**e-ScienceTalk**

Report on Survey of ISGTW Readers and Annual Metrics

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**Abstract**

This report provides results and analysis for the 2012 iSGTWreadership survey, in which 201 readers completed an online survey with comments. The respondents generally reported that content was pitched at a suitable level and that they were happy with the breadth of topics covered. The percentage of women who read our publication has increased significantly over the last year. The percentage of people who describe themselves as working in the media has also continued to increase from last year. However, we have had less success in terms of attracting younger readers. For the first time, we asked readers to tell us about the actions they have taken as a result of reading articles on our site. The suggest that iSGTW may have significant wider impact. Finally, the results suggest that further steps are needed to promote the events/announcements section of our site more effectively.

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**I. DELIVERY SLIP**

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| --- | --- | --- | --- |
|  | **Name** | **Partner/Activity** | **Date** |
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| **Reviewed by** | **Moderator:**  **Reviewers:** | Catherine Gater EGI.eu  Various | 28/08/2012 |
| **Approved by** | **AMB & PMB** |  | 30/08/2012 |

**II. DOCUMENT LOG**

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| 1 | 22/08/2011 | First draft | Andrew Purcell/CERN |
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| 3 |  |  |  |

**III. APPLICATION AREA**

This document is a formal deliverable for the European Commission, applicable to all members of the e‐ScienceTalk project and its beneficiaries and collaborating projects.

**IV. DOCUMENT AMENDMENT PROCEDURE**

Amendments, comments and suggestions should be sent to the authors.

**V. PROJECT SUMMARY**

Over the last 10 years, the European Commission and governments have invested substantial funds

in distributed computing infrastructures. Scientists have access to state‐of‐the‐art computational and data resources located around the world, putting European research into a leading position to

address the greatest challenges facing us today, such as climate change, pandemics and sustainable

energy. The advent of the European Grid Infrastructure, combined with the blurring of boundaries

between grids, clouds, supercomputing networks and volunteer grids, means that a clear consistent

source of information aimed at non‐experts is now more important than ever, through dissemination projects that cross national boundaries.

**Objectives:**

* e‐ScienceTalk will build on the achievements of the GridTalk project in bringing the success

stories of Europe’s e‐Infrastructure to policy makers in government and business, to the

scientific community and to the general public.

* e‐ScienceTalk will work with EGI‐InSPIRE and other collaborating projects to expand the

scope of the existing GridTalk outputs, and to report on the interactions of grids with e‐

Infrastructures such as cloud computing and supercomputing.

* The project will explore options for the sustainability of e‐ScienceTalk’s products.
* e‐ScienceTalk will produce a series of reports aimed at policy makers to disseminate key

policy issues underpinning grid and e‐Infrastructure development in Europe. The project will

also coordinate e‐concertation activities.

* The GridCafé, GridCast and GridGuide suite of websites will cover new topics and explore

novel web technologies; they will integrate closely with GridPP’s Real Time Monitor,

combining live views of grid activity with the human aspects of computing.

* The growing weekly publication, International Science Grid This Week (iSGTW) will bring

news and events to the existing and potential e‐Science community.

**VI. EXECUTIVE SUMMARY**

This report provides results and analysis for the 2012 iSGTWreadership survey, in which 201

readers completed a multiple choice survey and provided comments. This is equivalent to 2.5% of the 8100 subscribers, an increase compared to the response rate of 137 readers, 1.7% of the readership, for the survey issued in 2011 [R5]. The results from the survey show that we are still highly reliant on our weekly newsletter for driving the majority of traffic to our site. While this does have important implications in terms of the type of articles we write and their appeal to this ‘core’ audience, it does also suggest that increasing readership of the site may be most easily achieved by targeting the ‘low-hanging fruit’ available on Twitter, Facebook and Google+. The survey results also suggest that our readers are fairly dedicated, with over half of them taking the time to read the majority of articles published in a given week. Interest is split roughly evenly between the weekly spotlight, visual and features.

These results suggest that we have a highly engaged audience, with 81 per cent of respondents saying that they have ‘discussed or forwarded an article or issue’. The results also reflect fairly positively on the impact of our publication, with respondents reporting that they have attended an event, applied for a job or contacted researchers based on information they have found on our site. Over one fifth of respondents also said that they have cited or linked to iSGTW in a blog, paper, poster or talk. Again, as with other results from the survey, this adds further credence to our general impression of our audience being relatively small, but highly engaged. Among the respondents who selected the option ‘other’, one respondent reported that iSGTW had helped them to come up with a new research idea and another reported that they had gotten a grant as a result of their interaction with iSGTW.

While the majority of our readership is still comprised of men, the proportion of women who read iSGTW has now risen markedly since 2008, when the figure was at just 15 per cent. This year’s figure of just under a quarter does, however, represent a significant jump from the 18 per cent reported last year. We believe that this is likely to be a direct result of our policy of publishing articles which are specifically targeted at women in science. We also have a special section on women in the grid on our site, which may have helped to boost female readership. However, we still have very few younger readers. As with last year, 31-40 is the largest category, followed by 41-50. The growth in readers aged 51-60 has continued from last year as well. This year’s figure of 20 per cent represents a 5 per cent increase on last year and almost a doubling since 2010.

