is to certify cover has been granted in terms of the Company's Standard Policy, a copy of which is available on request.
This certificate is not a substitute for the Policy of Insurance issued to you. The Policy, not this certificate, details your rights and obligations and the extent of your insurance cover.

Yours faithfully,
Jodi Popovski
Jodi Popovski
UNDERWRITER

The information in this facsimile is confidential, intended only for the use of the addressees and may be legally privileged. If you are not the intended recipient, any dissemination, copying or use of the information is strictly prohibited. If you have received this communication in error, please telephone us immediately and destroy the original facsimile.

Professional indemnity certificate of currency



brooklynunderwriting.com.au

CERTIFICATE OF CURRENCY

This Certificate:

- Is issued as a matter of information only and confers no rights upon the holder;
- Does not amend, extend or alter the coverage afforded by the policy/policies listed;
- Is only a summary of the cover provided. For full particulars, reference must be made to the current Policy Wording;
- Is current only at the date of issue.

This certificate is to confirm that the insurance detailed below is currently in force, to the date of expiry.

Class:	Combined Information Technology and Telecommunications Liability Insurance
Wording:	Brooklyn IT Pty Limited – Combined Information Technology and Telecommunications Legal Liability Insurance Policy (Version QBIT May 2008)
Insured:	Internet Solutions Australia Pty Ltd T/as Internatrix
Policy Number:	BITL013334
Period of Insurance:	From 13/03/2012 at 4 pm AEST To 13/03/2013 at 4 pm AEST
Insurer:	Allianz Australia Insurance Limited
Professional Indemnity Limit of Indemnity:	\$5,000,000 Any One Claim and \$10,000,000 in the Annual Aggregate
Professional Indemnity Excess:	\$2,000 Each and Every Claim (Exclusive of Defence Costs and Expenses)
Retroactive Date:	Unlimited, excluding known Claims and circumstances
Public and Products Liability Limit of Liability:	\$0 Any One Claim and in the Annual Aggregate for Products Liability
Public and Products Liability Excess:	\$0 Each and Every Claim (Exclusive of Defence Costs and Expenses)
Territorial Limits:	Worldwide excluding USA and Canada
Jurisdictional Limits:	Worldwide excluding USA and Canada
Endorsements:	As agreed
Interested Party:	Not Applicable

T: + 61 2 8274 8177
F: +61 2 92522538

PO Box 101, Grosvenor Place,
Sydney NSW 1220

Lower Ground Floor
156 Gloucester Street
Sydney NSW 2000

Brooklyn IT Pty Limited
ABN 92 147 363 095 (Trading as an Authorised Representative of Allianz Australia Insurance Limited ABN 15 000 122 850 / AFSL 234708)

Appendix E - Relevant Digital Services portfolio

Other than the website examples provided earlier in this proposal, Internetrix has delivered digital services to a range of well known organisations including;



Webjet, a pure-play web organisation provides the Australian and New Zealand market with discount flights, accommodation and travels services. Internetrix has recently become Webjet's preferred supplier for Google Analytics services, in order to help them improve and optimise their sales funnel.



Australian Government
**Department of Broadband,
Communications and the Digital Economy**

In addition to being selected to join the DBCDE approved supplier panel. Internetrix produced a comprehensive search engine optimisation (SEO) report for the Stay Smart Online (SSO) group websites as part of a performance management review. As well as this, Internetrix reviewed and evaluated the Stay Smart Online (SSO) group of website's performance in the DBCDE's internal Funnelback search engine.

University of Wollongong



UOW engaged with Internetrix to provide Google Analytics support for tracking of over 100 sub-domains within a single profile and account. Internetrix assisted with profile, user access and filter development to fulfill UOW's reporting requirements. As well as this, Internetrix has assisted several schools within the University of Wollongong in developing effective SEM campaigns aimed at increasing the number of online enrolments through UOW websites, and SEO advice to boost organic ranking and visitation rates.



P&O is the oldest cruise line company in the world, based out of Southampton, England. Internetrix was engaged by P&O to provide Google Analytics consulting in order to help them track their customer acquisition process across multiple global domains.



FOXTEL is Australia's leading subscription television provider and is connected to almost 1.6 million homes on cable and satellite through retail and wholesale distribution. FOXTEL engaged with Internetrix to assist in tracking of Flash elements of the website through the use of Google Analytics through, goal funnel setup, Search Engine Marketing campaign integration and general clean-up of reporting.



