

# World Wide Links Over 2,300 Geo-IT Ent

Starting in July 2000, GeoInformatics has been offering a list of World Wide Links on its Web site as a service to its subscribers, advertisers and readers. Since then, the number of entries has steadily increased. Starting with 800 entries in July, by the end of August, the list had grown to 1,200 entries. By the end of November, it contained 1,800 entries. Currently, in February 2001, it has reached 2,300 entries. Even though no formal announcement of the availability of the service has been made in GeoInformatics magazine, a monitoring counter has shown that the Links pages are already being accessed between 60 to 100 times per day. So obviously word has spread about its existence and it does appear to be satisfying a need. It would seem to be appropriate therefore to formally announce the availability of the Links pages and to set down something about their content and structure.

By Prof. Gordon Petrie

been sub-divided into groups on the basis of their geographical location. Usually this has been done under the sub-heading of the particular country (e.g. USA, UK, The Netherlands, etc.) or continent (e.g. Africa, Asia, Latin America, etc.) in which they are based. A few of the sub-headings that still have a very large number of entries have been further sub-divided into related groups. For example, the large numbers of educational institutions in several countries have been sub-divided into those concerned principally with (i) surveying and mapping; (ii) remote sensing and GIS; and (iii) marine science, hydrography and oceanography.

## Data Sources

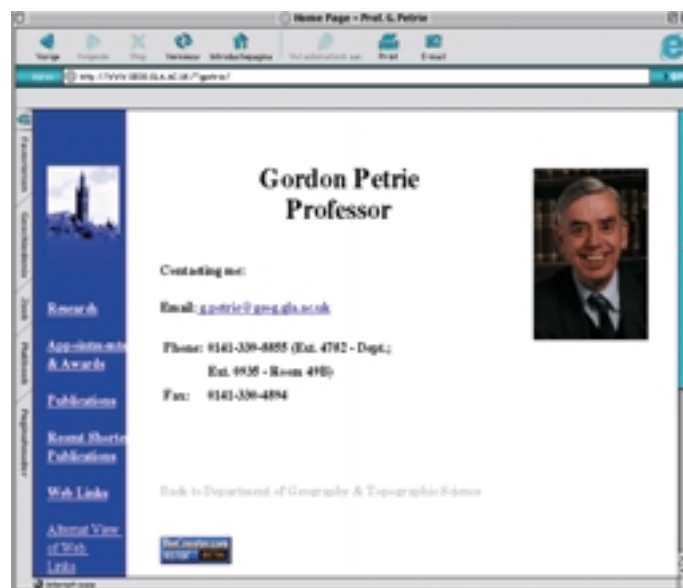
When Koos van der Lei approached me to help implement this particular project, the obvious basis for it was to use my own personal list of bookmarks. However the list of Links has been expanded greatly since then. This expansion has been carried out mainly using the results obtained from various search engines. However additional entries have come from the pages of specialist Web Links pages. Links to these specialist lists have also been included at the end of the GeoInformatics World Wide Links pages. Further entries - particularly those concerned with offshore surveying, marine science, oceanography, GPS and geodesy - have been provided by one of GeoInformatics contributing editors, Dr. Kees de Jong of TU Delft. His valuable contribution is gratefully acknowledged.

As set out by Koos van der Lei, the Director of Publishing of GeoInformatics, the idea behind the World Wide Web Links is to provide a directory - a sort of "Yellow Pages" - which covers the main fields - surveying, mapping, imaging, GIS, photogrammetry, cartography - that the magazine itself aims to cover. It is hoped that the entries in the Links will be a source of information to the magazine's readership that will help them find information on products and services that may be of interest to them. In this way, the Links supplement the information given in the magazine itself. The entries in the

Links list include hardware and software suppliers; mapping and remote sensing organisations and services; satellite constructors, operators and ground stations; professional and scientific organisations; and educational institutions.

## Classification & Structure

The 2,300 individual entries have been classified and placed under 90 different headings. Where there are a large number of entries under a single heading, they have



World Wide Links is a service offered jointly by GeoInformatics ([www.geoinformatics.com](http://www.geoinformatics.com)) and Prof. Gordon Petrie's personal web site ([www.geog.gla.ac.uk/~gpetrie](http://www.geog.gla.ac.uk/~gpetrie)).