We have seen the percentage of readers working in the media increase again this year, following our attempts to attract more science communicators to the site. In the survey, 12 per cent of users described themselves as working in the media this year. However, the most popular categories were ‘IT professional (employed by university/government, research facility)’ and ‘Academic researcher’ which scored 36 per cent and 28 per cent respectively.

Only 52 per cent of respondents said they agreed or strongly agreed with the statement that they use iSGTW to keep informed about events and announcements. Almost a fifth of respondents said that they either disagreed or strongly disagreed with this statement. This suggests that our events section is not very popular with users. We will work to overcome this by linking to event announcements directly from related stories in the future.

In terms of the areas covered by iSGTW, grid, cloud and HPC/supercomputing are all very popular subjects, with large portions of our audience directly involved in working in these areas. There are also a large number of readers who are involved in cluster computing. However, given that 18 per cent of respondents described themselves as being not interested in cluster and only 46 per cent said they like to read about it, this was probably the least-popular subject listed.

Volunteer grid computing had the highest number of people who described themselves as not being interested, with networks also scoring badly. However, opinion on these subjects seems to be highly polarized: both subjects scored very well in terms of the number of people who said they like reading about them, with volunteer grid computing actually coming out top in this category.

Similarly to last year, when asking readers what they like to read about,the topics were split into two categories, the academic topics (physics and astronomy, humanities, etc) and the infrastructure-related topics (workflow management, interoperability and standards, etc). As it did last year, future computing technology again proved to be the most popular topic overall. Equally, physics and astronomy once more proved to be the most popular of the academic topics, followed by life sciences (including health, medical and genomics), and then Earth and climate sciences. Humanities were the least popular academic topic. The ranking for academic topics is a carbon copy of the results attained last year. This suggests that these results accurately reflect our readers’ tastes. In terms of the infrastructure-related topics, we also attained similar results to last year, with future computing technology once again proving the most popular topic and workflow management proving the least popular topic. A total of 44 people suggested other topics they were interested in. However, there was very little overlap here and there were no topics suggested which stood out as particularly popular. Some of the topics which were suggested more than once however, included: data management, materials science and the arts.

We will use this feedback regarding user preferences to shape our editorial policy in the future and ensure that the topics we cover reflect the interests of our readership. Equally, this feedback is vital in terms of helping us to pitch articles at both the right length and the right level of technical difficulty. At the same time, we will seek to address those areas in which we scored badly and will seek to increase readership from under-represented demographics, such as young people. Finally, we will take inspiration from the suggestions/comments left by respondents in the open section at the end of the survey to help guide further development of our site.

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# INTRODUCTION

Since June 2007, iSGTW has been running surveys [R1,2,3,4,5]. Under the GridTalk project, half the readers were surveyed every six months (so the entire readership was polled once a year). Now, under the e-ScienceTalk project, all the readers are surveyed once per year at the same time. All the surveys have been conducted using an online tool called Zoomerang[[1]](#footnote-1). The surveys are generally quite short (14 questions this year) and many of the questions are identical year to year in order to help compare the results.

With the launch of the new website in 2011, e-ScienceTalk expanded its coverage of grid computing to include cloud computing, high performance computing, volunteer computing and any other type of distributed computing infrastructure. Consequently, as with last year’s survey, we asked readers to tell us what their relationship to ‘cyberinfrastructure/e-infrastructure’ is, rather than asking specifically what kind of what type of ‘grid projects’ they are involved in, as we had done in previous years. We also asked readers to tell us which aspects of cyberinfrastructure/e-infrastructure they are interested in reading about.

Beyond this, most of the questions remained similar to those asked in previous years, thus enabling us to assess our performance over a number of years. The one major exception to this was a question regarding what action people had taken as a result of reading an article on iSGTW (e.g. sharing online, citing in a paper or a talk, sourcing an image, applying for a job, attending an event, etc.). We asked this question in order to help us better assess our impact.

At the end of the survey, participants were asked to enter their email address in the comment section if they wanted to go in the running to win a prize (an iSGTW laptop sleeve). We solicited responses by putting a link to the survey in the spotlight section of the iSGTW newsletter on 23 May, which we repeated on 4 July. We also sent out an email to every subscriber in June asking them to complete the survey. As with previous years, we tried to keep the survey relatively short, so as not to negatively impact upon completion rates. This year, 226 people completed our survey equivalent to 2.5% of the 8100 subscribers, an increase compared to the response rate of 137 readers, 1.7% of the readership, for the survey issued in 2011 [R5].

