Virtual Reality Web

Desktop Virtual Reality offers new and exciting opportunities for World Wide Web users. Currently, WWW users complain of having to repeatedly alter the terms in a web-search query to find useful information, or having to jump to a different search engine, or becoming disoriented and unable to find a previously visited page. The *most* common mistake users make is submitting a URL (xyz.com) to a search engine, even though the required address is already known.
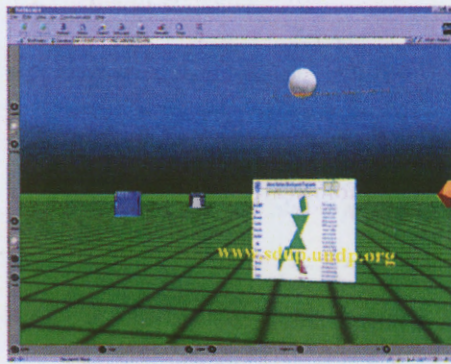
The VR-Net project tackles these prob-

Figure 1: Identified clusters are depicted in Virtual Reality.

lems by placing all search results (web-pages and any hyperlinks between them) within a Desktop Virtual-reality Environment (DVE). (Standard computers now posses the power to support DVEs, often by using plug-in software to an ordinary web-browser.) Hyper-linked pages are located in the same region of the DVE, and the VR-Net meta-search process identifies inter-linked 'clusters' of pages – rather than individual pages. Users can explore the virtual world by looking at the thumbnail previews of web-pages, and if a relevant page is found then they can examine any other pages that contain a hyperlink to or from that page.

Each cluster of web-pages identifies a different 'theme' within the scope of the original query. For example, searching with the term *'bass'* finds clusters of web-pages related to *fishing, guitars, beer etc.* VR-Net places each of these page clusters in a separate area of the virtual environment, allowing the users to refine their query by moving towards one cluster or another within the DVE.

This work has broader implications for visualising other networks, and this is par-
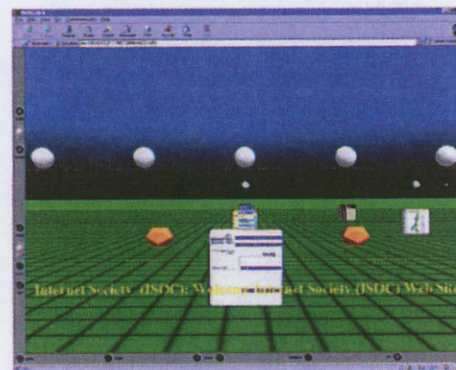

Figure 2: A cluster of results, all linked to isoc.org.

ticularly important given the recent merging of the Internet with both fixed and mobile telecommunications networks.

*David Cleary is a postgraduate student in the Department of Computer Science, NUIM, and is also Director of Ericsson Research Laboratory, Athlone, Ireland.

Contact: Diarmuid O'Donoghue; E-mail: diarmuid.odonoghue@may.ie; follow the VR-Net link from the following web-page: http://www.cs.may.ie/~dod.