

THE DEVELOPMENT OF A THEATRE/OPERA WEBSITE PATTERN BASED ON A USER NEED ASSESSMENT APPROACH¹

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Abstract

This paper presents the methodology used in the development of a theatre/opera website pattern and the structure of the resulted pattern. Our approach is based on the assessment of the existing websites for some well known theatres/operas and also on the assessment of potential users needs. The assessment of the existing websites consisted in an analysis of 10 websites based on the surprise indices. The assessment of the information needs of potential users resulted in the development of an exploratory questionnaire which was filled in by a 112 people coming from 12 countries sample. The results obtained at these two steps were mapped together in order to extract communalities or differences. These processes allowed us to identify the most relevant information or facilities categories which should be incorporated in a pattern. A last stage consisted in proposing the pattern based on the results obtained during the earlier steps.

Key-words: *pattern, websites design, usability, human factors, information needs*

1. Introduction

All over the past years an important concern within the designer's community was related to finding and summarizing the design knowledge and guidelines that would improve the design process. However, applying guidelines to the design process proved to be a very complex issue as design knowledge and guidelines are very numerous, and very dependent on the context.

As a result, scientist gave away the idea of offering software tools for working with guidelines in the favor of patterns as solutions to dome of the issues related to using guidelines in design (van Welie, van der Veer & Eliens, 2000).

Alexander (1977) has proposed for the first time the term of patterns in order to summarize and organize the most important principles and solution in the field of architecture and constructions. The principles and ideas proposed by Alexander are preserved when applying patterns to software development. Mainly, each pattern describes a problem that occurs often and offers the solution to that problem in a form that allows using this solution many times, in different ways. Norman (1988) is known to be the first

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one who proposed a pattern approach in architecture. Then, software designers have developed software design patterns. In Human Computer Interaction and User Interface Design this subject has gained popularity only recently. Guidelines have been for a long time the aid of designers in the development of user interfaces. The feature that distinguishes patterns from guidelines is often said to be only the manner they are written down. Although the more abstract and general guidelines can be written down in a template format, the same as patterns, van Welie et al (2000) claim that patterns represent proven design knowledge. In fact, they represent a proven solution to a design problem that appears frequently in a certain context.

The reason for which the elaboration patterns has become so popular in the user interface design realm is related to the fact that it was easy to establish an analogy with architecture as both domains are concerned with the way the physical space and its affect have an impact on personal and social behaviors and with the interplay of those spaces (Fincher, 2002). Sally Fincher (2002) adds another reason for the growing interest on patterns and this reason is related to the fact that the idea of patterns is “seductive” and makes sense to practicing designers as they are considered to embody considerable expertise in a distilled form. As a result, she considers that the work on patterns in the user interface design realm has been dominated by a search for form, a search that only recently has started to converge towards the construction of a pattern language.

1.2 Patterns in User Interface Design

The current research on software patterns has already produced a wide series of accepted solutions for user interface design that have a good impact on the development of design process. On the other hand, user interface design has become an important issue in the development of interactive systems and identifying user interface patterns in order to express solutions in an abstract and independent way has become the aim of many researchers in this field. The reason for this is that user interface patterns could lead to an increased automation and support for interactive software applications (Nunes, 2003).

Researchers’ interest in UI patterns, stimulated also by the development of the World Wide Web which focused the interest on constructing patterns for the design of web sites, resulted in the elaboration of some public pattern collections which are very well known today although there isn’t still a commonly accepted pattern language (van Welie & Traetteberg, 2000), nor a commonly accepted format and focus (Nunes, 2003). Van Welie & Traetteberg (2000) argue that the main concern in developing patterns should be on improving usability as many of the problems designers have during the design process and that are addressed in user interface design have no connection and produce no benefit for the end user. Researchers in UID underlie the fact that developing a pattern in this field is not an easy task and the structure of such a pattern is different from an architectural pattern. One of the most important features of an UID pattern is that it is suited to describe usability related problems (van Welie, Van der Veer & Eliens, 2000).