# overview of questions for summer 2012 survey

1. **How do you receive iSGTW news?**

*(Please select all that apply)*

□ I subscribe to the weekly email

□ iSGTW website

□ @isgtw twitter

□ Facebook page

□ RSS feed

□ On my mobile

□ Google Plus

1. **What is your profession?**

□ Student

□ Scientist/researcher (industry)

□ Academic researcher

□ IT professional (employed by industry)

□ IT professional (employed by university/government, research facility)

□ Funding body

□ Media/communications

□ Other, please specify

1. **What is your relationship to cyberinfrastructure/e-infrastructure?**

□ User (scientists, researchers, and scholars)

□ Application developer

□ Site administrator

□ Funding program manager

□ Cyberinfrastructure/e-infrastructure project staff

□ Volunteer computing participant

□ General interest in computers and science

□ Other, please specify

1. **Age group**

□ < 21

□ 21 - 30

□ 31 - 40

□ 41 - 50

□ 51 - 60

□ >60

1. **Gender**

□ Male

□ Female

1. **Which one of the following sections of the iSGTW website do you regularly read or visit?** *(Please tick all that apply)*

□ All the articles

□ Most of the articles (3–5 articles)

□ The top feature

□ The weekly visual

□ The weekly spotlight

□ Around the web (news, blogs, announcements)

□ Archive

□ Community Hub or The 'learn' section

□ Other, please specify

1. **What is your level of engagement with the following types of cyberinfrastructure/e-infrastructure?**

*1. Not interested 2. I like to read about 3. I'm involved with*

Cluster

□ 1 □ 2 □ 3

Volunteer grid computing

□ 1 □ 2 □ 3

Grid

□ 1 □ 2 □ 3

Cloud

□ 1 □ 2 □ 3

High-performance computing/supercomputing

□ 1 □ 2 □ 3

Networks

□ 1 □ 2 □ 3

1. **Please mark each subject as “somewhat interested,” “interested,” or “very interested”. If you are interested in a subject not listed, please tell us in comments (Q10).**
2. *somewhat interested 2. interested 3. very interested*

physics and astronomy

□ 1 □ 2 □ 3

life sciences (including health, medical and genomics)

□ 1 □ 2 □ 3

Humanities

□ 1 □ 2 □ 3

Earth and climate sciences

□ 1 □ 2 □ 3

social sciences

□ 1 □ 2 □ 3

future computing technology

□ 1 □ 2 □ 3

interoperability and standards

□ 1 □ 2 □ 3

parallel programming

□ 1 □ 2 □ 3

science gateways/portals/hubs

□ 1 □ 2 □ 3

workflow management

□ 1 □ 2 □ 3

open science/ open data

□ 1 □ 2 □ 3

1. **Are you interested in any topics not listed in questions 7 and 8?**

*(Leave blank if you wish)*

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1. **What actions have you taken as a result of reading an iSGTW article?**

*(Select all that apply)*

□ Discussed or forwarded an article or issue (emailed, tweeted etc.)

□ Saved or bookmarked an article or issue

□ Recommended the newsletter to a colleague

□ Cited or linked to iSGTW in a blog, paper, poster or talk

□ Attended an event after reading an iSGTW announcement

□ Contributed to the newsletter

□ Sourced a photo or image from the magazine

□ Contacted an expert through the profile section

□ Submitted or searched for a job or event advertisement

□ Other, please specify

1. **To what extent do you agree/disagree with the following statements.**
2. *strongly disagree 2. disagree 3. neutral 4. agree 5. strongly agree*

The content is at the right technical level for me

□ 1 □ 2 □ 3 □ 4 □ 5

iSGTW is easy to navigate

□ 1 □ 2 □ 3 □ 4 □ 5

iSGTW covers news items from around the world

□ 1 □ 2 □ 3 □ 4 □ 5

There is a good balance of articles on grids, clouds, high performance computing/supercomputing, and volunteer computing.

□ 1 □ 2 □ 3 □ 4 □ 5

I would consider writing, contributing, or posting news and/or announcements to iSGTW.

□ 1 □ 2 □ 3 □ 4 □ 5

I use iSGTW to keep up-to-date with technical developments in all areas of e-science/cyber-infrastructure.

□ 1 □ 2 □ 3 □ 4 □ 5

I use iSGTW to keep informed about events and announcements.

□ 1 □ 2 □ 3 □ 4 □ 5

I have found out about tools, services, resources, projects, initiatives, and/or potential collaborators of which I was previously unaware of.

□ 1 □ 2 □ 3 □ 4 □ 5

1. **Do you have any other comments or suggestions for iSGTW?**

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1. **We are interested in finding out more from our readers. If you would be happy to be contacted for a short follow-up interview, please add your email address below.**

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1. **Add your email here to win an iSGTW prize**

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# QUESTIONS AND RESPONSES IN DETAIL

1. **How do you receive iSGTW news?**

*(Please select all that apply)*

|  |  |  |
| --- | --- | --- |
| I subscribe to the weekly email | 212 | 94% |
| iSGTW website | 29 | 13% |
| @isgtw twitter | 11 | 5% |
| Facebook page | 4 | 2% |
| RSS feed | 6 | 3% |
| On my mobile | 3 | 1% |
| Google Plus | 4 | 2% |

**Conclusions/Recommendations**

Subscribers to our weekly email newsletter clearly make up the overwhelming majority of our audience. While this does have important implications in terms of the type of articles we write and their appeal to this ‘core’ audience, it does also suggest that increasing readership of the site may be most easily achieved by targeting the ‘low-hanging fruit’ available on Twitter, Facebook and Google+. The fact that such a tiny proportion of our readers access the site from their mobiles may be a direct result of the site primarily consisting of relatively long, in-depth articles. However, further research would be required to ascertain if (a) this link really does exist and (b) if it is indeed causal in nature.