Sony Music Entertainment, Inc. is a major global record label controlled by the Sony Corporation of America, being one of the big four major labels. Internetrix is engaged with Sony Music International to integrate Sony Australia's websites into a Global Sony Google Analytics Account Account. As well as this, we assist Sony Australia in report analysis and tracking of Flash elements on the Bandit.FM website

IEEE Computer Proposal

Special Issue Title: **Big Data: Discovery, Productivity, Policy**

Guest Editors (from IEEE's Society on the Social Implications of Technology) <http://www.ieeessit.org/>

- Assoc Prof Katina Michael, University of Wollongong
 - <http://ro.uow.edu.au/kmichael>
- Prof Keith Miller, University of Illinois, Springfield
 - <https://edocs.uis.edu/kmill2/www/>

Description

'Big data' is being touted as the next big thing. Since 2008, there has been much published on the promise of big data, and the exponential growth of electronic transactions via cloud computing, social networking, and mobile applications in particular. As companies attempt to leverage rich customer data through business intelligence applications, there are unanswered questions that need to be addressed. Where is this data being stored? How can it be accessed in a timely fashion? Who can access it? What can it tell us about customer patterns today and into the future? What is it costing organisations to keep this data? Are their proven economic advantages to the big data proposition?

One could argue that big data will become increasingly important because it is being driven by compliance/regulatory demands. On the other hand, electronic transactions and our ability to make sense of them also provide opportunities for discovery (e.g. open innovation models, health/ disease control). Tapping into big data has huge implications for business process management (BPM) for instance in increasing productivity in large corporates, but what are the consequences? We are looking for varied perspectives: the challenges, the issues, the resolutions, the potential, the dilemmas, the possibilities, and the benefits.

One of the areas of research that seems to have been neglected in the big data discussion has been that of policy, ethics, and transparency. How private organisations use the data they collect is almost always defined by policies at the point of collection. Public organisations and institutions may have a different governance model, and given the emphasis is on the "public good", the data collected by them (and usually funded by the taxpayer) may be utilised in a completely different manner. To that effect, what are the trade-offs of using for example, big data to prevent and control disease?

Another problem has to do with the amount of data being collected automatically by devices such as sensors, radio-frequency identification tags, location-enabled devices, point of view technologies (like CCTV), and global-positioning systems for moving vehicles etc. Some firms have too much data, and too little knowledge. Put in another way, public and private organisations have latent data they do not know how to harness, and data that has yet to be considered useful because there are no clear ways to analyse it. This does not mean that the techniques are not available for analysis, but that the process for analysing the data has yet to be defined. How much sense can be made of big data and how does one report on findings from big data and how frequently? Is interpreting big data just for the executives, or is it an operational level capability?

Important Questions

Points for broad discussion/coverage

- what makes big data “big”?
- how big data can be used in the health surveillance field- e.g. prevention/cures of disease
- how big data can better organisational productivity (are there limitations)?
 - Sensor driven data
 - Location-enabled data
- what is just-in-time information processing?
- how big data is not just a solution but also a problem
- approaches to the governance of big data
- legal/policy dilemmas around big data (e.g. privacy and data mining)
- sentiment analysis and opinion nets- do these big data analytical techniques pose ethical dilemmas

Invited Papers by Organisations (in no particular order)

Organisations, institutes, government agencies

- U.S. National Institute of Standards and Technology
 - Jeffrey Voas
 - <http://www.nist.gov/index.html>
- U.S. National Library of Medicine
 - <http://www.nlm.nih.gov/>
- Google
 - Hal R. Varian, emeritus professor in the School of Information, the Haas School of Business and the Department of Economics at the University of California at Berkeley
 - <http://people.ischool.berkeley.edu/~hal/>
 - Jess Hemerly jesshemerly@google.com
 - CC: Ishtar Vij [ishtarv@google.com]; alma@google.com; iflynn@google.com
- Centres for Disease Control and Prevention (CDC)
 - <http://www.cdc.gov/globalhealth/dphswd/idsr/>
 - cdcinfo@cdc.gov
- Global Information Industry Center (GIIC) at the University of California, San Diego
 - <http://giic.ucsd.edu/faculty.php>
 - Roger E. Bohn, professor of management and director at the GIIC
 - James E. Short, the Center's research director
 - Graduate students Coralie Bordes, Kylie Canaday, and John Petrequin

Invited Papers by Individuals (in no particular order)

Individuals

- Martin N. Baily, senior fellow at the Brookings Institution
 - <http://www.brookings.edu/experts/bailym>
- Erik Brynjolfsson, Schussel Family Professor at the MIT Sloan School of Management and director of the MIT Center for Digital Business
 - <http://ebusiness.mit.edu/erik/>
- Andrew McAfee, principal research scientist at the MIT Center for Digital Business
 - http://mitsloan.mit.edu/about/detail.php?in_spseqno=19913&co_list=E
- Roger Clarke, ANU and Marcus Wigan, Swinburne University, Australia
 - <http://www.rogerclarke.com>
 - <http://www.mwigan.com/mrw/Welcome.html>
- Paul Tallon, Sellinger School of Business and Management, Loyola University, Maryland
 - ptallon@loyola.edu

Key Papers in the Literature:

To be completed...