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# ries on GeoInformatics' Web Site

## Content

With regard to the content, the listed sites have been limited to those that use the English language - which is that used in GeoInformatics magazine. Sorry but I can't read Japanese, Korean or Chinese script and Greek and Russian pages using the Cyrillic alphabet! Nor can I deal with the myriad of European languages. So, if the pages dis-

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played on a particular Web site are not in English, then they have not been included in the list of Links. In this particular matter, I am well aware that there are comparable lists of Web Links in other languages. Thus, for example, there is the excellent list of Spanish language Web sites concerned with mapping and remote sensing given by the Mercator Project (<http://www.mercator.org/>). Another point regarding content is that, as far as possible, only a single entry has been included for each organisation, company or institution. This entry has been placed under the particular heading that seems most appropriate to the main activities that it is engaged in. We are open to suggestions for change, especially if an entry has obviously been placed in the wrong category - but multiple entries under different headings are not going to be implemented, except where it is absolutely essential to do so. Re-sellers and retailers of mapping software and GPS sets have also been excluded from the List - there are at least 10 shops selling GPS sets in Glasgow alone!

## Largest Groups of Entries

The biggest single group of entries in the Links are those for University & College Departments & Institutes, for which there are currently 375 entries. Of these, 138 are for American universities and colleges, including 17 for marine science, hydrographic surveying and cartography; 89 for remote sensing and GIS; and 32 for surveying and mapping.

The next largest group is that covering surveying and mapping service providers, for which there are 211 entries. Of these, 95 are based in the U.S.A. Besides these two major groups, the next biggest groups are those covering (i) Digital Mapping & GIS System and Software Suppliers with 104 entries; (ii) National Government & International Surveying & Mapping Organisations with 77 entries; (iii) Remote Sensing Image Processing Companies & Image Suppliers with 68 entries; (iv) Professional & Scientific Organisations with 64 entries; and (v) National Government & International Remote Sensing Organisations with 61 entries. Inevitably the Links also show a bias towards certain subjects that are of a personal research interest. Thus it contains 70 entries for Close-Range Photogrammetry; 53 for Radar Systems, Acquisition & Processing; and 52 for Infra-Red (IR) Imaging.

## Land Surveyors

A limitation of the present list concerns professional land surveyors. In fact, this field is not covered too strongly by GeoInformatics magazine. However the main difficulty with

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regard to providing links in this particular area is that there are a myriad of small companies and individual surveyors practising land surveying - especially in the U.S.A. A very short exploratory investigation revealed several hundred surveyors with Web sites. It appears too that their Web addresses change quite often as they move from one Internet Service Provider (ISP) to another. So it has been deemed impractical for the

moment to include and to keep track of all the land surveyors who would have to be included in the List.

## Keeping the Entries Up-to-Date

This also brings up the matter of trying to keep abreast of all the Web sites in the areas covered by GeoInformatics and to ensure that the Links are reasonably up-to-date. As all of those who have compiled lists of this kind have found out, one quickly realises that one has created a monster that needs to be fed continuously. So far, experience has shown that between 7 to 8% of the entries in the List need to be changed over a period of a month. These changes have, in the first place, to be detected and the new link (if it exists!) then has to be found and the necessary alterations made. If one checks 50 to 70 links in an evening - an operation that takes one and a half hours even with a fast connection to the Internet, then it takes one month to check through the whole list and bring it up-to-date. So, dear readers, if a link doesn't go through, please inform me by e-mail at my address:- [g.petrie@geog.gla.ac.uk](mailto:g.petrie@geog.gla.ac.uk) - and include the URL of the new link if it can be found. We would really be most grateful if readers could help to keep the list current in this way.

## Improvements

As users of the Links will find out, at the moment, the pages do not have an overall index at the beginning of the list that summarizes all the headings that are contained within the list. This index of headings should be placed at the start of the Links and would make it much easier for the enquirer to find the specific group of entries that are of interest. We do have such a version of the Links with this initial index under test at the moment. However it has proven to be much more difficult to keep this alternative version up-to-date than the simpler version that is being offered on the GeoInformatics Web site at present. Hopefully we can come up with a solution soon.

We do hope that you will find the World Wide Web Links to be of some value to you.

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