

**The Italian and the English model
of information retrieval used in the governmental websites**

Simone Fuchs

<Volpe79@web.de>

University for Foreigners of Perugia

<<http://www.unistrapg.it>>

Luca Rosati

<luca@lucarosati.it>

University for Foreigners of Perugia

<<http://trovabile.org>>

Abstract

We have analyzed the Italian and English governmental website to examine their structures and the means they propose to retrieve information. As a matter of fact their approach is totally different: the Italian website employs a hierarchical system which offers only one way to access each public service; the English one on the contrary uses an associative model, which distinguishes itself for the various viewpoints to describe the individual service. This kind of organization assimilates significantly the methods of the faceted classification ¹ which we applied suggesting an alternative way to structure a governmental website.

Introduction

The greatest consumers of e-government in Europe are the Italians: more than 53 percent of the active internet users were registered between September and November 2003. A number that turns out even more surprising when compared to other European countries, for example Great Britain with 45 percent and Germany with 35 percent (Gobbi 2004). This large interest can be explained by the complexity and impediments of the bureaucratic system. Unfortunately the governmental website <www.italia.gov.it> causes difficulties as well. Stengel (2004) confirms that most Italians use the site to obtain information, but a great deal have problems in finding them (Postai 2004 and Rosati 2004a).

¹ For more information about faceted classification refer to Denton (2003) and Merholz (2001).

The hierarchical model of Italia.gov.it

The Italian website employs a hierarchical system and, in fact, it causes a lot of problems. The main reason of these complications is its stiffness and inflexibility. **Public services are located in one, and only one, category and there is a single path to get there.** This practice permits a unique mental model ² of every service and users that value the same service differently are not assisted and often do not achieve their aspirations.

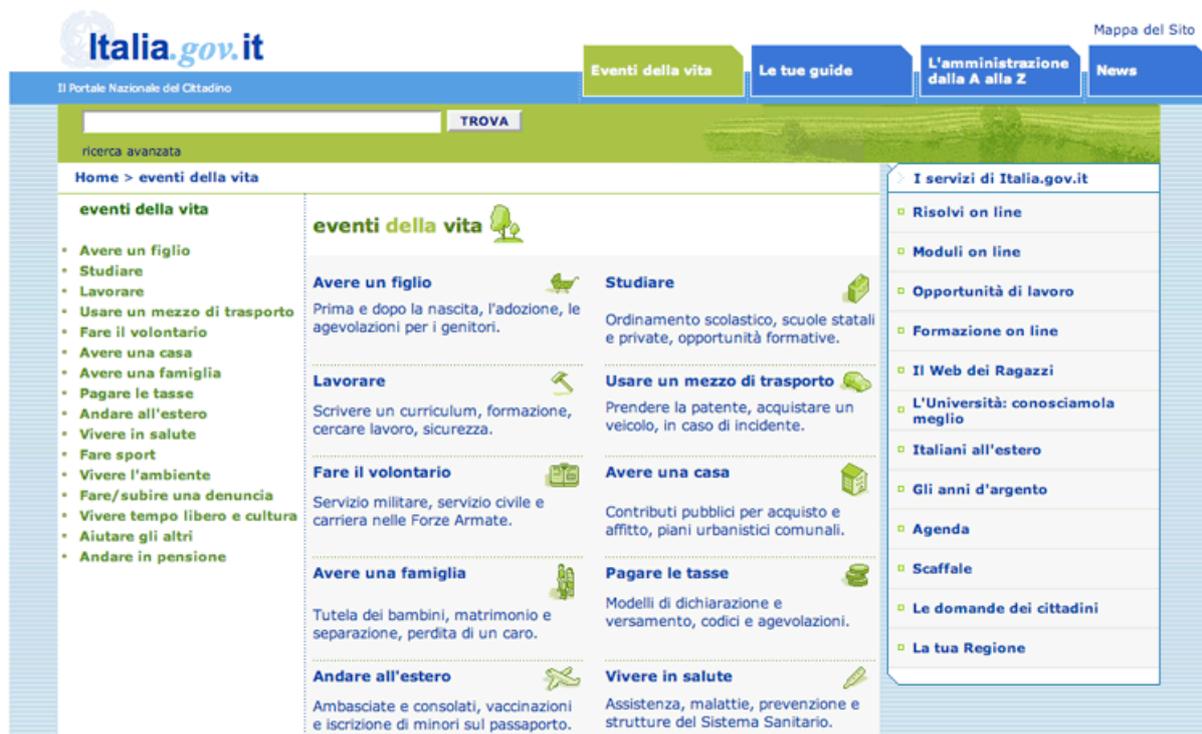


Figure 1 - Italian Governmental website (Italia.gov.it), "Life Events" section.