1. **What is your profession?**

|  |  |  |
| --- | --- | --- |
| Student | 9 | 4% |
| Scientist/researcher (industry) | 15 | 7% |
| Academic researcher | 64 | 28% |
| IT professional (employed by industry) | 15 | 7% |
| IT professional (employed by university/government, research facility) | 82 | 36% |
| Funding body | 1 | 0% |
| Media/communications | 26 | 12% |
| Other, please specify | 39 | 17% |

**Conclusions/Recommendations**

In previous years, we have provided categories labeled ‘Scientist/Academic’ and ‘IT professional’, which have tended to dominate. However, by subdividing the category ‘IT professional’ into those who work in industry versus those who work in universities or government research facilities, we can see that there are actually relatively few IT professionals with an industry background who read our site. A similar pattern was observed following the subdivision of the category ‘Scientist/Academic’ into industry versus academic researchers. This provides us with key information regarding not only the kind of people are using our site, but also what kind of people we can target content towards in the future, so as to increase our impact. Finally, the third-largest defined category this year was ‘Media/communications’, which suggests that people may be using the site as a source for news stories, as evidenced by the wider-media pick up on several of our articles this year, for example by *Wired*, *Symmetry* and *Discovery News*.

1. **What is your relationship to cyberinfrastructure/e-infrastructure?**

|  |  |  |
| --- | --- | --- |
| User (scientists, researchers, and scholars) | 98 | 44% |
| Application developer | 52 | 23% |
| Site administrator | 48 | 21% |
| Funding program manager | 10 | 4% |
| Cyberinfrastructure/e-infrastructure project staff | 71 | 32% |
| Volunteer computing participant | 13 | 6% |
| General interest in computers and science | 59 | 26% |
| Other, please specify | 18 | 8% |

**Conclusions/Recommendations**

Since respondents were able to select multiple categories for this question, it is worth noting that the percentage scores do not add up to give a total of 100. Hence, the score of 44% for the category ‘user’ is represented by roughly a quarter in the pie chart above. This was the most popular category by far, which implies that our readers are likely to have a relatively high level of specialist knowledge. In addition, several of the respondents who ticked ‘other’ listed themselves as being in jobs related to science communication, which corresponds well with the 12 per cent of respondents who described themselves as working in ‘Media/communications’ in question 2. Generally, these results, as with those from previous years, would seem to demonstrate that we have few

readers who are not involved directly in distributed computing in some way, or who are not in

media/communications.

1. **Age group**

|  |  |  |
| --- | --- | --- |
| < 21 | 0 | 0% |
| 21 - 30 | 25 | 11% |
| 31 - 40 | 69 | 31% |
| 41 - 50 | 62 | 27% |
| 51 - 60 | 45 | 20% |
| >60 | 25 | 11% |

**Conclusions/Recommendations**

These results are almost identical to those from last year. Again, 31-40 is the largest category, followed by 41-50. The growth in readers aged 51-60 has continued from last year as well. This year’s figure of 20 per cent represents a 5 per cent increase on last year and almost a doubling since 2010. Unfortunately, the number of young readers has remained extremely low, despite efforts to target those under 30. These efforts have primarily consisted of work to increase our presence on social media and news aggregator sites, including Facebook, Twitter, Google+, Reddit and StumbleUpon. While this may suggest that our social media strategy has not been as successful in attracting younger readers as hoped, the results from question 1 indicate that iSGTW’s social media presence has significantly increased, now accounting for roughly 10% of our readership (this may well be an underestimate, given that occasional visitors to the site are probably less likely to have completed our survey, even though the survey link was available through social media channels). Perhaps we should therefore begin to view social media less as a way to specifically target a younger audience given the shifting demographic of their users, particularly with sites like Twitter, where users aged 25 to 34 represent the largest age group and 35-to-44-year-olds outnumber 18-to-24-year-olds almost 2 to 1. There are even more users aged 45-54 than there are aged 18-24 on Twitter. Instead, social media should be seen as a way to broaden and increase readership across all age groups. Additional strategies will be needed to target younger readers, perhaps through partnerships with training and summer schools such as the GridKa workshop[[2]](#footnote-2), competitions targeted at early career stage scientists and topics of interest to younger readers, such as on careers and starting out in research.

1. **Gender**

|  |  |  |
| --- | --- | --- |
| Male | 171 | 76% |
| Female | 54 | 24% |

**Conclusions/Recommendations**

While the majority of our readership is still comprised of men, the proportion of women who read iSGTW has now risen markedly since 2008, when the figure was at just 15%. This year’s figure of just under a quarter does, however, represent a significant jump from the 18% reported last year. We believe that this is likely to be a direct result of our policy of publishing articles which are specifically targeted at women in science. We also have a special section on women in the grid on our site, which may have helped to boost female readership. Despite this progress, we feel that the most significant barrier to us making further progress towards addressing this gender imbalance is the fact that it reflects wider gender imbalances which exist both within the IT profession and within science as a whole. However, by continuing to highlight the work carried out by women in our field of computing, we hope to at least play a small part in redressing these wider gender imbalances. We also intend to work with projects through their gender action plans to promote the publication to women who may be interested.