There are some landmark papers that have addressed issues related to big data. There are quite a few Google-related papers in *Nature* in 2008, and then again in 2012. Sporadic papers in *Communications of the ACM*, and *IEEEExplore* databases. A great number of popular articles in industry magazines. No special issues dedicated to the question outside *Nature*, to our knowledge. Authors of this literature may well serve as peer reviewers of our special issue.

Examples

- *Nature* 455, 47-50 (4 September 2008): Big data: The future of biocuration, by Doug Howe, Maria Costanzo, Petra Fey, Takashi Gojobori, Linda Hannick, Winston Hide, David P. Hill, Renate Kania, Mary Schaeffer, Susan St Pierre, Simon Twigger, Owen White & Seung Yon Rhee
- Jeffrey Cohen, Brian Dolan, Mark Dunlap, Joseph M. Hellerstein, and Caleb Welton. 2009. MAD skills: new analysis practices for big data. *Proc. VLDB Endow.* 2, 2 (August 2009), 1481-1492.
- Adam Jacobs. 2009. The pathologies of big data. *Commun. ACM* 52, 8 (August 2009), 36-44.
- H. Herodotou, H. Lim, G. Luo, N. Borisov, L. Dong, F. B. Cetin, and S. Babu. Starfish: A Self-tuning System for Big Data Analytics. In *CIDR*, pages 261–272, 2011.

Techniques for big data analysis (from McKinsey report):

- A/B testing
- Association rule learning
- Classification
- Cluster analysis
- Crowdsourcing
- Data fusion and data integration
- Data mining
- Ensemble learning
- Genetic algorithms
- Machine learning
- Natural language processing
- Neural networks
- Network analysis
- Optimization
- Pattern recognition
- Predictive modelling
- Regression
- Sentiment analysis
- Signal processing
- Spatial analysis
- Statistics
- Supervised learning
- Simulation
- Time series analysis
- Unsupervised learning
- Visualisation

IEEE Conference on Technology and Society in Asia 2012 (incorporating ISTAS 2012)

SSIT BoG Report 28 July 2012 Greg Adamson

1. Organisation

Conference being organised to fully comply with IEEE conference rules.

Organising Committee: Six organising committee teleconferences have been held since mid-April 2012, and are now occurring two-weekly. In addition to the six sponsoring IEEE OUs, the Computer Society of India (90,000 members, close ties to IEEE) has been accepted as a conference supporter.

Academic stream: Approximately 80 papers received for review. Those on-topic have been distributed for review. Michael Arnold and Martin Gibbs (University of Melbourne) tracking the reviews and sending responses. Deadline for camera-ready copy moved back to 31 August.

Professional Stream: Phil Hall working on sponsorships and industry practitioner presenters.

Doctoral Consortium: Additional Doctoral Consortium scheduled for 2-5pm Saturday 27 October, prior to welcome reception, being coordinated by Sophie McKenzie (who attended ISTAS 2010).

Web site: Extensively modified web site up and running.

Conference registration: To be established shortly.

2. Finances

Singapore bank account established including Conference Finance Chair Kam Ho (Victorian Section), who travels to Singapore regularly. Seed money being requested:
IEEE Singapore: SG\$5,000
IEEE Victorian Section: SG\$5,000
IEEE SSIT: SG\$2,500

The Fee schedule is on the web site and has been checked for compliance with IEEE rules. Deadline for early registration is 26 September 2012.

Conference finances being organised to fully comply with IEEE rules, and to include an external audit.

3. SSIT at T&SA: Proposals

Proposal: That we hold an informal Board of Governors meeting with available BoG members and open to any SSIT members at the conference at a time to be scheduled.

Proposal: That we investigate the Conference Membership Recruitment program, offering "free" SSIT membership to anyone who joins IEEE at this conference.

Proposal: That SSIT fund one BoG or office holder representative to attend the conference.

Planning meeting for an IEEE conference on Norbert Wiener in the 21st Century Minutes, Meeting #1, July 2012

Teleconference via Skype: 9pm 13 July 2012 US Eastern Daylight Time
11am 14 July 2012 Australian Eastern Standard Time

Attendance

Greg Adamson, IEEE SSIT

Flo Conway, co-author, *Dark Hero of the Information Age: In search of Norbert Wiener*

Jim Siegelman, co-author, *Dark Hero of the Information Age*

Mengchu Zhou, IEEE Control Systems Society

Arthur Winston, IEEE Boston, for IEEE President (2004)

Apologies

Mary Hawkins, SSIT Australia

Dimitar Filev, IEEE Systems Man and Cybernetics

David Burger, IEEE History Center

1. Introductions

Each participant provided a brief description of their interest in the proposal.