Starting from the definition given by Alexander (1977) UID researchers derived the fact that a pattern should offer instances of good design instead of vague and abstract rules, a proved solution to a problem and not just a theory. As a result, they must comprise also the rationale that underlies the proposed solution and a proof of this solution using examples in which the pattern worked. As a result, such a pattern should help the designers to built new instances using the core of the solution which it offers and adapting the patterns to their own specific purposes. Applied strictly to User Interface Design, the main concern of pattern development should be usability or “making the systems more usable for humans in the same way as Alexander’s pattern made living more pleasant to humans” (van Welie, Van der Veer & Eliens, 2000).

1.3 The structure of design patterns

As it has been stated, the main characteristic of UID pattern is that it approaches usability issues and it must at least attempt to improve usage indicators. Therefore, patterns should be based on an ergonomic principle (van Welie, Van der Veer & Eliens, 2000). On this idea the Amsterdam Pattern Collection was built and in our approach we will use the structure proposed for this pattern collection. As a result, the

patterns structure we are adopting in this research will be built on the following elements:

- The problem – in our research the problem refers to the situation when users need information about a theatre/opera house for the purpose of attending theatre's performances, visiting it, getting information about the repertory of the theatre, or getting information about other activities of the theatre;
- Use when – in this section we will use the information obtained from questionnaires about the main purposes of a theatre/opera websites.
- Solution – the content of this section will be based on the results of the questionnaire, because we know from there which would have to be the main sections of a theatre/opera website and the user actions that must be supported by the website;
- Why – on this section we will use the rationale of choosing a specific structure for a website and the arguments will be also based on the results from the first step in our research;
- Examples – this section will contain screenshots from the evaluated websites.

The ergonomic principle that underlies our approach is strongly related to the evaluation of users' information needs. The pattern we will propose will result from a complex process of evaluation of users information needs and also from the evaluation of different sites or design solutions that proved to work. We will map together the findings from these two processes and will propose a pattern built on these results in order to improve the usability and utility of websites.

2. Pattern development

2.1. The field of theatre/opera websites

This article describes a detailed study of some theatre/opera houses web sites in order to determine the characteristics of theatre houses websites design, to analyze their structure and content, and to find the possible improvements that can be made. We have chosen the present subject of study due to the fact that a nation or a country identifies her by the famous personalities born in that

country, famous cultural places and buildings belonging to that nation. That is why when you think about Italy you always think about Verdi, the Pisa Tower, Colosseum, or Scala from Milan; if you think about France certainly you will think about Rimbaud, Napoleon, Louvre or Moulin Rouge, as well as when you think about UK you think about Buckingham Palace, Shakespeare or Covent Garden. It is also obvious, that a certain possible visitor of these countries would try to visit the place where certain personality have lived or died or the well known buildings like some castles or theatres and perhaps, seeing a performance in one of the famous cultural places. We will focus on this paper only on the presence and presentation of well-known theatres and opera houses on the web. We have chosen this area of study because the Internet has become the most popular means of disseminating and finding the information. Places like theatres and opera houses are subject of interest for a category of population (the so called "theatergoers" or "audience"), but also for other categories of people (which will be mentioned later). That's why the way a theatre or an opera house is presented on the Web it's very important from different points of view and for different segments of population.

First of all we should start our approach in the domain of theatre (and opera) by clarifying the possible meanings of terms and if there are many possible interpretations, our choice and definition in the context of our study.

The MSN Encarta encyclopaedia defines the term "theatre" as follows: "*Theatre*, one of the oldest and most popular forms of entertainment, in which actors perform live for an audience on a stage or in another space designated for the performance. The space set aside for performances, either permanently or temporarily, is also known as a theatre."

"Opera - drama in which the text is set to music and staged. The texts of operas are sung, with singing and stage action nearly always given instrumental accompaniment. Many operas also feature instrumental interludes (called intermezzi) and dance scenes, even extended ballets that interrupt the action.

The same encyclopedia gives us the following definition for the term "opera house": "**theatre for operas**: a theatre that is designed for putting on operas. It is usually much more

ornate and sumptuous than a theatre designed for putting on plays.”

In the rest of the paper we will use the above-mentioned definitions for the terms “theatre”, “opera” and “opera house”.

