



NATURE: SIGNALLING GATEWAY IS THE DOOR TO THE FUTURE

** The primary data environment created by AfCS (Alliance for Cellular Signalling) and Nature Publishing is a demonstrator of the future model for scholarly communications, in a world where current journal publishing margins are unsustainable.*

Not that Nature Publishing (Macmillan) would seem to have too much immediate cause for worry in journal publishing terms. Its impact factor performance makes it a clear leader and its growth rates are the envy of even its largest competitors. Yet since December 2002 it has also been demonstrating, in a way that parallels yet is highly different from Wiley's Organic Syntheses product, that creating data products for bench scientists can secure high value niche markets with quality products that wrap themselves around the workflow and research process requirements of users. In this case the scientists are biologists, studying the complex signalling pathways between cells in pursuit of results in cancer research, immunology, neuroscience or drug discovery. The AfCS is a 10 year, \$100 million project linking eight major US research institutions, funded by the US National Institute of General Medical Sciences (NIGMS). The alliance creates a wide range of experimental data, which must be rapidly updated and made available, and researchers outside of the alliance need to share in and contribute findings. Signalling Gateway is their solution, with value and management added by Nature as their publisher.

The Signalling Gateway site has three main components. The Data Centre is the AfCS's own repository of data from its laboratories, combined with toolsets and analytical programs for examining this material – online or offline. Raw data is accompanied by detailed reports on experimental procedures and protocols, and reference datasets needed by bench scientists. This area is developed and controlled by AfCS itself. Alongside it, the Molecule Pages are edited by Nature staff. They include structured data on 3500 proteins, with key information derived from other database sources supplemented by summaries from 1500 experts and author-entered data. The results are edited and collated by Nature, who also organise the peer review of this content and assign DOIs to it so that it can be cited effectively in the research journals. The third section, also produced by Nature, is Signalling Update, and comprises news and comment written and commissioned by Nature editors.

Since this construction was created at the coalface of science by the users themselves or by the publisher at their behest, it is no surprise that it has grown rapidly into an indispensable data core for its sector. It now has 40,000 user registrations and sends email alerts to 60,000 unique, active email addresses per week. It currently serves around 250,000 page requests a month, but given the online/offline options this may not be a true guide to its influence. As an editorial task it is a very successful story of network publishing. Hosted on the San Diego supercomputer complex, edited in Durham NC, Dallas and London, and initiated by Nature editors living on site in San Diego for six months, it is also a case study in resource management and remote team working.

But the ultimate surprise, and one which should set the industry thinking, is the business model. While start-up was supported by the US taxpayer through NIGMS, the service is run through sponsorship by Genentech and Eli Lilly. There are site advertising opportunities and email alert advertising slots. Some pay per view activity is being developed alongside links to articles and third party content. There appears to be no ethical argument about the sponsorship – national scientists understand why this is needed, and respect the integrity of Nature as a brand and as a guarantor that sponsors cannot influence content. For some analysts biomedicine would be the last place to look for an advertising model, and for some publishers the attraction of STM was that it was not advertising dependent. Yet nature have shown that lateral thinking and a proper disrespect for the rules of the game can create magnet services and high value publishing while peers with less prominent brands are worrying about the effects of Open Access and the influence of SPARC.

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