2. The conference concept

GA described the initiative based on ongoing relevance of Norbert Wiener's work. The conference is proposed as an IEEE conference with the following approach:

- A conference with both invited guests and an open call for papers
- Organized according to IEEE conference procedures
- Engaging the local IEEE Operating Unit (OU), Boston Section, according to their preferred methods, times, structures and conference organising procedures.
- Engaging each co-sponsoring OU according to its conference sponsorship process
- Limiting sponsoring organizations (as defined by IEEE) to IEEE OUs while actively engaging participation by non-IEEE organizations in other capacities.

3. Current activities (GA)

Key supporters: Initial list includes Amar Bose, Vint Cerf, Mary Catherine Bateson, Vernor Vinge, Richard Stallman

Web site: at www.21stcenturywiener.org and www.21stcenturywiener.com.

Contact list: List of approximately 140 people who have expressed interest in the conference.

Newsletter: A monthly single sheet newsletter has been sent to the contact list since February 2012 and posted on the web site.

Interested IEEE OUs: SSIT, SMC, CSS, History Center, Boston Section

4. General discussion of next steps

Dates: Two alternative dates are available: March 2014, 50th anniversary of Wiener's death; November 2014, 120th anniversary of Wiener's birth. Selection to be confirmed after location and sponsorship.

Location: *Action:* AW to approach the Boston Section Business Manager regarding the proposed event for a view regarding Boston section endorsement and what this would require from a scheduling and resourcing perspective.

Institution: *Action:* AW will investigate opportunities to engage MIT for this initiative.

MOU: *Action:* GA to circulate a simple draft of the IEEE conference MOU for discussion.

5. Next teleconference

Approximately 4 weeks' time. *Action:* GA to schedule.

Ronald Craig Arkin

INTEREST AND QUALIFICATIONS

My involvement with SSIT dates back to an initial introduction to the society's aims and goals from the late Past President Brian O'Connell, which resulted from his involvement with the IEEE Robotics and Automation Society's Technical Committee on Robot Ethics for which I was a founding co-chair also having served two terms on that society's Administrative Committee). I owe his leadership, enthusiasm, and friendship to my becoming active in SSIT.

For the past three years I have served as an elected member of the SSIT Board of Governors and recently been named a Distinguished Lecturer for the Society. An interview on my research on robot ethics appeared in the Winter 2011 issue of SSIT's Technology and Society Magazine, and I helped organize a special issue on Robots in Warfare for the same publication in Spring 2009. I have presented papers in several SSIT ISTAS Conferences and regularly teach a course I developed at Georgia Tech, entitled Robots and Society, which covers a broad range of ethical issues for our undergraduates and serves to satisfy their ABET ethics requirement. I am actively involved in the worldwide discussions surrounding emerging technologies in society and in particular robotics and the military, speaking frequently at a broad range of venues ranging from philosophical, to defense, to policy, to academic, to theological, and the like, always including a reference to SSIT and its importance.

Professionally I am a Regents' Professor and Associate Dean for Research and Space Planning in the College of Computing at the Georgia Institute of Technology, having been at Georgia Tech since 1987. I was elected a fellow of the IEEE in 2003.

A primary goal of my involvement with SSIT is to ensure that members receive value from the society, whether it is through publications, conferences or electronic activities, all in a fiscally responsible manner. Expanding the membership is crucial and I have supported a number of initiatives toward that end - this however needs continued attention in the years ahead. I believe that my passion for the ethical integration of technology with society, especially robotics, provides me a strong platform both within and without IEEE to further SSIT's mission. I look forward to helping in the continued articulation and furtherance of the Society's goals.

Biosketch

Ronald C. Arkin received the B.S. Degree from the University of Michigan, the M.S. Degree from Stevens Institute of Technology, and a Ph.D. in Computer Science from the University of Massachusetts, Amherst in 1987. He then assumed the position of Assistant Professor in the College of Computing at the Georgia Institute of Technology where he now holds the rank of Regents' Professor and is the Director of the Mobile Robot Laboratory. He also serves as the Associate Dean for Research and Space Planning in the College of Computing at Georgia Tech since October 2008. During 1997-98, Professor Arkin served as STINT visiting Professor at the Centre for Autonomous Systems at the Royal Institute of Technology (KTH) in Stockholm, Sweden. From June-September 2005, Prof. Arkin held a Sabbatical Chair at the Sony Intelligence Dynamics Laboratory in Tokyo, Japan and then served as a member of the Robotics and Artificial Intelligence Group at LAAS/CNRS in Toulouse, France from October 2005-August 2006.