Theatre can serve many ends. It can be designed to entertain, instruct, motivate, persuade, and even shock. But whatever the intentions of the director, performers, and crew, the result depends on the interaction with an audience. The audience for theatre differs from the reader of a novel or the viewer of a painting in that it assembles as a group at a given time and place to share in the performance with the actors and all the surrounding elements of light, sound, music, costumes, and scenery. The audience affects the performance by providing the performers with immediate feedback, such as laughter, tears, applause, or silence, so that there is continuous interaction between the auditorium and the stage. Some audiences want only to be entertained. Others want the theatre to provide new insight and understanding about political, social, or personal issues. Throughout history theatre has reflected and, at times, commented on the society in which it takes place. In many repressive and authoritarian regimes theatre provides entertainment to distract audiences from the brutal conditions under which they live or to serve as lessons in the virtues of the ruling powers. Ultimately, audiences make their opinions known through their attendance or non-attendance. They support what appeals to them and generally fail to support what they find distasteful, offensive, or incomprehensible.

2.2. Methods

Our approach on this subject includes a set of three steps:

- Analysis of users needs
- Evaluation of some well-known theatres websites
- Pattern development

2.2.1 Analysis of users needs

The research undertaken at this stage represents an exploratory study that aims at identifying what users want to see on the theatre/opera houses websites (information types) and what actions they would like to be able to perform on this type of websites (actions). The method we used for the assessment of information needs was based

on interviews which we made in order to identify the main categories of information and a second step consisted in the development of a questionnaire based on this dimensions. The dimensions we identified analyzing the interviews were mapped to the main dimensions of some well-known and the main dimensions of the questionnaire were established:

1. Access/information about theatre's services
2. Communication, interaction, opinions exchange
3. Tourist information
4. Information about theatre's staff
5. Information about historical evolution of the theatre
6. Information about theatre's management
7. Information about present and future projects

For each of these dimensions a group of five experts generated items which entered then in a procedure of redistribution on each dimension and only those items that met at least 70 percent of between rater agreement. In the end, a number of 43 items have been included in the questionnaire. Each item was rated on a 5 steps Likert scale ranging from completely useless to very useful information.

The questionnaire, built in English, has been administered to a non-random sample using an interactive web application which has been provided at <http://www.cs.ubbcluj.ro/~adriana/webapp/table.php>.

2.2.1.1 Participants

The sample included 112 volunteer participants. Their mean age was 27.54 and 49.1% were men and 50.9% were women. Participants came from many countries: 67% Romania, 12% Netherlands, 8% Spain, 1.8% Switzerland, 1.8% Poland, 3.6% USA, 0.9% France, 0.9% Leetonia, 0.9% Indonesia, 0.9% Germany, 0.9% Austria, 0.9% Republic of Moldavia). Also, regarding their occupations, the distribution of the sample was: 0.9% pilot, 0.9% account manager, 2.7% actor/actress, 0.9% sales representatives, 30.4% students, 4.5% high school teachers, 13.4% university teachers, 31.3% IT, 0.9% retired, 10.7% psychologists, 1.8% MD doctors, 1.8% administration personnel.

2.2.1.2. Procedure

Participants in this study filled in the questionnaire voluntarily. The instructions that preceded the application of the questionnaire were the following:

This questionnaire is designed to assess the most relevant types of information and actions that a theatre/opera website should provide. Please read carefully the statements listed and choose the answer that fits you best. There is no right or wrong answer and data collected by this survey are confidential and will be used only for academic purposes.

All the fields are required and for every question you should choose an answer.

2.2.1.3. Results

A first step in our analysis was the Alpha coefficients of the dimensions of the instrument as an indicator of the reliability of the results obtained with our questionnaire. The Alpha coefficient for the entire questionnaire was .89, a coefficient that indicates a good reliability of the instrument. Also, the coefficients for each dimension can be analyzed in Table 1.

Table 1. Alpha coefficients obtained for the questionnaire dimensions

Questionnaire dimensions	Alpha coefficients
Access/information about theatre's services	.78
Communication, interaction, opinions exchange	.63
Tourist information	.50
Information about theatre's staff	.63

Information about historical evolution of the theatre	.61
Information about present and future projects	.29
Information about theatre's management	.79
Entire instrument	.89

The analysis of the Alpha Coefficients for the scales indicates a satisfactory reliability with the exception of *tourist information* and *Information about present and future projects* scales which proved to lack a unitary and clear representation in our sample. Given the exploratory and descriptive goal of the instrument and the good overall reliability of the instrument we can conclude that there aren't any significant reliability issues but, for the following applications of the instrument we can propose a revision of the item distributions on these two low Alpha coefficient subscales.