1. **Which one of the following sections of the iSGTW website do you regularly read or visit?** *(Please tick all that apply)*

|  |  |  |
| --- | --- | --- |
| All the articles | 19 | 9% |
| Most of the articles (3–5 articles) | 116 | 52% |
| The top feature | 56 | 25% |
| The weekly visual | 58 | 26% |
| The weekly spotlight | 45 | 20% |
| Around the web (news, blogs, announcements) | 31 | 14% |
| Archive | 6 | 3% |
| Community Hub or The 'learn' section | 9 | 4% |
| Other, please specify | 19 | 9% |

**Conclusions/Recommendations**

These results suggest that our readers are fairly dedicated, with over half of them taking the time to read the majority of articles published in a given week. Of course, given that the survey respondents are a sub-set of a self-selected group, it is highly likely that those who chose to complete the survey are those who tend to read the largest amount of articles on our site and thus have a vested interest in helping us to improve our site through responding to the survey. The results also show that interest is split roughly evenly between the weekly spotlight, visual and features. Where people selected ‘other’, they generally added comments explaining that they tend to simply read those articles which look interesting to them or which fall within their particular field of interest in any given week. This highlights the need for articles to have snappy straps, grabbing headlines and appealing pictures, so as to help them compete for attention against other stories both on our own site and elsewhere. This is particularly important for increasing our traffic from content aggregator sites.

1. **What is your level of engagement with the following types of cyberinfrastructure/e-infrastructure?**

*1. Not interested 2. I like to read about 3. I'm involved with*

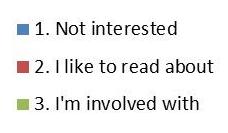
Cluster

Volunteer grid computing

Networks

High-performance computing/supercomputing

Grid



Cloud

|  |  |  |  |
| --- | --- | --- | --- |
| *Top number is the count of respondents selecting the option. Bottom % is per cent of the total respondents selecting the option.* | **1. Not interested** | **2. I like to read about** | **3. I'm involved with** |
| Cluster | 38 | 100 | 79 |
| 18% | 46% | 36% |
| Volunteer grid computing | 42 | 118 | 43 |
| 21% | 58% | 21% |
| Grid | 13 | 93 | 111 |
| 6% | 43% | 51% |
| Cloud | 16 | 116 | 80 |
| 8% | 55% | 38% |
| High-performance computing/supercomputing | 10 | 109 | 98 |
| 5% | 50% | 45% |
| Networks | 35 | 116 | 61 |
| 17% | 55% | 29% |

Not interested

I like to read about

I’m involved with

**Conclusions/Recommendations**

According to these responses, grid, cloud and HPC/supercomputing are all very popular subjects, with large portions of our audience directly involved in working in these areas. There are also a large number of readers who are involved in cluster computing. However, given that 18 per cent of respondents described themselves as being not interested in cluster and only 46 per cent said they like to read about it, this was probably the least-popular subject listed.

Volunteer grid computing had the highest number of people who described themselves as not being interested, with networks also scoring badly. However, opinion on these subjects seems to be highly polarized: both subjects scored very well in terms of the number of people who said they like reading about them, with volunteer grid computing actually coming out top in this category. In last year’s readership survey, we identified volunteer grid computing as a key subject, potentially possessing a very large audience. As such, we have collaborated with volunteer computing communities, such as the Citizen Cyberscience Centre at CERN and BOINC, in an attempt to improve the popularity of volunteer computing on our site. While this may not have achieved a significant reduction in the proportion of readers who describe themselves as uninterested in volunteer grid computing, it has led to a slight increase in the number of people who say they like to read about the subject from last year (up 3 per cent).

In future reader surveys, it would perhaps be advantageous to separate the category ‘I’m involved with’ from the other two categories. Given that only one category was selected by each respondent, those subject areas with fewer people working in them, inevitably scored more highly on the other two categories. This could go some way to explaining the seemingly highly polarized opinion on subjects such as volunteer grid computing, which scored highest on both the ‘I like to read about’ and ‘Not interested’ categories, and which the least number of respondents said they were involved with.

1. **Please mark each subject as “somewhat interested,” “interested,” or “very interested”. If you are interested in a subject not listed, please tell us in comments (Q10).**
2. *somewhat interested 2. interested 3. very interested*

**Conclusions/Recommendations**

Similarly to last year,the topics have been split into two categories, the academic topics (physics and

astronomy, humanities, etc) and the infrastructure-related topics (workflow management,

interoperability and standards, etc). As it did last year, future computing technology has again proved the most popular topic overall.