Dr. Arkin's research interests include behavior-based reactive control and action-oriented perception for mobile robots and unmanned aerial vehicles, hybrid deliberative/reactive software architectures, robot survivability, multiagent robotic systems, biorobotics, human-robot interaction, robot ethics, and learning in autonomous systems. He has over 170 technical publications in these areas. Prof. Arkin has written a textbook entitled *Behavior-Based Robotics* published by MIT Press in May 1998, co-edited (with G. Bekey) a book entitled *Robot Colonies* published in 1997, and a book published in Spring 2009 entitled *Governing Lethal Behavior in Autonomous Robots* published by Chapman-Hall (Taylor & Francis). Funding sources have included the National Science Foundation, DARPA, DTRA, U.S. Army, Savannah River Technology Center, Honda R&D, Samsung, C.S. Draper Laboratory, SAIC, NAVAIR, and the Office of Naval Research. Dr. Arkin serves/served as an Associate Editor for *IEEE Intelligent Systems*, *International Journal of Social Robots*, and the *Journal of Environmentally Conscious Manufacturing*, as a member of the Editorial Boards of *Autonomous Robots*, *Machine Intelligence and Robotic Control*, *Journal of Intelligent Service Robotics*, *Journal of Field Robotics*, *International Journal of Advanced Robotic Systems*, and the *Journal of Applied Intelligence*, and is the Series Editor for the MIT Press book series *Intelligent Robotics and Autonomous Agents*. He also serves/served as a consultant for several major companies in the area of intelligent robotic systems. Prof. Arkin serves on the Board of Governors of the IEEE Society on Social Implications of Technology, being elected to a 3-year term (2010-2012) by the membership. He was also elected to serve two consecutive 3-year terms on the Administrative Committee of the IEEE Robotics and Automation Society in both 1999 and 2002, served as a founding co-chair of the IEEE RAS Technical Committee on Robot Ethics from 2004-2009 and co-chair of the Society's Human Rights and Ethics Committee from 2006 to the present, was the IEEE RAS liaison to the IEEE Society on Social Implications of Technology, and also served on the National Science Foundation's Robotics Council from 2001-2002. In 2001, he received the Outstanding Senior Faculty Research Award from the College of Computing at Georgia Tech, in 2011 he received the Outstanding Achievement in Research Award from the University of Massachusetts Computer Science Department, and was named a Distinguished Lecturer for the IEEE Society on Social Implications of Technology in 2012. He was elected a Fellow of the IEEE in 2003 and is a member of the ACM.

Elya B. Joffe

INTEREST AND QUALIFICATIONS

I am honored to have the opportunity to be considered as candidate for the SSIT BoG and to humbly bring forth my vision, my experience from several IEEE Societies and OUs and my insight to the service of SSIT. I have been very active in the IEEE in a number of capacities and am a senior member. Currently, I am President of the Product Safety Engineering Society, past president of the EMC society, member of the IEEE Education Activity Board (EAB), member of the EAB Continuing Professional Education Committee, and founded and chair the IEEE Education Society Ethics Education Committee. Most recently, I initiated the IEEE International Symposium on Ethics in Science, technology and Engineering to be held in 2014.

The IEEE addresses technology! As members of IEEE we have the power to work together and to exchange ideas in a global context, providing us a unique opportunity to make a positive difference to our world.

IEEE faces technological and social challenges, while considering the need for globalization to achieve its mission. As a global organization, IEEE must reach out to professionals throughout the world. It is not to be forgotten, however, that first and foremost IEEE and society are made of... PEOPLE. Complexity of technology requires synergy between technical areas and society. cooperation between professionals around the Globe, which can be enhanced by SSIT. SSIT has therefore a special role in linking together people, society and technology.

My position tagline is "*Benefit from Diversity.*" As Member of SSIT BoG, I will focus on encouraging and facilitating globalization and outreach of SSIT and communication between SSIT and other IEEE entities, and direct involvement of SSIT and its membership in the core of IEEE activities. I will seek to be involved in chapter, member and membership development, and globalization through workshops, tutorials and other manners of visibility. My past experience in the EMCS and PSES has given me outstanding tools and a good infrastructure to start from.

Furthermore, I plan to set my focus as IEEE-HKN BoG member on leadership development and ethics education. SSIT should serve as the foundation for development of the future leaders of IEEE bridging technology and science and social considerations. Therefore, leadership development should be a strategic goal of SSIT. As a BoG member I will strive to enhance leadership development activities through workshops, conferences, webinars and other education outreach programs to chapters and members alike.