This conclusion is supported also by the results of the exploratory factor analysis which indicates that our data converge towards a single main factor on which almost all the items of the questionnaire are loading. We can argue that the instrument we created has a one-dimensional structure focused mainly on the information about functional aspects of theatre/opera activity.

A second important step in our analysis is represented by the descriptive results for each of the 7 dimensions in order to determine which categories of information are perceived to be the most useful and should be included in a theatre/opera website. The means for each of the dimension can be analyzed in Figure 1.

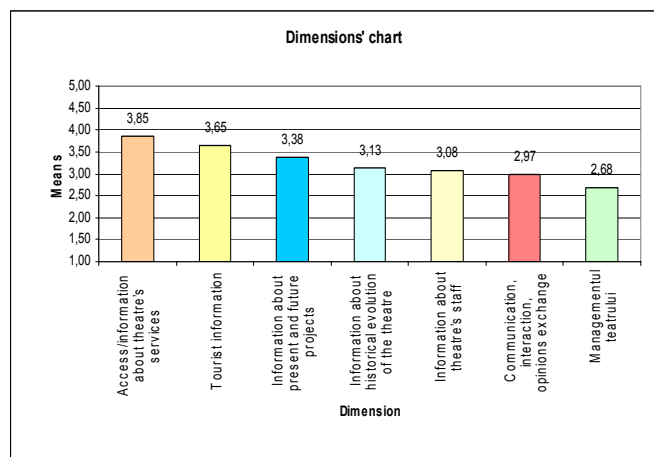


Figure 1. Means for the seven dimensions of the questionnaire.

Our results show that the dimensions which are perceived to be the most useful and must be included in a website are related to the access to shows or information about the theatre's services ($m=3.85$) followed by tourist information ($m=3.65$) and present and future projects ($m=3.38$). The lowest mean values were obtained for the communication ($m=2.97$) and theatre management ($m=2.67$) dimensions. The information belonging to these categories seem to be less important for our sample and are not essential when designing a website for this kind of users. Information that seems to be neutral from the point of view of its usefulness is that related to

the historical development of the theatre/opera houses ($m=3.13$) and theatre/opera personnel ($m=3.08$). These findings can be related to the nature and structure of our respondents sample which are mainly audience or visitors and very few of them interact with the theatre in ways that would support the importance of other categories of information.

Further, in order to identify which type of information should be the most visible when designing a theatre/opera website main page we analyzed the information rated with "extremely useful". The results we obtained are given in Figure 2.

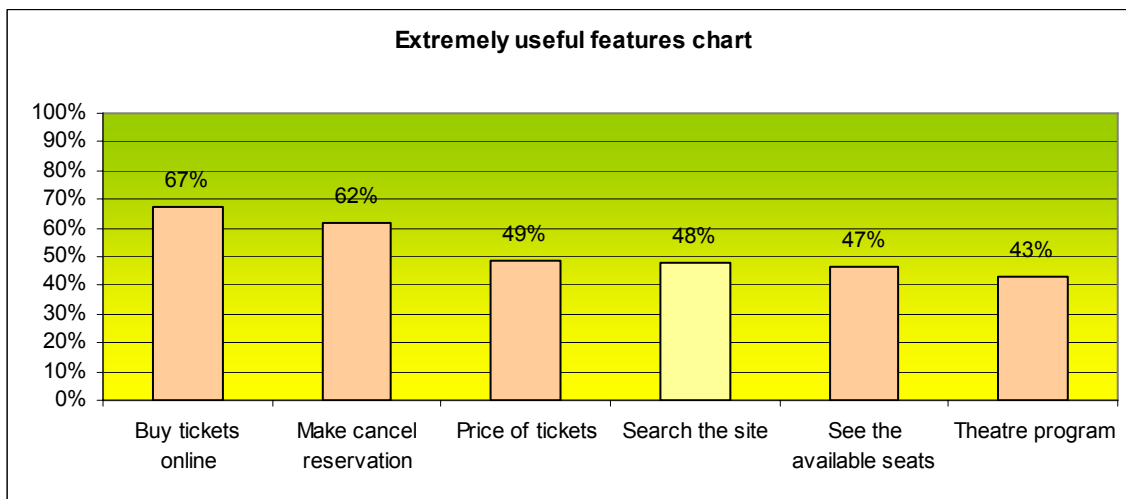


Figure 2. Theatre/opera websites characteristics rated to be "extremely useful".