Equally, physics and astronomy once more proved to be the most popular of the academic topics, followed by life sciences (including health, medical and genomics), and then Earth and climate sciences. Humanities were the least popular academic topic. The ranking for academic topics is a carbon copy of that which we attained last year. This suggests that these results accurately reflect our readers’ tastes. As such, we will continue to use these preferences to shape the proportion of articles we publish covering each of these topics.

In terms of the infra-structure related topics, we also attained similar results to last year, with future computing technology once again proving the most popular topic and workflow management proving the least popular topic. As with the academic topics, we will continue to use this information to shape the choice of topics we write about in the future.

Finally, it is worth noting that open science/open data also proved to be a highly popular topic, which may be a direct result of the high level of coverage we have dedicated to this topic over recent months. It may also reflect a wider, *Zeitgeist* shift in public opinion towards greater interest in open science, open data and related fields. Thus, we intend to continue dedicating a relatively high level of coverage to this topic.

|  |  |  |  |
| --- | --- | --- | --- |
| *Top number is the count of respondents selecting the option. Bottom % is per cent of the total respondents selecting the option.* | **1. Somewhat interested** | **2. Interested** | **3. Very interested** |
| physics and astronomy | 47 | 66 | 106 |
| 21% | 30% | 48% |
| life sciences (including health, medical and genomics) | 40 | 97 | 82 |
| 18% | 44% | 37% |
| humanities | 87 | 79 | 45 |
| 41% | 37% | 21% |
| Earth and climate sciences | 37 | 102 | 78 |
| 17% | 47% | 36% |
| social sciences | 86 | 86 | 37 |
| 41% | 41% | 18% |
| future computing technology | 16 | 64 | 140 |
| 7% | 29% | 64% |
| interoperability and standards | 60 | 97 | 61 |
| 28% | 44% | 28% |
| parallel programming | 67 | 83 | 62 |
| 32% | 39% | 29% |
| science gateways/portals/hubs | 52 | 103 | 64 |
| 24% | 47% | 29% |
| workflow management | 84 | 99 | 30 |
| 39% | 46% | 14% |
| open science/ open data | 29 | 86 | 104 |
| 13% | 39% | 47% |

1. **Are you interested in any topics not listed in questions 7 and 8?**

*(Leave blank if you wish)*

**Conclusions/Recommendations**

In total 44 people suggested other topics they were interested in. However, there was very little overlap here and there were no topics suggested which stood out as particularly popular. Some of the topics which were suggested more than once, however, include: data management, materials science and the arts (although this possibly includes some overlap with the topic ‘humanities’ offered as a choice in question 8).

1. **What actions have you taken as a result of reading an iSGTW article?**

*(Select all that apply)*

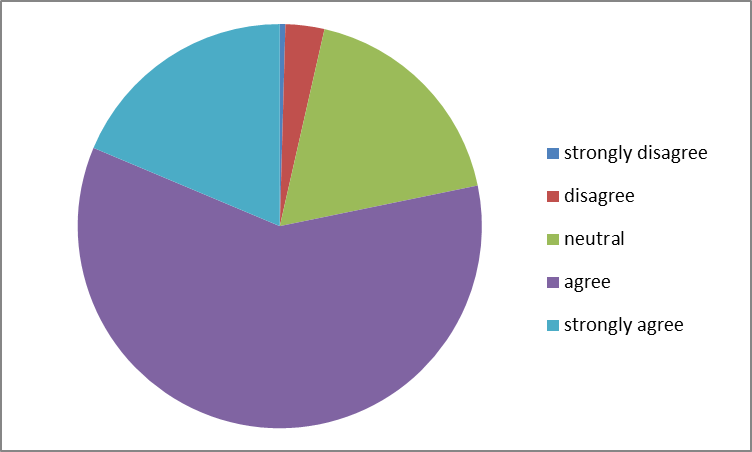
|  |  |  |
| --- | --- | --- |
| Discussed or forwarded an article or issue (emailed, tweeted etc.) | 174 | 81% |
| Saved or bookmarked an article or issue | 107 | 50% |
| Recommended the newsletter to a colleague | 108 | 50% |
| Cited or linked to iSGTW in a blog, paper, poster or talk | 45 | 21% |
| Attended an event  after reading an iSGTW announcement | 18 | 8% |
| Contributed to the newsletter | 18 | 8% |
| Sourced a photo or image from the magazine | 25 | 12% |
| Contacted an expert through the profile section | 11 | 5% |
| Submitted or searched for a job or event advertisement | 13 | 6% |
| Other, please specify | 15 | 7% |

**Conclusions/Recommendations**

These results suggest that we have a highly engaged audience, with 81 per cent of respondents saying that they have ‘discussed or forwarded an article or issue’. The results also reflect fairly positively on the impact of our publication, with people having said that they have attended an event, applied for a job or contacted researchers based on information they have found on our site. Over one fifth of respondents also said that cited or linked to iSGTW in a blog, paper, poster or talk. Again, as with other results from the survey, this adds further credence to our general impression of our audience being relatively small, but highly engaged. Among the respondents who selected the option ‘other’, one respondent reported that iSGTW had helped them to come up with a new research idea and another reported that their interaction with iSGTW had helped themto secure a funding grant.

