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1. INTRODUCTION

Unidata is building a dynamic, web-based information and collaboration portal. The immediate goal is to provide users with on-line, interactive, collaborative tools designed to extend, broaden, and bring together its user community. A key to making this project successful will be community-based needs assessment.

Our aim is to facilitate cross-disciplinary collaboration through deployment of topic-centered forums, community directories, and collaboration boards. Access to Unidata support, software downloads, on-line writing tools, news feeds, and a central community directory are a few of the tools that this highly customizable portal will offer. With cooperation from similar initiatives within UCAR, we will work toward providing a single point of authentication where users can gain access to a wide range of information and tools, including digital libraries, all within one framework. We have termed this effort PlazaElectra.

2. WHAT IS UNIDATA

Unidata is multi-faceted. The Program Center itself is only a small part of what Unidata comprises. In fact, Unidata is over 150 university departments sharing data via the Internet Data Distribution network; it is the sum of its thousands of software users; it is the many user-sustained support groups that assist a broad network of users. Its governing bodies provide voice for the community at large. Perhaps Unidata is frequently referred to as a "virtual community" (Fulker et al., 1997) because it is tied, not by physical locale, but by common needs, goals, and a desire to participate in a valuable research and education tool for an array of disciplines.

Since its formative years, the Program has aimed to be a reflection of its community's needs and has based its development on community input and strong community-based governance. As a loud

cry for multi-disciplinary science resounds throughout the research and education communities, Unidata faces the challenge of engaging educators and researchers beyond its traditional community (NSF: Beyond 2000). Our goal is to do so in an evolutionary fashion rather than forcing our way into new and diverse disciplines. In the spirit of extending our virtual community, we will, through PlazaElectra, provide the education and research community with a means by which natural expansion and cross-disciplinary communication can take place.

3. WHAT IS PLAZAELECTRA

PLAZAELECTRA will resemble an electronic town plaza where researchers and educators from all disciplines can gain access to Unidata products and support; find experts and collaborators in any discipline; participate in topic-centered forums; read news and find out about upcoming opportunities and events; all within a highly-customizable portal that will deliver information that is relevant to each user's profile.

Individuals who wish partake of the site's functionality will be required to register for a username and password by providing information about personal expertise and interests, along with more standard (address, institution for example) information. Registration will allow us to personalize each user's view of the Plaza, and will aid users in future interactions with collaborators. It will also help us to make smart decisions regarding our users' needs and desires. For example, if we find that a large group of registrants is interested in a specific scientific area that has not been addressed, we will work to provide information and tools for that area. This is one way in which we can ensure that each user has a voice.

Unidata will not sell or distribute collected information outside of the PlazaElectra framework. To protect the confidentiality of each user's

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information, we will adhere to a privacy policy that allows users to decide whether or not they want to share their information within this framework to form collaborations. It is very important to us that our users feel comfortable sharing information on our site. We will make every effort to ensure its security.

In the long term, registered users will have access to on-line training modules. This may provide significant economies both to the program center, and to groups who traditionally spend thousands of dollars to send employees to Unidata training sessions.

All of this will be the icing atop an updated and revamped web site, which will continue to provide critical information about Unidata to its users.

4. WHAT WE HAVE DONE SO FAR

We began this project in March 2001. Our first tangible development was a community survey, which was deployed in May 2001. To take the survey, users must first register with the site, providing key information about themselves and their organization. User information, whether collected from the survey, through software downloads, or legacy data, is the backbone of the new site.

Coupled with a new, expanded participation policy, <http://my.unidata.ucar.edu/registration/participation.phtml> we also deployed on-line software licensing and download capabilities that save users time and effort in obtaining Unidata tools. This capability has been widely used serving over 900 downloads at the time of this writing.

We currently are working on building a community database tool, which will allow registered site users to be contacted or make contact with users with whom they may share common interest. Again, we will only make information available on a limited basis, and with the expressed permission of each and every user. This web-based tool will also serve administrative purposes within the program center and will allow staff to run complex queries and reports about its user base. We expect this package to be in testing by early December, and ready for demonstration at the 82nd Annual AMS Meeting in January 2002.

5. WHAT'S NEXT: SUMMARY

We recently formed a sub-committee of the Users Committee to assist the center to set priorities and discover new and interesting uses for web-based tools. This committee will meet for the first time in October 2001 and will, just like all governing committees, provide community leadership to the UPC as it proceeds with this project.

We are working hard to transition our current site into the PlazaElectra framework. This project requires careful planning and implementation to ensure that we do not lose critical information contained on our current site.

We are actively researching web-based tools, which offer excellent collaborative opportunities for deployment on our site. This includes tools for facilitating on-line support, group writing tools, bulletin boards, and other communications tools. As mentioned above, we are also considering means by which we can provide on-line training modules.

Much can be accomplished using applications and code (open source whenever possible) that already exist. We also believe that through collaborative efforts within our community and throughout UCAR, we can make faster progress; but these efforts take substantial planning, prioritization, and testing. We will not rush to complete this tool, but will carefully build it to speak to the needs of our present and future communities.

6. REFERENCES

Fulker, David W., S. Bates, and C. Jacobs, 1997: [Unidata: A Virtual Community Sharing Resources via Technological Infrastructure.](#) *Bulletin of the American Meteorological Society*, **78**, March, 457-468.

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