Further problems are caused by the main section called «*Eventi della vita*» which encloses a list of sixteen "life events" (for example "having a baby" or "do sports"). The core idea of this division seems to be an intuitive and auto-explanatory way to arrange public services, but since it offers only a single path to access them, it automatically excludes other interpretation of the single services. The presence of a second key section («*Le tue guide*», i.e. "your guides") entails even more confusion. It is organized just like «*Eventi della vita*» and therefore causes the same problems. The difference between the two sections is not clear, not even in lower levels of the site. Their contents partially overlap and it is impossible to perceive a valid reason that explains why some services are located in both sections, others only in one. There are only few references that help users to make out the presence of similar arguments in different parts of the site. We would like to illustrate this problem

² For more information about mental models refer to McDaniel (2003).

with the Figure 2, which represents a schematic diagram of the Italian governmental website.

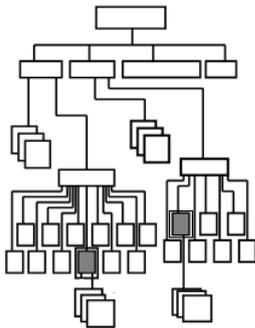


Figure 2 - Hierarchical model of the Italian governmental website.

The two grey rectangles visualize where you can inform yourself about the topic unemployment. Unfortunately it is unlikely that users are able to gather all information about this subject, since there are information positioned in totally different sections and there are no references to bring them together. That is why users over and over again exploit only parts of the capability of site without even imagining the presence of additionally particulars. Poorly chosen terminology for the categories causes even more misunderstandings and disorientation.

Faceted Classification: and alternative structure for the governmental website

I would like to introduce an alternative kind of organizing information for the governmental website using the principles of the faceted classification. Rosenfeld and Morville (2002) explain the main difference between the hierarchical and the faceted classification by means of two questions: to insert a new item, the old model, questions «**Where do I put this**» the second one asks «**How do I describe this**». This approach admits several points of view of the same service. For example, the description of the service «Job search by labour offices»³ can be:

- Who is interested?
- What is it about?
- What public administrations does it concern?
- Where do I look for a job?
- What can I do online?

³ One of the twenty basic public services selected by the Members of the European Community (Cap Gemini Ernst & Young's 2004)

An unemployed woman can start to look for a job in different ways:

- 1) She can identify herself as a woman and this method leads her to all information concerning women.
- 2) She can begin her research with subject: «Job» and in this way she will receive all information about employment in general.
- 3) She can nominate the competent authority and find all the information that concerns this public administration.
- 4) If she wants to stay in a certain area she can start her search specifying the location.
- 5) Being informed about the online availability of the service she can advance entering what she wants to do online (gather information, fill in a form etc.)

This method permits different interpretations of the same service and consequently several mental models. **For that reason the possibility that users will achieve their aspiration increases extremely.**

An Italian project for e-government was made by CSI Piemonte, a public consortium for regional computer services in Piedmont, Italy (Rosati, Gnoli and Lai 2005). Applying the studies of the Classification Research Group (Vickery 1960), they found eight facets appearing to be suitable for the classification of community resources. Each facet with the category to which it has been assigned is reported below:

Services and cases ⇒	Objects
Life aspects ⇒	Kinds
Access mode ⇒	Properties
Steps ⇒	Operations
Citizens and companies ⇒	Patients
Public institutions ⇒	Agents
Geographic departments ⇒	Space
Dates ⇒	Time

Subclasses have then been listed within each facet, on the basis of the literary warrant of the considered corpus of subjects. An helpful sequence has been established within each facet, according to criteria of logic, of temporal sequence in life events or in case stages to be followed, of geographical position, of hierarchy between institutions, etc.

