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Cultural contexts and governmental digital reporting

Manuel Pedro Rodríguez Bolívar, Carmen Caba Pérez and Antonio M. López Hernández

Abstract

The way in which public sector entities disseminate information publicly is affected by the degree of transparency adopted, and the construction and management of websites are increasingly essential elements of modern public administration. Nonetheless, differences in this process exist among governments worldwide, probably due to different contextual factors. This article examines and discusses the approach of Anglo-Saxon, South American and Continental European central governments to the use of the Web as a means of making financial disclosures. To measure the disclosure of governmental financial information on the Internet, an index has been defined, taking into consideration the data considered to be relevant for a potential user, gathering the data visiting their websites. The results show that the way different countries use the Web for financial disclosure is deeply rooted in and follows from their administrative culture. In conclusion, the Continental European and South American governments should improve their digital reporting.

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Points for practitioners
Our contribution in this article for the public administrators’ practitioners is threefold. First, this article may reveal some of the items that are essential in a digital model when a public administration introduces financial information in its official website. Second, the article could contribute to encouraging a benchmarking process among different public administrations, helping to harmonize the public sector financial information in the website. Finally, the article may be a useful instrument for the public administrators to auto-evaluate the public financial information on their websites.

Introduction
Although New Public Management (NPM) postulates have been expanding in the Anglo-American administrative culture model (Aucoin, 1990; Pollitt, 1990; Hood, 1991), supranational organizations and bodies (OECD, World Bank, IMF) have spread the Anglo-American experience all over the world. European Union countries have been pressured by the external context to introduce changes in their public administration in accordance with the NPM doctrine (Torres and Pina, 2004).

Indeed, although one of the most important claims currently made is that the public sector reforms have been more successfully implemented in majoritarian than in consensus democracies, Yesilkagit and De Vries (2004) show that far-reaching reforms can be implemented in consensus systems too.

In any case, the reform of public management systems has been characterized by a move towards a new management culture, inspired by various currents, with proposals such as opening public sector entities to competition, placing a greater emphasis on citizen satisfaction and on quality, providing more transparent information and updating control mechanisms. Therefore, increased involvement by citizens is one of the main foundations on which NPM is built (OECD, 1991). Thus, the role of citizens changes from that of a passive attitude (recipient of public services and voter) to an active one (stakeholder, consumer and citizen) (Gyford, 1991). In this context, the accountability of public entities is enhanced, and information transparency is a key factor in achieving this objective. Thus, public administrations should consider the use of tools to improve the rendering of public services and to achieve increased transparency in public information.

Given that public sector entities are publicly financed, the information they provide should offer answers concerning the use of resources and the results of government management. However, although most countries produce governmental financial information for the purposes of accountability, it has often been observed that the public have difficulty in accessing it (Tayib et al., 1999), which, in practice, implies a lack of information transparency. New technologies could bring about a change in government information policy and it could help to meet the objectives of NPM and may comprise the best means of disclosing public information and of achieving information transparency — the advantages of state financial communication provided by digital means can be seen in Caba et al. (2005).

Although the current demand for online governmental financial information and e-services is not particularly significant (ICMA, 2002; Dugdale et al., 2005), this aspect...
will foreseeably be of greater significance in the future, and more and more citizens will look for government information on the Web instead of searching through the Yellow Pages (Layne and Lee, 2001). Nonetheless, while in the business sector numerous studies analysing online financial reporting have been produced, both by academics (Beattie, 1999; Craven and Marston, 1999; Lymer, 1997; Gray and Debreceny, 1997) and by standards-issuing organizations (ICAEW, 1998; FASB, 2001; IASC, 1999), very little analysis has been done in the case of public administrations. Furthermore, it is foreseen that the differential implementation of NPM postulates will imply different conceptions of information transparency and, therefore, different levels of development of governmental web pages and different degrees of disclosure of financial information.

