

Kim H Veltman

## Domain Names and Classification Systems

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At the moment Domain Names are confusing at best. A typical name such as [www.louvre.edu.fr](http://www.louvre.edu.fr) has four ingredients: 1) the type of server (i.e. www as opposed to an alternative such as ftp); 2) an institution (known in American as a Second Level Domain name or SLDs which we propose to call 2LDs); 3) a type of organization (known in American as a Top Level Domain name or TLD) and 4) a country (in this case France as fr). In the present system these domain names at various levels were conceived before there were country codes and are positioned from right to left in the manner of Arabic.

This approach has two shortcomings:

- 1) if one wishes to add further terms (2LDs, 3LDS) then one has to alter the whole address. This is very inefficient because there is no basic part, which remains constant to which one can add extras.
- 2) geographical elements (where?) and content elements (what? or who?) are mixed up such that there is no way to search simply for Who? What? or Where? We need a system where these questions are treated systematically (figure 1)

Such a logical approach (figures 2) would reverse the order of the domain names and introduce a more systematic order. A first section answers the question How information is transported? Hence, one begins as usual with 1) the system (www, ftp, telnet etc.). A second section answers the question Where? and has a geographical component. This includes the 2) the continent (e.g. .eu); 3) the country (.fr); 4) the institution (Louvre). This section can be linked with Geographical Information Systems (GIS) and Global Positioning Systems (GPS) which can provide tourists with maps showing the location of the Louvre on their mobile telephones and devices. A third section answers the question Why the site is there? It does so through 5) a Top Level Domain (TLD), which identifies the kind of organization. etc. In the new system these first three sections of the address are fixed.

A fourth section, which answers the questions What, Who and When? will constantly have add-ons. This section will use authorized subject headings and will follow from left to right such that one will have 6) Second Level Domains (2LDS) and 7) Third Level Domains (3LDS) successively.

How? System	Where? Geographical Info CcTLD	Why? Category TLD	What? Who? When? Subject Headings, Classifications 2LD, 3LD etc.
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Figure 1. Basic characteristics of a new Domain Name scheme.

Topic	Domain	Address
1. System		www, ftp, etc.
2. Continent		eu
3. Country		fr
4. Institution		Louvre
5. Kind of Organization	TLD or 1LD	edu
6. Description linked with Classification Systems	2LD	paintings
7. Further Description linked with Classifications	3LD	Renaissance

Figure 2. A concrete example of basic ingredients in a new domain name scheme.

In this way we can freely add elements to the description, which serve further to limit and define the topic at hand. To continue with the example cited in figure 3 it would be easy to add some further descriptors such that one had: 5) Paintings/Renaissance/Italian/Florentine/Leonardo/MonaLisa.

How will this approach affect companies concerned with their trademarks and brand names? Multinationals, which do not wish to be identified with a single address, will remain the way they are today: e.g. [www.ibm.com](http://www.ibm.com) will continue to exist as before. Because private individuals linked with a specific address will begin with Internet addresses such as [www.eu.fr.etc](http://www.eu.fr.etc), there will be less confusion between multinational companies and individuals who might wish to comment on them. On the other hand, organizations such as the European Brands Association are discovering the need to use the recognized headings of Yellow Pages, and professional classification systems to identify their materials. This will become all the more essential as they move towards making their product catalogues available on line. Such descriptions would simply continue from left to right and thus represent simple add-ons rather than requiring that the entire address be changed with each addition. The new system thus allows cumulative change rather than the constant disruption implicit in domain names as they exist today.

While large companies clearly want a first entry point via a brand name ([www.ibm.com](http://www.ibm.com)), when it comes to meeting customers, companies need as much as anyone to be readily findable. Hence it may prove useful to have individual branches have websites complying with a general model such as [www.eu.it.ibmnaples.com](http://www.eu.it.ibmnaples.com) in order that these can be found both geographically and conceptually. Further details will follow in the left to right manner using names and subject headings from authority files.

Using authority files such as subject headings, arranged as thesauri and classification systems can become a source of new insight. Such classification systems offer insights into the various methods of cubby-holing information in different cultures. They are records of the practical categories of thought in a given culture. If these can be systematically accessed then we have new methods of gaining insight into ways of organizing the world, new insights into world-views. Different classifications can also be used to link local, regional, national, international and global knowledge. The proposed reform in domain names thus offers a method for linking the new knowledge of the Internet with the existing knowledge of memory institutions. This leads to a global system where the uniqueness of local and regional culture remains intact.