Our results show that the characteristics considered to be the most useful in our samples are related to the access and information about the theatre's services. 67% of participants consider that the possibility of buying tickets online should be the main concern when designing a theatre/opera website and 62% of them consider that having the possibility of making or annulling reservations is also very useful. 49% of them want to have access to information related to the price of tickets, 47% consider that the website should enable them the opportunity of performing a search through the entire site, 46% want to be able to see which seats remained available and 43% of them consider that the site must present the theatre's program. If we analyze each of the resting dimensions we can observe that inside the tourist information dimension the highest

relevance is met by information regarding theatre's location and possibility of performing a search inside the website ($m>3,5$).

Inside the communication dimension the most important are considered to be the information about performances and the possibility to access reviews. The fourth dimension, theatre's staff, comprises only one relevant item, the one regarding the presentation of the artists. The possibilities of watching past shows or fragments from present shows and also of searching a data base with artists and shows are the most relevant elements of the historical development dimension. All the items of the theatre's projects are considered to be very relevant for our sample but inside the theatre's management dimension only the information regarding contact people is relevant.

The last analysis we performed was a correlation between all the dimensions of the questionnaire. The results (Table 2.) show that all the dimensions or subscales correlate positively and significantly with one another. These results support the idea of the one-dimensional character of the instrument (all the items being grouped around a single factor) and are concordant to the high reliability of the overall questionnaire.

Table 2. Correlation coefficients between all the dimensions of the questionnaire and the age of the participants.

	Managem.	Proiecte	Evol. Ist	Colectiv	Inf. turist	Comunic	Inf. acces	Varsta
Managem.	1.000							
Proiecte	.459	1.000						
Evol. Ist	.509	.347	1.000					
Colectiv	.671	.485	.372	1.000				
Inf. turist	.575	.454	.458	.629	1.000			
Comunic	.518	.299	.383	.446	.463	1.000		
Inf. acces	.319	.536	.256	.377	.485	.280	1.000	
Varsta	.169	-.092	-.013	.084	.059	-.007	-.128	1.000

A supplementary analysis was the correlation of all the subscales with the age of the participants but the results showed that there are no significant correlations. These results confirmed our expectations given the homogeneity and relative young age of the participants. As a result, the existence of significant relations between age and the relevance of certain dimension must be further investigated by including different age categories in the sample.

2.2.1.4. Discussion and conclusions

At this stage of analyzing the informational needs of the users we have identified the most relevant types of information or actions available on a theatre/opera website. Our data indicated that this information and actions refer to a functional dimension – granting access to performances, theatre’s program, the price of tickets and having the option of booking them online, of checking the available seats, of accessing specialized information about shows, information about theatre’s location, watching fragments of present and past performances and getting information about

the author, cast, plot of the plays, about present and future projects, prizes and providing them with contact data and the possibility of searching the website. As a result we are suggesting that these information categories should be the main elements of the homepage when designing a website for a theatre/opera house and users should be able to access them rapidly, performing very few actions.

As we have already mentioned this state of facts might be related to the fact that most of our sample belongs to the audience category. If we question a different category of people connected to the theatre/opera world, like actors/actresses, critics, theatre specialists, people from show business, events organizers, the information considered to be most relevant might be different. In order to verify this assumption we need to further investigate the differences between different types of users regarding informational needs. If such differences are found we will be able to propose the design of websites which can adapt to the needs of different types of users.

Although at the beginning of the investigation we started with the assumption that there are different categories of people who might be interested in having information about theatre/opera houses and accessing this information on a website, we defined their interests and actions, our sample didn’t comprise people from all these categories. As a result, the fact that our investigation indicated the information and actions related to the audience category to be the most relevant was not a surprise. A future direction of our investigation consists in analyzing the informational needs of people belonging to other categories of users.

The pattern we are proposing at the end of our paper, based on these results is suited mainly for those situations when the main goal of the theatre/opera is to inform and attract the audience using their websites and also to facilitate the access of the audience to performances by allowing specific actions on their websites. For more complex objectives like facilitating the contact with suppliers, contractors, people from show business or organizers etc., a further investigation is necessary in order to identify these people informational needs.