This state of the art led us to inquire whether the central governments of certain countries considered to operate under the Anglo-Saxon, the South American or the Continental European approach use the World Wide Web as a means of making public financial disclosures, thus facilitating their consultation. Our contribution in this article is threefold: the first objective is to propose a model for online governmental financial reporting. Secondly, the proposed model is applied to the central governments of the sample countries examined, so as to compare the achievements of the initiatives to promote online financial governmental disclosures, in the different approaches analysed. This comparison may reveal how useful the different websites are, thus contributing to encouraging a benchmarking process among different public administration approaches, as well as to identifying and disseminating best practices. Third, is to determine whether the differences in the results obtained can be explained in terms of different cultural contexts in which apparently identical concepts have been transposed.

The article is organized as follows: first, it identifies the main factors in the implementation of NPM and some hypotheses are formulated. We then go on to describe the research methodology. The empirical results are presented in the fourth section of the article. Finally, we highlight the main conclusions of our research and discuss the potential implications.

Different implementations of NPM, information transparency and Internet reporting

As previously noted, governments all over the world have reformed their public administration in accordance with the NPM doctrine. Key aspects of NPM postulates such as transparency and citizen satisfaction can be met with the use of new technologies (Welch and Hinnant, 2002). Therefore, it is foreseen that government services will thus be made directly and easily accessible to the public and that better use and dissemination of information will be achieved. Aware of the different possibilities of new technologies and their uses, in this article we focus on the Internet, as this is one of the tools most widely used by the public, and on access to online governmental financial information.

Although NPM postulates have been implemented by governments all over the world, this implementation has been done in different ways. The differences seem to lie in the various concepts of state and the separation doctrine underlying adminis-
The particular approach adopted to NPM may influence different policies concerning opening up the administration to competition, and may lead to a greater emphasis on citizen satisfaction and on the concepts of information quality and transparency. Therefore, it is expected that the information that governments provide and the use made of information and communication technologies — particularly the Web — to disclose this information could present certain differences among countries worldwide. Indeed, there is no single prescription for an optimum policy. For any government, the approach taken depends on its particular circumstances, because the context is crucial (Zussman, 2002).

Despite the above comments, the implementation of NPM has in fact been similar among countries that share some cultural values, represented in key factors such as the influence of international financial bodies, the influence of public sector reforms implemented in neighbouring countries and, of overriding importance, the sense of state and public administration. These factors influence contextual norms and contribute the emphasis on transparency attributed to NPM systems.

This article is focused on the governmental financial information that central governments disclose on their official websites, and we examine three different approaches, termed Anglo-Saxon, South American and Continental European. The term Anglo-Saxon is applied to countries such as the UK, the USA, Australia and New Zealand. Under the heading of South American countries are countries such as Argentina, Colombia, Peru and Paraguay. Finally, by Continental European we refer to Mediterranean countries such as Italy, Portugal and Spain.

From a European point of view, public administration and state apparatus are almost synonymous, and references to the state as defining public administration are conventional. In fact, the state is the defining source for the scope and substance of public administration (Stillman, 1999: 252). Thus, in Continental Europe, the interpretation of the separation of powers reflects the influence of Rousseau, according to whom sovereignty cannot be divided (Rutgers, 2000). The powers are considered internal state functions (Rutgers, 2000). In this milieu, the concept of public administration is, in essence, deduced from the concept of state. Administration is regarded as a function of the state or ‘the working State’ (Rutgers, 2001). Administration has its own legitimacy and not just authority derived from, for instance, elected political officers.

By contrast, the idea of statelessness is an important factor in administrative thought in Anglo-Saxon countries (Rutgers, 2001). In these countries, especially the USA, the separation doctrine is firmly settled and the three powers are clearly distinguished. Therefore, in this tradition, government, and not state, is the core concept and the meaning and scope of public administration cannot acquire a legitimacy of its own next to the political function in society (Rutgers, 2001). Indeed, administration is viewed as an appendage to the separation of powers (Rutgers, 2000).