The associative model of Direct.gov.uk

In the last years the English website has widely changed. At the beginning of 2004 it was still called **UKonline.gov.uk** and in fact it was organized rather like the Italian website⁴. In April 2004 **Direct.gov.uk** was introduced and structured in a completely different manner. Abandoning the hierarchical model and employing the RDF (Resource Description Framework)⁵ it organizes information similarly to the faceted classification. Indeed **public services are accessible by means of many different paths**. This method is visibly pointed out by the two main sections «*Straight to...*» and «*People*» which offer two different ways to start searching: the first one by subject and the second one by user groups. Further categories like «*Popular now*», «*Top choices*», «*Do it online*» and «*Guide to govt*» propose additional points of departure for a possible research.

The screenshot shows the Direct.gov.uk homepage with an orange header. The header includes the logo, the tagline "Straight through to public services", a search bar, and navigation links for Accessibility, Help, Site index, and Contacts. Below the header is a secondary navigation menu with links for Home, Directories, Guide to Govt, Do it online, and Newsroom, along with the date Friday, 22 July 2005. The main content area is divided into several sections: "Straight to..." with categories like Education and learning, Home and community, Money, tax and benefits, Travel and transport, Crime, justice and the law, Motoring, Employment, Health and well-being, Leisure and recreation, and Rights and responsibilities; "People" with categories like Parents, Disabled people, Over 50s, Britons living abroad, Caring for someone, and Young people; "Popular now" with a list of trending topics; and "Top choices" with a list of frequently accessed services.

Figure 3 - UK Governmental website (Direct.gov.uk), homepage.

We would like to emphasize benefits of the associative model with Figure 4, which illustrates various paths from the homepage to a particular information concerning unemployment within the British governmental website.

⁴ Designing the governmental website the Italian government follows the example of UKonline.gov.uk; for example the idea of the section «*Eventi della vita*» was actually copied from UKonline.gov.uk's «*Your life*».

⁵ For more information refer to W3C (2004), Rosati (2004b), Gnoli – Doldi (2005)

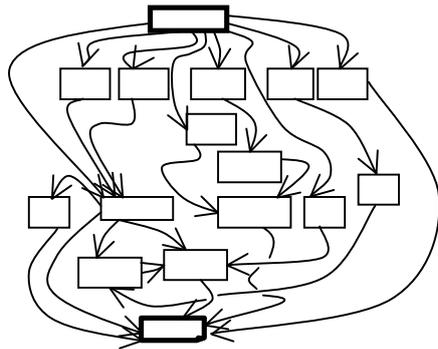


Figure 4 – Associative model of Direct.gov.uk

The characteristics of this structure are the numerous links between the single fields that take into account different interpretations of the single service and guide the user, never minding which way they choose, to the right information.

Due to a usability test ⁶, we were able to understand the reasoning that stands behind the evolution of the website. Studying deeply the method users apply to retrieve information, in June 2005 for the second time the creators of Directgov decided to utilize this knowledge to rearrange the contents of the site completely. Realizing that main part of the users scan the page for keywords and click on the most likely, they based the navigation on them. All categories of the two sections «Straight to...» and «People» are listed on the homepage and a part of their subcategories as well. Explaining in this manner the contents of the categories by their own subcategories, the information scent ⁷ is clearly perceptible. As a result, users are able to foresee the development of the research and feel encouraged and backed up.

Conclusion

In the last years scientists have started to discuss how much the hierarchical system actually represents our way of thinking. Arranging our everyday life, looking for ordinary things, do we really think in wide-ranging classes that get ever more definite and specific? Or does our mental system resemble a network that unites different items due to their relation? Directgov has employed a new way to arrange information and the result is an outstanding governmental website which is designed around the specific needs of different kinds of

⁶ The Directgov Helbdesk was so kind to provide us a usability test carried out for the Directgov website (Virtual Surveys 2004).