Moreover, we haven’t identified any relationship between the respondents’ age and their information preferences. An alternative explanation might be the structure of our

sample which was relatively homogenous and didn't allow the proper investigation of such a relationship. We will need to further investigate this subject also in order to be able to offer wider suggestions regarding the organization of theatre/opera websites.

In conclusion, as stated earlier, the main elements which should be present in a theatre/opera website, for an "audience" category of users, are related to the functional dimension of facilitating and granting access to performances and all types of information regarding these performances. Also, the results obtained allow us to argue that the questionnaire we developed proved to be a very useful tool for investigating the informational needs of theatre/opera website users and for establishing the main content categories of these websites depending on the different interests and status of different user categories.

2.2.2 Evaluation of some well-known theatre/opera houses websites

This step was necessary in order to get a picture of what is actually the situation of theatres websites, to compare the users' needs with what is offered to them, and also to make some design observations. We have been interested on studying the content, the interaction and presentation design, and we have based our study on the Amsterdam Pattern Collection, available at www.welie.com. In the chapters presenting the evaluation of websites we have made remarks about the proper usage of some patterns, about the patterns that we think would have been better to be used and they weren't used and the patterns used in a wrong manner. At the end of each evaluation section we have presented a statistic about the patterns on the specific website. We have chosen for evaluation the following ten websites:

- The 5th Avenue <http://www.5thavenuetheatre.org/>;
- Scala from Milan <http://www.teatroallascala.org/public/LaScala/index.html>;
- Sydney Opera House <http://www.sydneyoperahouse.com/> ;
- Moulin Rouge <http://www.moulinrouge.fr/home-flash-gb.html>;
- Royal Opera House Covent Garden <http://www.royalopera.org/>;

- The Shakespeare's Globe Theatre - <http://www.shakespeares-globe.org/>;
- Concertgebouw - <http://www.concertgebouw.nl/>;
- Odeon Theatre - www.teatrul-odeon.ro;
- New National Theatre Tokyo - www.nntt.jac.go.jp/cgi-bin/english/index.cgi;
- Baxter Theatre - www.baxter.co.za ;

The criteria on which these theatre websites have been chosen are based on the reputation of them (most of them are well-known theatre/opera houses), the geographic location (our intention was to cover a multitude of geographical and cultural regions). The number of the evaluated websites was determined by using the "surprise index" (Jordan, 1996), that means that we stopped when nothing new or surprising was present on the candidate websites for analysis.

2.2.2.1. Mapping the results from user needs assessment and well-known theatre/opera websites evaluation

After analyzing the 10 theatre web pages, we have summarized the features offered by the analyzed theatres in a table, containing on the rows the features (those mentioned on the questionnaire) and on the columns the names of the theatre/opera houses. If the theatre/opera house website offers information or supports an action, then the cell contains a "1". The last row of the table will contain the sum of the features offered by each theatre and the sum on rows will specify the number of theatres that provide information or support functionality. Functionalities or information provided by some theatre/opera websites that were not included in our questionnaire have been written down on the last rows of the table.

Based on the answers to the questionnaire people preferences have already been described and in this section we will present graphically the relation between the importance accorded by our respondents to a feature and the percent of our analyzed websites supporting the feature.

In our approach we have classified the theatre/opera house features in "extremely useful", "very useful", "useful but not essential", "less useful" and "not useful" features. We have classified the features in these categories based on people considering the feature as being one of the above-mentioned categories (if the largest category of our respondents

have considered a feature “extremely useful”, then the feature belong to the “extremely useful” category). In the following we will present the classification obtained from 112 respondents.

In this section we will present a graphical representation of the relation between the importance of the components of a category of features and the percent of support for that feature in the analyzed websites. The importance of the feature is represented with coloured bars (the green bars represent the measure of support). There is a separate graphic for the “extremely useful”, “very useful”, “useful but not essential”, and “less useful” categories.

The chart can be read in the following manner (Figure 3): the “buy tickets online” feature was considered “extremely useful” by 67 % of our respondents and is supported by 80% of the analyzed websites. The colour of bars indicates that most features of this category belong to “Access information about theatres services” and “Tourist information” dimensions.