This different approach is crucial in order to understand the distinction between the Continental European and Anglo-Saxon cultures of public administration (Rutgers, 2001). In fact, whereas state societies are characterized by their specific tradition of regarding the state as an institution that embodies the public power, stateless societies are characterized by pluralism, representation and a debating tradition (Dyson, 1980).
Finally, the South American countries have also been influenced by the European public administration point of view, but the serious fiscal crisis they have had to face in recent years has obliged them to become involved in state reforms based on the Anglo-Saxon culture of public management. As a result, recent years have seen a mixture of the two influences in South American countries, namely the Iberian-American and the Anglo-Saxon traditions.

One of the key factors distinguishing these approaches is the regulatory framework. This is considered a central requirement for a successful government response to the challenge of globalization (OECD, 1997). The European positive law tradition, unlike the American common law tradition, decisively influences the content, logic and institutional autonomy of its public administration, particularly on the Continent (Stillman, 1999). If the Anglo-Saxon common law tradition builds up precedents based upon an accumulation of discrete cases, the positive law tradition works in reverse, deducing from general, statewide legal principles to decide rulings in discrete cases. Therefore, this is a fundamental difference between Continental European and Anglo-Saxon culture, a deductive versus an inductive way of thinking about the field of public administration. Continental Europeans deduce public administration from reasons of state whereas America’s missing sense of state forces it to induce state from public administration (Stillman, 1999).

In conclusion, in Continental European countries, public administration is understood primarily as state administration and its study has strong roots in the study of law (Raadschelders and Rutgers, 1999).

The South American countries are also influenced by a positive law profile. They have taken on protectionist policies, mainly owing to the predominant law culture (CLAD, 1998). Nevertheless, in the last few years, these countries have undertaken state reforms that have led them to evolve from a structure based on centralized rules to one sustained by the responsibility of administrators and endorsed by effective results (CLAD, 1998). Furthermore, the provision of services is aimed at the citizen-user and citizens are encouraged to participate both in public policy evaluation and in management, particularly in the social area. Therefore, these public administration reforms can be considered to be based on the Anglo-Saxon culture of public administration.

In this context, the use of the Internet for the disclosure of information and to render public sector services is mainly a tool of NPM in the common law profile, whereas in the positive law profile it is a driving force to improve the quality of public services.

Taking these observations into account, differences are to be expected in the disclosure of governmental financial information on the Internet between countries, depending on whether the inductive or the deductive approach to administration is adopted. On the other hand, as countries based upon a positive law tradition have administrative law as their foundation, the state budget plays a leading role in the regulation of accounting practice. Consequently, these countries would be expected to disclose greater budgetary information than those operating under common law tradition. The following statement to be tested is therefore derived:
There are differences in the disclosure of governmental financial information and budgetary information on the Internet between countries under inductive versus deductive approaches.

Finally, as countries under the common law profile are considered to be customer oriented, it is expected that these countries should better meet the qualitative characteristics of accounting information and respond better to aspects of website design, navigability and accessibility of the information provided on the Internet, to make such information easily accessible to the public. The following statements to be tested are therefore derived:

(b) There are differences between central governments under a common law profile and under a positive law profile as regards their fulfilment of qualitative characteristics of accounting information.

(c) There exist differences between central governments under a common law profile and under a positive law profile in fulfilling aspects of website design, navigability and the accessibility of the information provided on the Internet.

Description of the research methodology

Based on research papers written by Eschenfelder et al. (1997), Condit and Fagan (2001), Ettredge et al. (2001) and Huang and Chao (2001), an index of Internet disclosure has been defined to measure the disclosure of governmental financial information on the Internet, taking into consideration the data considered to be relevant for a potential user.

To gather this data, we visited the websites of the responsible bodies of each central government that is analysed in this article. Therefore, we have consulted the Department of Finance’s website of each one of the sample governments. This is the department in which both the responsible accounting office and the responsible budgetary office are often included. If the responsible office has a website other than that of the Department of Finance, we applied the research methodology to the website(s) of the office responsible whenever a link to it exists on the Department of Finance websites. To gather the information used for our research, the websites of these agencies were analysed during January–February 2005 (see Appendix 1).