⁷ Information scent is the «[...] *imperfect, subjective, perception of the value, cost, or access path of information sources obtained from proximal cues, such as Web links, or icons representing the content sources* [...]» (Chi et al. 1999).

users. Are we drawing near a turning point as to information architecture? Is this signpost for a new area of organizing websites? Or do we jump to hasty conclusions? ⁸

References

Cap Gemini Ernst & Young's

2004 *Online Availability public services: How does Europe progress? Web based survey on electronic public services*. Report of the fifth measurement. October 2004
<http://europa.eu.int/information_society/soccul/egov/egov_benchmarking_2005.pdf>

Chi Ed H. – Pirolli, Peter – Chen, Kim – Pitkow, James

1999 *The Scent of a Site: A System for Analyzing and Predicting Information Scent, Usage, and Usability of a Web Site* <<http://www2.parc.com/istl/projects/uir/pubs/items/UIR-2000-01-Chi-CHI2000-WebVisualization.pdf>>

Cooper Alan – Reimann, Robert

2003 *About Face 2.0 - The Essential of Interaction Design*, Wiley, pag. 157

Denton, William

2003 *How to Make a Faceted Classification and Put It On the Web*,
<<http://www.miskatonic.org/library/facet-web-howto.html>>

Gnoli, Claudio – Doldi, Viviana

2005 *Grafi e classificazione*. Intervento alla tavola rotonda "Web semantico: sintesi e proposte". Prato, January 25th 2005
<<http://eprints.rclis.org/archive/00003076/01/grafi.pdf>>

Gobbi, Norman

2004 *Internet quale antidoto per la burocrazia*,
<<http://www.ti-promotion.ch/doc1.asp?articoloId=28&tipo=Informazione&pg=4>>

McDaniel, Scott

2003 *What's Your Idea of Mental Models* <http://www.boxesandarrows.com/archives/whats_your_idea_of_a_mental_model.php>

Merholz, Peter

2001 *Innovation in Classification*
<<http://www.peterme.com/archives/00000063.html>>

Postai, Sofia

2004 *Oltre il modello ad albero, facilitare la reperibilità dell'informazione: La classificazione a faccette* <<http://www.tecnichenuove.com/Extra/Riviste/Internet.pro/INPro0401-054-ArchFaccette.pdf>>

⁸ Refer to Cooper - Reimann (2003).

Rosati, Luca

- 2004a *La classificazione a faccette per la Pubblica Amministrazione*,
<[http://www.trovabile.org/classificazione a faccette per la pa](http://www.trovabile.org/classificazione_a_faccette_per_la_pa)>
2004b *Le faccette, il web semantico e l'ornitorinco*,
<[http://www.trovabile.org/faccette web semantico ornitorinco](http://www.trovabile.org/faccette_web_semantico_ornitorinco)>

Rosati, Luca – Gnoli, Claudio – Lai, Maria Elisabetta

- 2004 *Faceted classification for community services*
<http://trovabile.org/download/gnoli_lai_rosati.pdf>.
2005 *Faceted Classification for Community Services Using CRG Standard Categories*, in Gascón / Burguillos (a cura de), *La dimensión humana de la organización del conocimiento*, 7o Congreso del Capítulo Español de ISKO, Barcelona, Universitat de Barcelona, Departament de Biblioteconomia i Documentació, 2005, pp. 549-556.

Rosenfeld, Louis – Morville, Peter

- 2002 *Information Architecture for the World Wide Web*, 2nd ed., O'Reilly & Associates Inc., USA

Stengel, Will

- 2004 *Directgov straight through to public services. The Forum*. Office of e-Envoy
<[http://www.theforum.gov.uk/events/presentations/305,2,Back in 1999](http://www.theforum.gov.uk/events/presentations/305,2,Back%20in%201999)>

Vickery, Brian C.

- 1960 *Faceted classification: a guide to the construction and use of special schemes*. London: Aslib, 1960

Virtual Surveys

- 2004 *Directgov Usability*. Prepared for: COI / Office of the e-Envoy, Marzo 2004
Ref: VSL 1067 (usability test, not published, obtained from the Directgov Helpdesk)

W3C

- 2004 *RDF Primer*. W3C Recommendation 10 February 2004. Editors: Manola, Frank – Miller Eric. <<http://www.w3.org/TR/2004/REC-rdf-primer-20040210/>>