Deepak Mathur is a long-time active IEEE volunteer. Recently within SSIT he has played a crucial and important role in reviving the SSIT electronic newsletter. He currently serves as Editor of the SSIT Newsletter. The Newsletter is delivered via email to all SSIT members three times per year. Deepak's efforts have increased the amount of material in, and given a new look to, the newsletter. The enhancements and growth have created more opportunities for SSIT members to learn about other members' activities and work. For example, many international SSIT Chapters now provide updates and reports in each issue of the newsletter. Also, the newsletter provides space for interesting opinion pieces and articles that might not be able to be published in other publications for space reasons.

Deepak earned a Bachelor of Engineering in Electronics and Communication from the Indian Institute of Technology, Roorkee and also holds an MBA. He has served at various volunteer positions in IEEE at the Section and Region level. He was Chair of Gujarat Section (2006-07) and is currently a member of Region10 EXCOM (IEEE Region10 Humanitarian Technology Activities Coordinator).

Deepak is a recipient of '2008 Region10 Outstanding Volunteer Award' and '2010 IEEE MGA Achievement Award'.

Deepak believes that in view of the growth of technology and its growing application in our daily life, social implications of technology should be of concern to all engineers. He believes that if more engineers start looking at social aspects of technology, many problems arising from excessive use and/or mis-use of technologies could be addressed. Deepak further believes that there is a need to spread this awareness among engineers and that SSIT plays a vital role and is an appropriate platform for this effort. Deepak, if elected, would make efforts in this direction.

Short Biographical Note for Lewis Terman

Low Terman received a PhD in EE from Stanford University in 1961, and joined the IBM Research Division the same year, where he worked in advanced semiconductor devices and technology, MOS memory, and chip, circuit and high speed processor design. He served as President of the IBM Academy of Technology 2001-2003, an IBM internal organization modeled after the US National Academies of Science and Engineering. He retired from IBM in 2006

He joined IEEE/IRE in 1958, and has been an active volunteer for over four decades. He was the 2008 IEEE President, after serving as TAB VP, Division 1 Director, and president of the IEEE Electron Devices and Solid-State Circuits societies. He is a Fellow of the IEEE, received the 1995 IEEE Solid-State Circuits Technical Field Award, and is a member of the US National Academy of Engineering.

He is currently SSIT Secretary and member of the Board of Governors, and is active on the IEEE Awards Board, and the IEEE Global Humanitarian Technology Conference Steering Committee.

Statement

SSIT plays a valuable role in IEEE. It is an active group focusing on how technology impacts the world. Its fields of interest are interdisciplinary, extending beyond the confines of any specific technical discipline, and as such these areas can impact many, if not most, of IEEE's members in the course of their careers – including ethics and whistle blowing; public policy in engineering, technology and science; education; privacy and security; and human engineering - using technology to alleviate poverty and improving the quality of life around the world. In 2013, IEEE will determine the organization for its humanitarian activity. SSIT will need to determine its relationship to this effort.

SSIT has the opportunity to increase its membership and impact in a number of ways - through increasing the number of chapters, especially joint chapters; sponsoring small local meetings, conferences and lectures; working with other similar groups across the globe, possibly co-sponsoring activities such as conferences, an/or sessions and panels at conferences; and generally being pro-active to raise the visibility of SSIT and bring the topic of social implications of technology to a broader audience.

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OLD STATEMENT

The world, the profession, and IEEE are all increasingly aware of the critical role of technology in solving societal problems. IEEE, with its very broad range of technologies,

and its members who have technical depth in those technologies, is especially suited to contribute in this area, and one of my major objectives as 2008 IEEE President, was to get IEEE more involved in humanitarian activity

Current IEEE involvements range from the OU and corporate level activities to activities by groups and individual members. These activities fit both IEEE's Mission and Vision of advancing technology for the benefit of humanity and improving global conditions, and the scope of the SSIT, which includes environmental, health and safety implications of technology.

IEEE humanitarian activities include the Human-Technology Interactions media event held in March, the Humanitarian Technology Challenge meeting held in June, a Humanitarian Conference scheduled for August in India, an on-going leadership role in GEOSS (a multi-year international effort on monitoring the state of the planet), and the just concluded IEEE Presidents' Competition, which drew over 200 entries world-wide.

It is very important that IEEE continue to expand its role in humanitarian activity. I am chair of the IEEE Humanitarian Activities Ad Hoc Committee, which is working to understand how IEEE can fit into the overall world-wide picture, and through the Humanitarian Technology Network, foster increased humanitarian activity, and nurture interaction and synergy between the IEEE, humanitarian organization, industry, academia, and funding organizations. I look to involvement with SSIT as an important part of this effort.