To collect the data to be included in the disclosure index, a score table was developed. The selected items in the disclosure index were chosen on the basis of prior research on the private sector (Spaul, 1997; IASC, 1999; Pirchegger and Wagenhofer, 1999; Trites, 1999; FASB, 2000, 2001; Ettredge et al., 2001). Thus, the items used in our research study were adapted from harmonized frameworks for structuring financial reporting on the private sector to the context of public administration. Therefore, the selected items included in the definition of the disclosure index are essential ones that a digital model of public financial information should contain.

These selected items are separated into three different sections, according to the nature of the analysis made. In the first section, an analysis is made of the financial online disclosures of sample governments. The second section is dedicated to six main qualitative characteristics that financial information should present to make it useful for users. Finally, the way a website is designed, the tools it uses and the
navigation system it employs will aid or impede a visitor’s ability to find and under-
stand governmental information. Consequently, the presence of some basic ele-
ments with regard to the design and navigability of the corporate websites, as well 
as accessibility to the information, are considered in the third section of the study.

**Type of financial information disclosed online**

With regard to digital financial reporting, Lin and Raman (1998) affirm that the public 
would be interested in accessing not only budgetary information but also financial 
position information. Likewise, as indicated in Tayib et al. (1999), they would be inter-
ested in additional information being provided by public administrations concerning 
the taxes collected and the management of those taxes. It is now broadly recognized 
that performance indicators are a useful instrument to evaluate public management, 
offering a greater knowledge of the efficiency, effectiveness and economy of public 
sector activities (AECA, 2001).

For this reason, we have distinguished three areas concerning the type of infor-
mation to be supplied: (a) budgetary information (the disclosure of the approved 
and executed budget); (b) financial position information (the disclosure of legally 
required annual reports, cash-flow information and public debt); and (c) performance 
indicators.

**Fulfilling the qualitative characteristic requirements of governmental financial 
information**

This section concerns the need for the financial information supplied to fulfil certain 
qualitative requirement characteristics that are broadly recognized in different con-
ceptual pronouncements. To achieve this aim, we describe those characteristics that, 
according to the literature on digital reports, are the most important in financial 
reporting. An overview of these pronouncements reveals the need to analyse the 
meeting of the following requirements of qualitative characteristics in the digital 
reporting of a government’s financial performance for each one of the information 
areas analysed:

(a) Completeness of the accounting information (FASB, 2000): the disclosure of 
legally required financial and budgetary information;

(b) Timeliness (ICAEW, 1998): the possibility of obtaining information more 
frequently than annually;

(c) Comparability (Spaul, 1997): access to governmental financial reporting for 
various fiscal years and the possibility of downloading comparative reports;

(d) Understandability or clarity (AICPA, 1994): the provision of ratios, graphs and 
commentaries on governmental financial information, the disclosure of 
summary reports and disclosure of governmental financial information in 
languages other than the official language(s) of the country;

(e) Relevance (Spaul, 1997): according to AECA (2002), to add relevance to the 
financial information it might be necessary to disclose technical reports on the 
Web, segregated information and consolidated information in formats that
allow the user to manipulate, to combine or to summarize the public financial information so that it can be adapted to particular needs;

(f) Reliability (AECA, 2001): the financial information must be audited and clearly differentiated from non-audited information (AECA, 2002).

Aspects related to the website design, navigability and accessibility of the information

This third section highlights the need to design a website that is easy to navigate and which provides easy access to the information made available. As this is an exploratory study of a model of digital governmental financial reporting, we have focused on analysing the presence of some of the basic aspects of website design that, in our opinion, could affect the availability of the governmental financial information. In particular, we have considered the presence or otherwise of four essential aspects that characterize its structure:

- **Easily identifiable information**: the inclusion of elements of the webpage that make searching for governmental financial information easier: a site map and a specific section called ‘financial information’ or similar containing all the state financial information offered and not just part of it.

