



DigiCULT .Info

Issue 3 A Newsletter on Digital Culture

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INTRODUCTION

Our third issue of the DigiCULT.info Newsletter continues to reflect growing community participation in the DigiCULT Forum activities. This issue includes information about forthcoming events, reports on emerging standards and tools, examines some approaches to the improved discovery and preservation of digital objects, considers the needs of the heritage sector for top level Internet domain names, introduces the concept of web services and a distributed framework for museum exhibitions, and concludes with a consideration of charging models for digital resources. As in previous issues we have included a selection of events and calls for papers. At the end of 2002 DigiCULT launched

an events service on its website to enable those hosting conferences, exhibitions, or seminars to make information about them available to the DigiCULT community. We will supplement this facility in the near future with DigiCULT Alert, which will notify registered users about new events as they are posted. The events facility was supplemented in February (2003) with DigiCULT Links. This service provides a place for heritage institutions, projects, and standards organisations to list their web services and, thereby, contribute to establishing a comprehensive resource for the heritage community.

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DigiCULT - Engaging the Sector

- [LINK](#) Thematic Issue 2 is now available
- [LINK](#) Third Forum held in Darmstadt, Germany: XML: Towards an Interoperable Semantic Web for Heritage Resources
- [LINK](#) Hiking up Mount Everest. Interview with Marco Meli, EDW International
- [LINK](#) DigiCULT Online Comment System
- [LINK](#) DigiCULT Events Database
- [LINK](#) DigiCULT goes Multilingual

Reports on Culture & Technology Events

- [LINK](#) Concertation meeting of the DG INFSO, Directorate E, Interfaces, Knowledge and Content Technologies, Applications, Information Market, January 2003
- [LINK](#) Frontiers of Scientific and Technical Data, 18th International CODATA Conference
- [LINK](#) Transforming Disciplines: Computer Sciences and the Humanities Conference
- [LINK](#) Report on the Fifth International Conference EVA 2002, Moscow

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News in the Spotlight

- [LINK](#) Release of CIMI XML Schema for Spectrum and Open Implementers call for Alpha Test Period
- [LINK](#) Dspace, digital repository open source system
- [LINK](#) Waste Electrical and Electronic Equipment, a new European Council directive.
- [LINK](#) Trust and Confidence, concerns preventing widespread take-up of e-business opportunities
- [LINK](#) Public Records Office (UK): Database of File Formats and Application Software.
- [LINK](#) Upcoming Events
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Challenges / Strategic Issues / New Initiatives

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TLD'S EMERGING DOMAIN NAME OPPORTUNITIES

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The everyday situation for Internet users has changed significantly during the course of its existence. Anyone who has been using the Internet for more than a few years will remember a time when there was no reason to wonder if an incoming e-mail message dealt with the subject with which it was headed, whether its indicated origin was legitimate, or if it could be opened without risk of unleashing a destructive virus. Similarly, although a URL might easily lead to an outdated document or an error message, there was no need to fear that it might unexpectedly go to a site that you wouldn't want your mother to see you visiting.

If there was any reason to keep the contents of an e-mail communication from being read by unauthorised individuals or to provide it with a verifiable signature, encryption applications were available. Information in an e-mail header was, however, routinely trusted without need for further concern. Indeed, one of the reasons for the Internet having assumed the dominant position among comparable technologies was that it did nothing other than move packets of data from one node on the network to another, and verify the correct delivery of data between the client and server. No accountancy data beyond what was needed for these immediate purposes were included in the data stream.


For a long time, the users and administrators of the Internet shared a common interest in ensuring its reliable operation. Although the members of this community needed to trust each other, this trust was implicit in the basic phenomenon. Notions of such things as spam did not exist. There was thus no basis for even dreaming that it would someday become a pandemic malady, and no mechanisms were devised for combating it or any of the other threats to the secure operation of the Internet that sadly now abound.

There is no way that more explicit support for security and trust can be retrofitted to the Internet's basic transport protocols. The security of a variety of adjunct protocols such as the DNS (Domain Name System) and HTTP (Hypertext Transfer Protocol) is currently being improved by extensions to previous versions of those protocols. This is largely intended to protect client-server transactions. The pervasive aspect of trust that characterised the early Internet community is probably lost forever and may have become so not solely because of security issues. No community can grow continually without the interests of its members at some point diverging. If its becomes large enough, it may no longer be appropriate even to attempt to see it as a single community. The Internet has now become large beyond any ability of its creators to have imagined, and the initial single user community has been replaced by an all

but countless number of separate communities.