Kimball Williams retired as a Technical Fellow from Denso Americas / Southfield, MI, where he served as the Senior Engineering Manager and technical lead for the Electromagnetic (EMC) test laboratory. He holds a BSEE degree from Lawrence Technological University / Southfield, MI. His professional career includes; Principal EMC Engineer / Eaton Corporation - 26 years, Principal Designated Engineer for Underwriters Laboratories - 3 years, Senior Manager & Technical Fellow / Denso - 7 years.

His IEEE experience includes; EMC Society Board of Directors and Society past President, where he authored a newsletter article promoting SSIT. He is a member of the IEEE EMC Society Standards Committee & Standards Association, the Technology Management Council Board of Governors, Chair of the IEEE International EMC2008 Symposium in Detroit, and current Chair of the Southeastern Michigan IEEE Section where he is working to establish an SSIT Chapter and frequently lectures on engineering ethics.

“The events of the past few years have emphasized the ‘Social Implications of Technology’ in concrete terms as technology is so often at the heart of social change. At the same time it is obvious that the technological implications of the perception of technology by society, and the decisions made by our political leadership as a result of those perceptions have a direct bearing on directions that our technology is allowed to develop, and the available funding to pursue those avenues of research and development. The issues are in the present, and extend into the future. Present actions by IEEE in advising our political leadership, and preparation of the future in terms of STEM activities to guide students into Science, Technology, Engineering and Mathematics will strongly influence the future in which our children and grandchildren will live and work. SSIT can be a strong and rational voice in building and guiding the evolution of this scientific and social matrix, and it should declare its positions and opinions strongly, most especially where they differ from the general consensus. “

Report of SSIT Distinguished Lecturer Committee-July 2012

1. From Janet Rochester:

"I gave my talk, "Becoming a Professional" to the Women in Engineering Affinity Group at the Instituto Superior Técnico (IST), Lisbon, Portugal, on 7 May 2012.

Future presentations: I have a schedule set to give the same presentation to the WIE groups at the Federal University of ABC and the University of Campinas (Brazil) on 14 and 15 August, respectively. I may also make the same presentation at the university in Ilha Solteira on 20 August."

Janet will be getting some support from WIE for the Brazil trip but will also need to spend the unused portion of the funds we allocated for the Portugal trip (\$554). Janet was not able to get any WIE funding for the Portugal trip because the event was over before the WIE funding meeting was held.

2. Luis Kuhn delivered a DL on global security in France on July 10 (co-billed as a Computer Society and EMBS DL) as well as seven other lectures in other capacities.

3. Many of our other distinguished lecturers are active speakers in other capacities. Ron Arkin reports delivering seven lectures since April.

4. See below for the answers to the questions we had regarding James Giordano's request to become an SSIT Distinguished Lecturer. At the meeting I will move that we approve him for this role,

There are many videos available of Prof. Giordano's talks on YouTube. A couple of them include:

Nour Foundation, Toward a New Morality "Neuroscience, Reverence and Moral Sense": <http://www.youtube.com/watch?v=X7K9L7gk2Jk>
Cafe Scientifique Lecture "Predictive Neurotechnology- Minority Report and More": <http://youtu.be/EM9D0pmPFjU>

He is a member of SSIT: Membership number: 91294276

List of 3-4 potential topics for listing on our Distinguished Lecturer webpage.

Neurotechnology: Practical and ethical issues at the intersection of brain science and society
Predictive neurotechnologies in national security and defense:
Social obligation or Minority Report?
Neuroimaging pain: Technical, neuroethical, and socio-legal issues
Neurotechnology, psychiatry, and society: Avoiding Icarus' folly and Faustian bargains

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Joseph R. Herkert
Lincoln Associate Professor of Ethics and Technology
School of Letters and Sciences
Consortium for Science, Policy & Outcomes