- **Personalization of the information supplied depending on the user**: Identification of different user profiles to access the information, so that the demands of each type of user are met.

- **Identification of an updating calendar**: The disclosure of important dates on which it is foreseen that new financial information will be made available on the Internet.

- **Ease of interaction with the users of the information**: The inclusion of a mailing list service and a personalized information service to the user’s e-mail address.

As for the scoring of the different sections, in a similar way to the methodology adopted by Roberts (1991), West (2000, 2001, 2005), CYPRG (2001), Larrán and Giner (2002) and Caba et al. (2005), the items included in the three sections mentioned above have been evaluated on a binary scale, normally, depending on whether the websites meet the requisite or not. The objective is to reduce subjectivity when no explicit rules for scoring each topic are determined.

Thus, the scoring methods used for the sections are:

**First section** The budgetary information area and the financial position area are assigned 2 points each. This scoring is distributed with identical weighting within each group among the information observed. Due to the recent incorporation of the third group (performance indicators), we opted to assign it 1 point. The total score for this section is, therefore, 5 points.

**Second section** In a similar way to the scoring for the first section, we opted to assign an identical weighting to the six qualitative characteristics that are analysed — 2 points — and to each practice within each characteristic. Thus, the total score for this section is 12 points. As the number of items within each characteristic is not always the same, the sub-items do not always have the same score.
The scoring for the items included in this section has the following features:

- **Completeness of the information**: If all the data included in this characteristic are available on the website, a score of 2 points is assigned. If only some of the data are available, 1 point is assigned.

- **Timeliness of the information**: The regulatory framework often establishes annual reporting as a standard. Therefore, those public administrations that provide only yearly online information are assigned 0 points, since they are not considered to be using the potential of the Internet for improving the timeliness of financial information. It is of greater use for the information users if that information is supplied in the shortest time possible. For this reason, the monthly or weekly provision of information is assigned a score of 2 points. Finally, if this provision is less frequent than monthly but more than annually, 1 point is assigned.

- **Comparability of the information**: The two items included in this qualitative characteristic are assigned 1 point if they are present on the governmental website. AECA (2002) states that data must be provided on the webpage for at least five periods for it to be possible to analyse the progress of management. Nonetheless, we believe that three periods are enough to illustrate the evolution of the situation. For this reason a score of 0.5 points is assigned when information for 3–5 periods is included, and a score of 1 point is awarded when information for more than five periods is included on the website.

- **The understandability of the information**: There are four items, and 0.5 points are assigned to each one.

- **The relevance of the information**: In this category, the scoring is similar to that for the items included in the understandability category, but with one particular feature: in this case, we value the possibility of downloading the information in a format open to editing, such as xls, with a value of 0.25. The .html and .pdf and .doc formats are each given a non-weighted value of 0.125. Thus, those websites that provided all of these electronic format options would obtain, for this section, an overall non-weighted allocation of 0.5 points.

- Finally, a score of 2 points is assigned to the reliability of the financial information.

**Third section**  
In a similar way to the scoring for the first and second sections, we opted to assign an identical weighting to the four aspects analysed. Thus, a score of 2 points is assigned to each one.

The online governmental financial reporting index (ID) is defined by adding the scores of the three sections, i.e. the type of online financial information, the qualitative characteristics of governmental financial information and the aspects related to the website design, navigability and accessibility of the information. The characteristic of the second section depends on the type of information disclosed (see Table 1).