1. **To what extent do you agree/disagree with the following statements?**
2. *strongly disagree 2. disagree 3. neutral 4. agree 5. strongly agree*

The content is at the right technical level for me



iSGTW is easy to navigate

iSGTW covers news items from around the world

There is a good balance of articles on grids, clouds, high performance computing/supercomputing, and volunteer computing.

I would consider writing, contributing, or posting news and/or announcements to iSGTW.

I use iSGTW to keep up-to-date with technical developments in all areas of e-science/cyber-infrastructure.

I use iSGTW to keep informed about events and announcements.

I have found out about tools, services, resources, projects, initiatives, and/or potential collaborators of which I was previously unaware of.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.* | **1. strongly disagree** | **2. disagree** | **3. neutral** | **4. agree** | **5. strongly agree** |
| The content is at the right technical level for me | 1 | 7 | 41 | 134 | 42 |
| 0% | 3% | 18% | 60% | 19% |
| iSGTW is easy to navigate | 2 | 7 | 35 | 130 | 46 |
| 1% | 3% | 16% | 59% | 21% |
| iSGTW covers news items from around the world | 1 | 6 | 40 | 128 | 48 |
| 0% | 3% | 18% | 57% | 22% |
| There is a good balance of articles on grids, clouds, high performance computing/supercomputing, and volunteer computing. | 1 | 5 | 61 | 126 | 29 |
| 0% | 2% | 27% | 57% | 13% |
| I would consider writing, contributing, or posting news and/or announcements to iSGTW. | 14 | 38 | 81 | 64 | 24 |
| 6% | 17% | 37% | 29% | 11% |
| I use iSGTW to keep up-to-date with technical developments in all areas of e-science/cyber-infrastructure. | 3 | 24 | 44 | 114 | 39 |
| 1% | 11% | 20% | 51% | 17% |
| I use iSGTW to keep informed about events and announcements. | 11 | 30 | 66 | 93 | 21 |
| 5% | 14% | 30% | 42% | 10% |
| I have found out about tools, services, resources, projects, initiatives, and/or potential collaborators of which I was previously unaware of. | 4 | 18 | 51 | 101 | 46 |
| 2% | 8% | 23% | 46% | 21% |

**Conclusions/Recommendation**

Roughly three quarters of respondents either agreed or strongly agreed with each of the following statements:

* The content is at the right technical level for me
* iSGTW is easy to navigate
* iSGTW covers news items from around the world
* There is a good balance of articles on grids, clouds, high performance computing/supercomputing, and volunteer computing.
* I use iSGTW to keep up-to-date with technical developments in all areas of e-science/cyber-infrastructure.
* I have found out about tools, services, resources, projects, initiatives, and/or potential collaborators of which I was previously unaware of.

This suggests that iSGTW is pitched at roughly the correct technical level, is easy to navigate, covers a good spread of topics and regions, and is a useful resource and informative resource for readers.

However, iSGTW scored less well on the following two statements:

* I would consider writing, contributing, or posting news and/or announcements to iSGTW
* I use iSGTW to keep informed about events and announcements.

Less than half of all respondents either agreed or strongly agreed with the statement that they would consider writing, contributing, or posting news and/or announcements to iSGTW. Despite this being considerably less agreement than was achieved for other statements, the fact that 40 per cent still did agree or strongly agree with this statement suggests a much higher degree of user participation than common with most online communities based around news websites.

Only 52 per cent of respondents said they agreed or strongly agreed with the statement that they use iSGTW to keep informed about events and announcements. Almost a fifth of respondents either disagreed or strongly disagreed with this statement. This suggests that our events section is not very popular with users. We will work to overcome this by linking to event announcements directly from related stories in the future.

1. **Do you have any other comments or suggestions for iSGTW?**

See responses below (Please note that all quotes are verbatim and as such many of them contain spelling/grammatical errors):

**Compliments**

* “keep up the good work!”
* “Great job! Congratulations!”
* “Keep up your good work for informing us amateurs i grid/cloud computing.”
* “You're doing a great job.”
* “Continue the same way, please!”
* “Keep on freakin' the cosmos”
* “You are an excellent team.”
* “I get lots of weekly newsletters but this is the one I read. The format with an email summary, and the length of the articles is very good (with links to the more detailed research). Having written for iSGTW myself (long time ago), I also found the author process very helpful.”
* “Keep up the excellent work ;)”
* “Keep up the good work...”
* “I enjoy the science presented - interesting research described.”
* ‘Still nice to read the articles”
* “Good informative magazie!”
* “I like to read how others using Grid/Cloud Computing in their research/projects and how its enable a new approach towards IT. All the articles are very interesting. iSGTW was a very good newsletter. Keep it up!”
* “Congratulations to your excellent work”
* “Cheers! and Congrats! keep up the excellent work you've been doing”
* ‘I enjoy very much the weekly visual. Very interesting. Visual science is very useful to understand technical and scientific matters. Visual science simplifies the complex science matters.”
* “Keep up the good work.”