Arizona State University
250D Santa Catalina Hall

7271 E. Sonoran Arroyo
Mesa, AZ 85212

SSIT Year-on-year membership gain for the first time since Feb 2011

Description	Responsibility Membership Committee Chair	Benefits	
<p>SSIT membership has been in decline for a number of years, particularly in 2011. For June 2012, for the first time in 16 months, the year-on-year membership has increased modestly, from 1,603 to 1,615. (Because of the membership renewal cycle, year-on-year variation is the most meaningful comparison.)</p> <p>Nevertheless we are still significantly lower than our 20 year peak of 2,858 in 1991. While SSIT is highly relevant to many IEEE members, most are unaware of its existence. As a first step I propose that SSIT membership needs to be raised to 1% of IEEE membership, which would equate to approximately 3,000 higher grade members and 1,000 student members. Initially four steps are proposed:</p> <ol style="list-style-type: none"> 1. Visibility: Ask members to each encourage one other person, including an IEEE member not in SSIT, to join in the current membership renewal round. 2. Accessibility: Understand why student membership has declined from a peak of 337 to the current 29 and is still falling. 3. Reach: Examine geographical distribution of members for opportunities for growth including encouraging those in areas with sufficient members to form a chapter. 4. Value: Identify additional products or services that make SSIT membership a compelling proposition (additional to T&S, ISTAS, chapters, Technical meetings). 	Category <input type="checkbox"/> Initiatives	<input type="checkbox"/> Membership growth <input type="checkbox"/> Future planning <input type="checkbox"/> Financial stability	
Update since last report			
Visibility Four renewal reminder letters have been prepared and were sent in May 2012: <ul style="list-style-type: none"> •Reminders to 2011 members who hadn't renewed •Reminders to previous members who hadn't renewed •In invitation letter to non-members with an interest profile matching SSIT •A welcome letter to join SSIT members. 			
Proposed next steps			
Visibility <ul style="list-style-type: none"> •Submit proposal for Computer special issue through BoG e-mails. Membership Development campaigns: <ul style="list-style-type: none"> •Track the continuing effect of the membership letters, and prepare to link up to future membership campaigns, eg the "15 months membership for one year's subscription" available from September. •Target T&SA 2012 attendees for membership 			
Assumptions			
<ol style="list-style-type: none"> 1. Low SSIT membership is not due to any objective limitations. 2. Low student membership can be addressed if we find the right approach. 3. Any cost burden resulting from having additional members can be met through existing resources for up to two years. 4. While 1% of IEEE in SSIT is an immediate goal, it doesn't represent SSIT's full potential. 5. At some reasonable level, but in any case below 5,000 members, additional membership will provide a financial benefit to SSIT. 6. The planned changes to IEEE society membership will not conflict with recruiting additional members now (but need to tie changes to this). 7. Membership will grow in areas with an active chapter; where we have 8 or more members there is a reasonable possibility of achieving a functioning chapter (which requires a minimum 12 higher grade members). 			
Risks and Dependencies			
<ol style="list-style-type: none"> 1. Poor experience of new members may lead to attrition among new members after their first year: SSIT needs to promote attractive products and services to new members. 2. Recent experience does not support a goal of 1,000 student members. Approach needs to include an understanding of past success factors in recruiting student members. 3. Sustaining student membership after graduation is an ongoing IEEE challenge. 4. Additional chapters will raise the effort required in chapter coordination: BoG needs to devote additional resources to providing advice and assistance to new chapters, possibly asking existing chapters to "buddy" a new chapter. 			
Targets			
Goal	October 2011/June 2012	Target December 2013	
Affiliates	26	26	
Associates	76	76	
Fellows	17	17	
Graduates	45	45	
Life Fellows	49	49	
Life Members	155	155	
Life Senior Members	115	115	
Members	932	2,117	
Senior Members	187	400	
Students	41	1,000	
Total	1,643	4,000	

IEEE SSIT Membership proposal: "1% of IEEE membership by 2013" Mar. 2012

Milestones & Key Actions		
Action	Target date	Owner
1. Establish membership committee	Complete	
2. Access current geographical spread and historical total SSIT data	Complete	
3. Provide proposed approach for BoG approval	Complete	
4. For target membership numbers and types, determine SSIT financial effect	December 11	SSIT Treasurer
5. <u>Visibility</u> : Begin program of visible active recruitment, including encouraging existing members to recruit others, and articles in all Region newsletters and the SSIT Newsletter .	Ongoing	Membership committee
6. <u>Accessibility</u> : Identify and remove any IEEE organisational barriers to SSIT student membership; consider decision to appoint student representative to BoG and each chapter committee	December 2012	Membership committee
7. <u>Reach</u> : Identify current chapter coverage. In areas without chapters with 8 or more SSIT members circulate Section or Country-specific invitations to establish chapters, with a goal of creating 4 new chapters per year . Consider buddying existing chapters to new chapters and initiate this through an " SSIT chapters congress " via teleconference/Skype . Consider Joint chapters , coordinating this with Division VI.	December 2012	SSIT Chapter Chair
8. <u>Value</u> : Expand suite of products and services to provide value and engagement (in addition to T&S, ISTAS, the chapters, technical meetings). Goal of 2 new products/services per year	June 2013	Membership committee
9. Provide progress reports to BoG meetings	Ongoing	GA