Therefore, the ID index is defined as:

\[ ID = ID_i + ID_c + ID_n = \left[ \frac{\sum Rapi}{5} + \frac{\sum (Rapi \times Rapc)}{56} + \frac{\sum Rapn}{8} \right] \times 100 \]

where \( Rapi \) is the mean of the scores of the information items assigned to each group of sample governments, \( Rap \) is the mean of the scores for each item of the
Table 1  Scoring system

<table>
<thead>
<tr>
<th></th>
<th>Budgetary information area (2 points)</th>
<th>Financial position information area (2 points)</th>
<th>No financial information (1 point)</th>
<th>Total</th>
<th>Rap,</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Approved budget</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td><strong>Executed budget</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td><strong>Cash-flow</strong></td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td><strong>Debt movement</strong></td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td><strong>Balance sheet</strong></td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td><strong>Operating result</strong></td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td><strong>Management indicators of the services provided</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Rap, × Rap,** scoring

<table>
<thead>
<tr>
<th>Score</th>
<th><strong>Budgetary information area</strong></th>
<th><strong>Financial position information area</strong></th>
<th><strong>No financial information</strong></th>
<th><strong>Total</strong></th>
<th><strong>Total</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approved budget</td>
<td>Executed budget</td>
<td>Cash-flow</td>
<td>Debt</td>
<td>Balance</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Completeness</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Timeliness</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Comparability</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Understability</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Relevance</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Rap, scoring

<table>
<thead>
<tr>
<th>Easily-identifiable information</th>
<th>Personalization of the information supplied depending on the use</th>
<th>Identification of an updating calendar</th>
<th>Ease of interaction with the users of the information</th>
<th>Total</th>
<th>Rap,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web-map</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Financial information link</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

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characteristics of the financial information and Rapn is the mean of the scores for each item concerning the navigability, design and accessibility of the website. The maximum score possible for each section, ∑Rapi, ∑Rapi × Rapc, ∑Rapn, is thus 5, 56 and 8 points, respectively. To assign an identical weighting to each one of the sections, we divided each section by this maximum score, and so ID has a maximum score of 3 points, or 300 percent.

It is also possible to obtain partial indices for each of the sections: ID, for the type of information supplied, IDc, for the characteristics of the financial information and IDn, for the navigability, design and accessibility of the website. These are derived by summing only the items presented in the corresponding section.

Results analysis

(a) Analysis of the differences for governmental financial disclosures and budgetary information on the Internet among countries using the inductive versus those using the deductive approach
The ID, scores show that the Anglo-Saxon countries (Group 2), i.e. Australia, New Zealand, the United Kingdom and the United States, score highest, accomplishing 100 percent of the online items of financial information proposed.

Analysis of the partial results shows that budgetary information is the information class that is disclosed by all sample governments. In fact, they disclose both the approved and the executed budget, thus accomplishing 100 percent of the recommended provision of information (Appendix 2).

With regard to online financial position information, the data obtained indicate that, in general, the mean of the scores is much lower than in the previous case for Groups 1 and 3. However, Group 2 obtained similar scores. In fact, the central governments in Group 1 accomplish only 67.5 percent of the items concerning financial information on their Department of Finance (or similar) websites, whereas the governments in Group 3 achieve 93.75 percent accomplishment.

Finally, there is a lack of disclosure of other non-financial information, such as performance indicators by the countries in Group 1, the partial index for this section receiving a zero score. In Group 3, only 25 percent of the items are accomplished, the standard deviation being 0.43.

On the whole, the Anglo-Saxon countries (Group 2), which most closely follow the inductive approach, are the ones achieving the best global results, followed by the South American countries of Group 3 (see Figure 1).

(b) Analysis of the differences between the central governments operating under a common law profile and those operating under a positive law profile in meeting qualitative characteristics of accounting information
With regard to the degree of fulfilment of the required qualitative characteristics for online public financial information, only the first group, that of the Continental European countries, fails to reach 50 percent of the recommended characteristics; both the Anglo-Saxon and the South American groups achieve this percentage.

With regard to the first characteristic in the second section (completeness of the
information), the Anglo-Saxon group of countries is the one that offers the most complete information, followed by those of Group 3.

Furthermore, it can be seen that in all the sample governments’ websites, the online budgetary information supplied is more complete than the financial information supplied. Only the central governments in the Anglo-Saxon countries disclose complete non-financial information (see Figure 2).