**Suggestions**

* “More extensive and prominent calendar”
* “The science and technology of sustainability and its intersection with distributed computing is fundamental to capacity building whether in countries such as ours or in the developing world; your segments on e-Health are beginning to address this but there is much more that could and should be covered to educate your readers about the opportunities to advance capacity building that leads to sustainable futures.”
* “It might be interesting to add developments in the HMI / BCI Neural Headband usage and innovations, it is getting really interesting”
* “Please, we need more articles about Hadron Therapy ( and computational simulations). Monte Carlo simulations.”
* “Increase scope of coverage”
* “Please make the section where I can contribute announcements a bit more intuitive to navigate”
* “Sometimes the upcoming events, especially summer schools and workshops are posted so late that the date for applying is about to finish or already finished. It is better if you provide all the events on monthly basics with a brief on title about the closing date. “
* “Could be broader and inclusive e.g. open data, open research, and domains typically not from HPC don't get as strong a representation as they might. (Grid origins of iSGTW - might not be in scope, but some of the above questions suggest you're trying to be)”
* “May be will be interested to develop "sections" by regions: Americas, Europe, Asia, Oceanie, Africa.”
* “Visit each Tier 2 of High Energy Physics doing an article with comments. This is good to “inform all involved and clarify doubts.”
* “I have always found it very useful and user-friendly. Also the publication process is easy, quick and well managed. What I would find useful is a sort of guideline about the "level" of news you are OK in disseminating. I read there very breakthrough news as well as small project meetings and events news and sometimes I feel embarassed in deciding if a piece of news that I'd like to publish could be of the right level of importance. Maybe some guidelines could help.”
* “More physics !”
* “Find a new name”

**Criticisms**

* “Would advise the editor to shorten the articles a bit and also make the first paragraph’ interesting inorder to capture the eye of the readers. Otherwise i like the enewsletter “
* “Many articles are too long and too detailed.”
* “Better articles. Better email newsletter presentation.”
* too little response of contribution, review process not effective for the goals of the newsletter”

**Informative**

* “I usually skim, &only go back &really read a few things & follow links. So having a good summary up front is always helpful.”
* “I find iSGTW to be mildly interesting, but only occasionally read the articles. It's well done, but someone doesn't often catch my eye. “

**Conclusions/Recommendations**

Some of these comments are highly useful and informative. For example, the comments suggesting that we should aim to shorten the average length of articles published have confirmed our belief that articles are currently generally too long. We intend to make articles more suited to being read online by editing them down to remove superfluous information and by presenting tangentially related information in outboxes, rather than as part of the main body copy.

Also, the comment about presenting articles according to their geographical significance raises some interesting possibilities. Given that stories are already tagged, it would not require significant changes to the site architecture to provide indexes according to geographical location or subject area. Stories could even be included in a ‘mash-up’, where links are located on a map showing articles covering research from around the world. These comments are highly useful in shaping and inspiring the future direction of iSGTW.

**Note:** At the end of the survey, we asked people to provide their email address, to be in with a chance of winning an iSGTW prize. In total, 201 people supplied their email addresses and five winners were selected. In addition, we asked people to let us know if they would be willing to take part in a more in-depth follow-up interview. In fact, 55 people indicated that they would be happy to be contacted for such an interview.

# CONCLUSIONS AND RECOmmendations

This survey demonstrates that we are still highly reliant on our weekly newsletter for driving the majority of traffic to our site. While this shows that the newsletter is a vital tool and we should therefore continue to endeavor to increase subscriber numbers where possible, it does also suggest that there may be ‘lower hanging fruit’ available on social media sites which would allow us to increase the number of people visiting our site. To this end, we intend to dedicate more time and resources to promoting our articles through social media and develop a coherent social media strategy.

The fact that the weekly newsletter does drive such a high proportion of traffic to our site reaffirms our notion of iSGTW having a relatively compact, but highly engaged core of readers. The main challenge for iSGTW now is to widen our audience (i.e. pull in more casual, *ad-hoc* visitors from social media and news aggregator sites), so as to increase impact, while still remaining relevant to this core readership (i.e. our newsletter subscribers). We feel that this balancing act can be best achieved by taking on board the points made by the respondents to this survey in terms of article length, scope and technicality.

While the proportion of female readers on our site has increased significantly, we still have very few younger readers. Clearly, an increased social media presence alone is not sufficient to increase the number of young readers we get. To this end, we intend to investigate the possibility of having a section of our site dedicated to school/college students, complete with background/explainer articles pitched at a suitable level, a focus on careers, and publicise this through competitions or by association with summer and training schools. Another option might be to set up a YouTube channel for our weekly visuals.

Generally speaking, feedback from the survey suggests that articles are usually pitched at an appropriate level for most readers and that we cover a suitable range of topics and research from around the world. We intend to use the feedback from this report to further hone our choices in terms of the research we choose to write about.

Finally, a problem which has persisted from last year is that our events/announcement section is greatly underused. We intend to tackle this problem by linking directly to our event announcements from related articles and by promoting events/announcements more regularly through our social media.

# REFERENCES

|  |  |
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