Many of these are large and have clear sectoral identities independent of the Internet. In many cases, the activity that they conduct on it could benefit from an equally clear shared identity on the Internet. During the course of the development sketched above, however, the concept of network identity focused ever less on groups. Emphasis shifted toward individual organisations 'branding' themselves with domain names. To the extent that such an organisation needed to provide a basis of trust in its dealings with Net users, the brand served that purpose.

Further impetus to this trend was provided by changing perceptions of the commercial value of the Internet. This led to the dot-com phenomenon and its ultimate collapse, which caused inestimable collateral damage. When it became apparent that domain names were being used in manners that had potential for leading in an undesirable if not outright harmful direction, it was proposed that this might be offset by the creation of a larger number of top-level domains (TLDs). Further similar benefit might be had if the semantic value of domain names were brought into clearer focus. A 'proof of concept' of the latter approach was foreseen in the creation of a number of restricted TLDs, each established for a clearly named and well-defined 'target community'. Without any



need for extending or redesigning the DNS, it would thereby become possible for communities to establish collective identities on the Internet.

One Big Question required a convincing answer before this was actually implemented. What would a community be able to do with its own TLD that it could not do on a lower level in one of the pre-existing TLDs? The obvious alternative device was something along the lines of SECTOR.ORG. There was, however, a simple and compelling case to be made against this. Assuming that, as a second-level domain it received the full consensual support of the community for which it was created, it would still be vulnerable to the individual whim of its operator. This could be offset if the domain were operated by some broader corporate entity established by the envisaged TLD's target community, but it was still necessary to prevent the operator from being able to redefine the purpose of the domain.

This issue was ultimately resolved by entrusting the operation of each community-based TLD to a 'sponsoring organisation' (SO) on the basis of a charter established jointly by the prospective SO and the agency responsible for the management of the top-level of the DNS, the Internet Corporation for Assigned Names and Numbers (ICANN). The SO could not then unilaterally alter the terms of the charter and ICANN was empowered to redelegate authority over the TLD to a new sponsor if the initial SO failed to maintain the policies established in the charter.

This was finally put into practice with the creation of three sponsored generic TLDs (sTLDs) in October 2000. Given their innovative nature, it was not possible to anticipate where their

establishment action might ultimately lead. Much depended on the value that individual members of the target communities ascribed to being identifiable as a member of that community by means of a name in the new TLDs. There were, after all, other means by which institutions could indicate the sectors to which they belonged.

The pivotal issue became one of trust. If the Website WWW.BIG-BESTMUSEUM.COM claims that it is operated by a museum, the user is left to verify its origin either on the basis of the site, itself, or through deliberate research elsewhere. If the same site were to appear as BIG.BEST.MUSEUM, the validation effort would require nothing more than reference to description of the domain's purpose in the .museum charter. This is, in fact, based on the definition of 'museum' contained in the Statutes of the International Council of Museums (ICOM). Although erudite users might argue the details of that definition, from the perspective of the average user, the assurance that a .museum resource conforms to ICOM's notion of what constitutes a bona fide museum is probably sufficient.

It may be suggested that a non-specialist user has little need for concern with verifying the organisational status of a Website that is otherwise found useful, elucidating, attractive, or entertaining. However that might be, it can be countered that it is in the museum community's own interests to provide a clearly identified and easily accessible area on the ever so vast Internet that contains material guaranteed to reflect the museum profession's expertise and values. It is, in any case, the sector's mandate to make such material publicly available. Since the identifiers assigned to all

resources on the Internet contain a domain name designation, the value of the bounded community of trust provided by a dedicated TLD should be apparent.

The scope of this trust may be extended by controlling further aspects of the .museum namespace. As a further proof of concept, the second level in .museum is reserved for generic and geopolitical designations. (This is more easily demonstrated than described and the reader is encouraged to visit <http://index.museum/>). This provides a basis for cohesively named coordinated action within subsegments of the museum community. Examples might be the deployment of cataloguing or metadata schemes, with specific disciplinary focus.

ICANN is now preparing to open a second call for proposals for further sTLDs. The selection of .museum from among the responses to the first call was, in part, motivated by the expectation that it was going to be the first of what would subsequently become a larger number of sTLDs within the broader heritage management sector. Attention is currently being focused on the other two communities in the ALM sector – archives and libraries. Additional members of the envisaged sTLD cluster may also be found in the fixed cultural property management community – monuments and sites. The scope of further expansion is potentially as wide as that of culture although it is currently totally unclear how many new TLDs will ultimately be established. Present action is focused on the 'approval of a limited number of new sponsored gTLDs'. Who within the DigiCULT sphere of concern will be next?