The results for the qualitative characteristic of timeliness of the information provided reveal that only the Anglo-Saxon central governments accomplish this characteristic on a high percentage of their websites (90 percent of the possible total scores). Thus, we conclude that the sample Continental European central governments do not consider that online information gives added value to potential users.

Analysis of results by area of information shows that the area of budgetary information tends to be the most timely among all the country groups, with monthly reports made available. The information on cash flow and debt movement also accomplishes this qualitative characteristic in a high percentage of cases. By contrast, the balance sheet and operation result statements are the least frequently provided.

The characteristic of comparability is accomplished in all sample groups, with the governments of Anglo-Saxon countries achieving an average of 53.73 percent, those of the South American countries 43.75 percent and those of the Continental European countries 37.5 percent.

In fact, all the sample groups directly supply the data needed to carry out analyses, making available on the Web the necessary data to make comparisons.
(Continental Europe group 27.5 percent; Anglo-Saxon group 43.73 percent; South American group 35 percent). On the other hand, the sample governments do not issue comparative studies and, hence, do not make them available on the Web for the user to evaluate the financial position of the entity over time.

Nonetheless, the budgetary information, both the approved and executed budget, is the type of information that is most suitable for comparisons among the three sample groups.

The characteristic of understandability is the qualitative characteristic that is least frequently accomplished in the findings of this research study. The Anglo-Saxon governments are the only ones that have made efforts to accomplish this characteristic, by disclosing their financial reporting in a more understandable way for users, by the inclusion of graphs, comments, reports ‘in brief’ and financial information in languages other than the official language of the country, in order to meet the information needs of a wider spectrum of users. Nonetheless, the latter aspect presents a lower degree of accomplishment than do the other parameters examined.

As for the relevance of the online financial information, the Anglo-Saxon governments largely accomplish the items selected in this study, with a degree of accomplishment of 76.4 percent of the items. Among the South American governments, 62.8 percent of the sample governments accomplish these items. It is also noteworthy that only the Anglo-Saxon governments disclose additional reports and segregate and consolidate information on their websites.

With regard to the electronic format used for the disclosure of governmental information, the South American governments are the only ones to use different electronic formats simultaneously. In fact, these governments often disclose information in .html or .pdf format. Furthermore, they usually use the .xls format to disclose information on the web. This electronic format is relevant for users because it enables them not only to download the information onto their PC, but also to create ad hoc reports.

Figure 2 Completeness
Finally, the analysis of the reliability of the information reveals that only the websites of the Anglo-Saxon governments include official annual governmental financial information that has been verified by external auditors (see Figure 3).

(c) Analysis of the differences between central governments under a common law profile and under a positive law profile as regards the fulfilment of aspects of website design, navigability and accessibility of information

To analyse this hypothesis, we need to mention the aspects concerning the last section of the questionnaire, dealing with the navigability, design and accessibility of the websites. It is observed that the ID achieved is the same for the sample Continental Europe and Anglo-Saxon groups, although they do not accomplish 50 percent of the recommended requisites for the websites.

To facilitate access to information, most of the sample websites include a specific section for governmental financial information. Similarly, 100 percent of the Anglo-Saxon governmental Web pages have a site map to help locate this section, whereas only 75 percent of the sample South American governments accomplish this item and the corresponding value for the sample Continental European governments is only 50 percent.

On the other hand, only the sample Continental Europe governments include a calendar of updatings. Thus, the updating of the various aspects of financial information is practically unknown to users.

As regards the personalization of the information, none of the sample websites has opted to establish profiles to facilitate access to the information according to the type of user.

Figure 3 Qualitative characteristic of the governmental financial information
Finally, concerning the characteristic of interactivity with the user, all the sample governments provide an e-mail address other than the webmaster’s e-mail. However, only 25 percent of the sample Anglo-Saxon governments provide users with the option to receive by electronic means periodic information on any new financial data included (see Figure 4).

