

SCIFAIR.ORG, A WEB BASED RESOURCE FOR ELEMENTARY TO GRADUATE SCHOOL

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INTRODUCTION

SCIFAIR.ORG (Gudenas, 2001) is titled on the web site and to search engines by meta tags as the "Ultimate Science Fair Resource". This project is used as a productivity center for elementary students through high school. Email indicates that teachers as well as students and their parents actively use the content material. SCIFAIR includes an Idea Board that provides students with a platform to exchange project ideas. Users find a prolific number of project concepts here. However, editing is required from the registry to prevent duplication and sophomoric comments, typically from middle school students, before actual posting to SCIFAIR occurs. A Research section exists that allows a student access to a taxonomic structure of scientific disciplines and productive URL's to gather information. While these are the most popular sections Table 1. lists the active content of the site.

Articles:

Project Steps
Project Hints
Scientific Method
Writing Reports
Display Boards

Resources:

The Idea Bank
The Idea Board
Science Research
Books

Contact Dr. John and colleagues

Table 1.
Content of SCIFAIR.ORG

In order for the project to be productive it must have exposure to web users. The domain name was purchased in July 2000 specifically because it had developed a reputation over three years and had been already available as a resource and accessible to major search engines. The site underwent enhancements using standard (Tapper, 2000) marketing techniques and design, especially associated with general link clean up and human computer interaction. These techniques proved successful as the school year started, SCIFAIR gained users rapidly and the ranking was improving dramatically. By November of 2000 SCIFAIR was usually listed in the top ten (first page search presentation) of Google, Yahoo, AOL and other engines. A search under "science fair" or "science fair resource" would produce these results.

A decision was made to maintain complete control of intellectual property and use a separate web hosting service from the university computing system (Samuelson, 2001).

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This process allowed SCIFAIR to be run as a business under sole proprietor control designed to make a profit and insure perpetuity. Running SCIFAIR as a viable business also produced another benefit. The techniques associated with running a successful e-commerce were instantly ported into the Computer Science classroom as web page design and human computer interaction and into the Management Information Systems classroom as actual and revenue producing e-commerce. SCIFAIR is an entity with dual functions. It is a resource used by elementary and high school students including their teachers and parents and it serves as an active web based laboratory that brings immediate technology and techniques into the university classroom. Maintaining intellectual property and distance from university academic computing is essential for a real business and control without interference. It also allows discretion in releasing content to teachers that request distribution rights for their class (Burke, 2001).

RESULTS

SCIFAIR proved to be amazingly successful. Applying solid web design and insuring ease of navigation plus appropriate content, tripled the use of the site. In January 2001, SCIFAIR took over one million hits. Table 2. Indicates the monthly activity that has occurred to the date of this report.

HITS	BYTES	VISITS	PVIEWS		
91,041	371,546,840	5,772	12,811	Nov 1999	■
129,512	527,522,541	7,382	17,870	Dec 1999	■
364,144	1,712,479,868	27,495	88,989	Jan 2000	■■■■
334,955	1,842,133,607	34,314	104,990	Feb 2000	■■■■■
251,829	1,336,344,770	28,566	75,340	Mar 2000	■■■■■
182,644	963,561,366	21,046	52,776	Apr 2000	■■■■
140,825	721,462,679	15,666	38,466	May 2000	■■■■
45,152	227,398,000	5,229	11,466	Jun 2000	■
42,630	215,246,264	4,864	11,228	Jul 2000	■
137,161	722,994,355	14,541	37,838	Aug 2000	■■■
476,770	2,568,900,268	43,537	139,236	Sep 2000	■■■■■
670,387	4,054,547,236	57,019	206,076	Oct 2000	■■■■■■
698,309	4,921,304,350	55,634	222,226	Nov 2000	■■■■■■
373,956	2,625,760,394	31,683	115,817	Dec 2000	■■■■■
1,024,616	7,041,906,062	69,092	320,613	Jan 2001	■■■■■■■
750,691	5,089,407,863	53,444	223,417	Feb 2001	■■■■■■
560,007	3,798,090,642	43,587	161,251	Mar 2001	■■■■■

Table 2.
User Activity on SCIFAIR

The usage of the site follows the typical academic calendar with the exception of December. One explanation of low activity in this month has associated the holiday season and school vacations. Another possibility may be related to doing

research at school computing facilities, however, the following time usage indicated in Table 3. Does not fully justify this hypothesis.

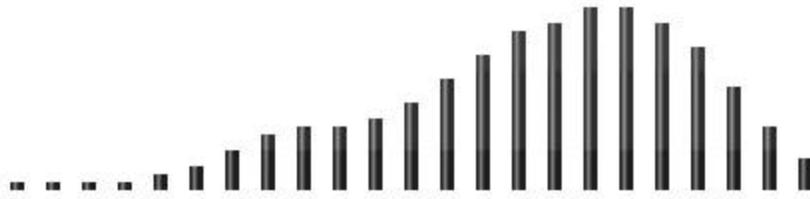


Table 3.
Activity Hours 1 - 23 Using Pacific Standard Time

E-COMMERCE ACTIVITY

A limited number of sponsors were chosen for the entry portal of SCIFAIR that would be non competing and offer useful service to SCIFAIR users. For a flat yearly fee these sponsors were allowed to place a banner ad on the entry portal. All sponsors enjoyed success and banner rotation was not necessary due to the complimentary nature of the sponsors business (Williams, 2000).

An affiliate program with Amazon also established a revenue source. Students as well as teachers need sources for books on science fair projects. These revenue producing agents using basic pull marketing techniques presented a service for users that were short of time or did not know where to find supplies or ideas for project construction. SCIFAIR data also provided experimental web techniques that were instantly brought into an MBA and undergraduate MIS course.

HCI EXAMPLE

A simple line existed in the menu items that allowed students to "Contact Us" by a click through if they had questions. This technique resulted in approximately 3 email contacts/day. A side column graphic was added that presented a characterized scientist and the column frame area titled "Ask Dr. John". A click on the scientist brought the user to a picture of this author sitting at the home computing station and personalized the activity. Email activity increased to 30- 40 help-requests/day within one week and continue at this level. Thousands of email responses have been sent with approximately 20% to teachers and parents.

REFERENCES

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