In summary, the disclosure index (DI) is highest in the case of the Ministry of Finance Web pages published by the Anglo-Saxon countries, with a mean value of 207.62 percent. This scoring is distributed among each of the three analysed sections, the study revealing accomplishment rates of the selected items of 100 percent, 67 percent and 40.62 percent, respectively.

Conclusion and discussion

According to the results of the research study, the way different countries use the Web for financial disclosure is deeply rooted in and follows from their administrative culture. As countries have different administrative cultures, differences in the disclosure of financial reporting arise and are highlighted in this study.

The results indicate that the governments of countries where an inductive approach is adopted tend to make the best use of the Web’s potential as a means of improving the transparency of the information and their accountability to the citizens. These countries achieved higher scores than did the deductive approach countries, for all the sections of the research.

This result is similar to that revealed by West’s recent survey of websites (West, 2005). One conclusion of West’s study is that there are major differences in e-government performance between different world regions. In general, the countries in North America score the highest, followed by Asia, Western Europe, Pacific Ocean Islands, the Middle East, Eastern Europe, South America, Russia and Central Asia, Central America and Africa (West, 2005).
Thus, although all sample governments usually disclose budgetary information on the governmental website, governments adopting the deductive approach usually disclose online financial information in a lower degree of detail. In these countries, information tends to be overlapped and confused with users’ legal rights; the emphasis is traditionally put on budgetary information, not on the financial position of public entities. In contrast, the Anglo-Saxon and South American countries usually get higher scores for financial position information because they usually make balance sheets and operating income available on their Web pages.

As Anglo-Saxon countries are characterized by the doctrine of the separation of powers, greater emphasis is laid on output control and outcomes. Under this tradition, accountability is an important concept and the disclosure of performance indicators allows this need to be met. This explains why only in the countries adopting an inductive approach do the central governments disclose performance indicators on their websites. Moreover, in accordance with their more open style of administration and public management, the governments of these countries better match the above-described qualitative characteristics than do the other sample governments. These requirements of qualitative characteristics are better fulfilled by budgetary information than by online financial reporting.

In addition, whereas the Anglo-Saxon countries are very homogeneous in their achievement of the requirements of the qualitative characteristics (except regarding the completeness of the executed budget and the timeliness of financial information), the South American and Continental European countries show a high dispersion of the data for almost all the qualitative characteristics. Finally, the Continental European countries are the only ones that do not comply with 50 percent of the items defined for qualitative characteristics in this study.

With regard to website design, navigability and accessibility of the information on the Internet, the open administration style of public management as performed in Anglo-Saxon countries leads them to facilitate access to information. Thus, their websites include a specific section for governmental financial information and a site map to locate it. Nevertheless, in this section of the study there are no substantial differences among the sample countries. Indeed, on the whole, all the sample governments have made significant efforts to optimize the design of their websites, although none have believed it necessary to establish different user profiles for access to the information.

In conclusion, in our opinion, the governments operating under a deductive approach need to be more aware of the Web’s advantages for governmental financial disclosures to increase the transparency of their management. Therefore, the Continental European and South American governments should improve the governmental information disclosed on their websites. In any case, the influence of Anglo-Saxon culture on South American governments and the need to fight corruption in these countries makes them more aware of this need.

References


### Appendix 1 Website of the central administration financial information responsible

<table>
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<th>Department of finances or similar</th>
<th>Website consulted</th>
<th>Responsible office for the accounting</th>
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<th>Responsible office for the budgeting</th>
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### Appendix 1

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### Appendix 2

Arithmetic mean and standard deviation of the information areas

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<thead>
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<th>Budgetary information area</th>
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<th>Management indicators of the services provided</th>
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- **Mean**
- **Deviat.**

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#### Arithmetic mean of analysed groups

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Standard deviation of analysed groups

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G1: France, Portugal, Italy, Spain; G2: Australia, New Zealand, United Kingdom and United States; G3: Argentina, Colombia, Peru and Paraguay