Figure 3 shows that the “extremely useful” features are generally well supported by the analyzed websites, excepting the functionality of seeing the available seats for the next performances and searching the site

Figure 4 shows that there are some “very useful” features that aren’t well supported on the analyzed websites, like the details about the present artists and the option of browsing a database containing actors,

performances, castings and other information related to theatre/opera’s performances. Although that almost 30% of persons considered the option of applying online your CV for job openings, none of the theatres offered this functionality.

The category of “useful but not essential” features contains the greatest number of items, belonging to different dimensions. We can see from the chart that many people would be interested on making comments for critical reviews, but only one of the analyzed sites offers this functionality. The same situation is occurred when we talk about exchanging opinions (in forums) or sending messages directly to artists – people would be interested on this kind of communication, but only 2, respective 1 site(s) support the mentioned features. The results of the questionnaire show that people would like to know more about the theatre’s past and present activities (information about awarded shows, stars in the history of the theatre, theatre festivals would be interesting for a large amount of people).

The “less useful” features category contains items referring to the technical details of the theatre and the theatre’s management. These items may be subject of interest for institutions interested in collaborating with the theatre/opera house for common projects/interests. As we can see in Figure 6, these details are provided by more than half of the analyzed websites, but they are not very interesting for people.

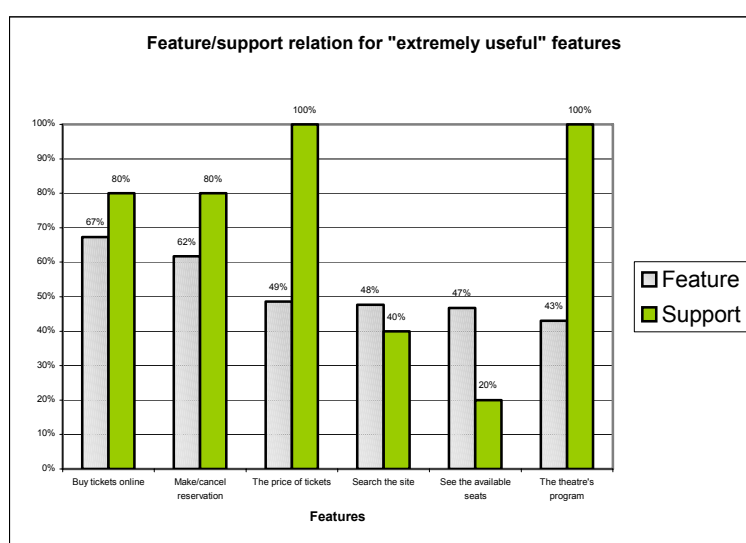


Figure 3. Feature/support relation for “extremely useful” features.

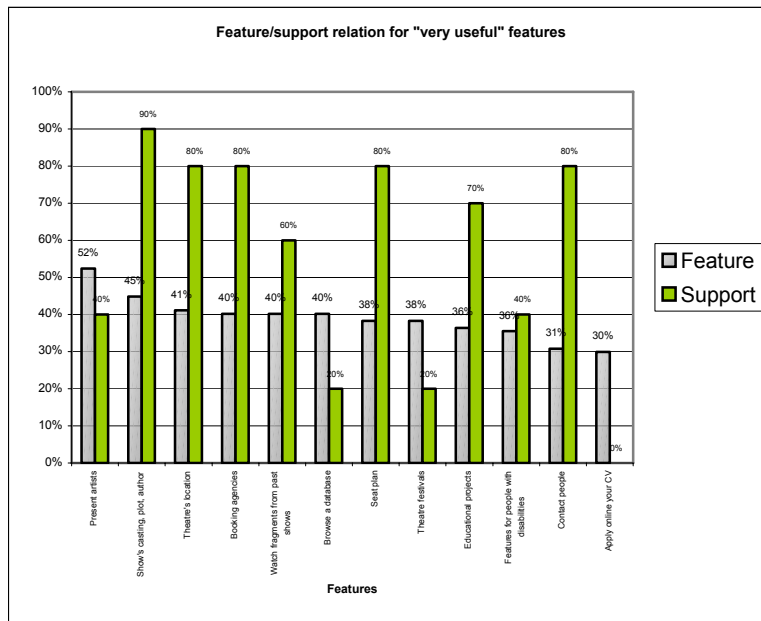


Figure 4. Feature/support relation for "very useful " features

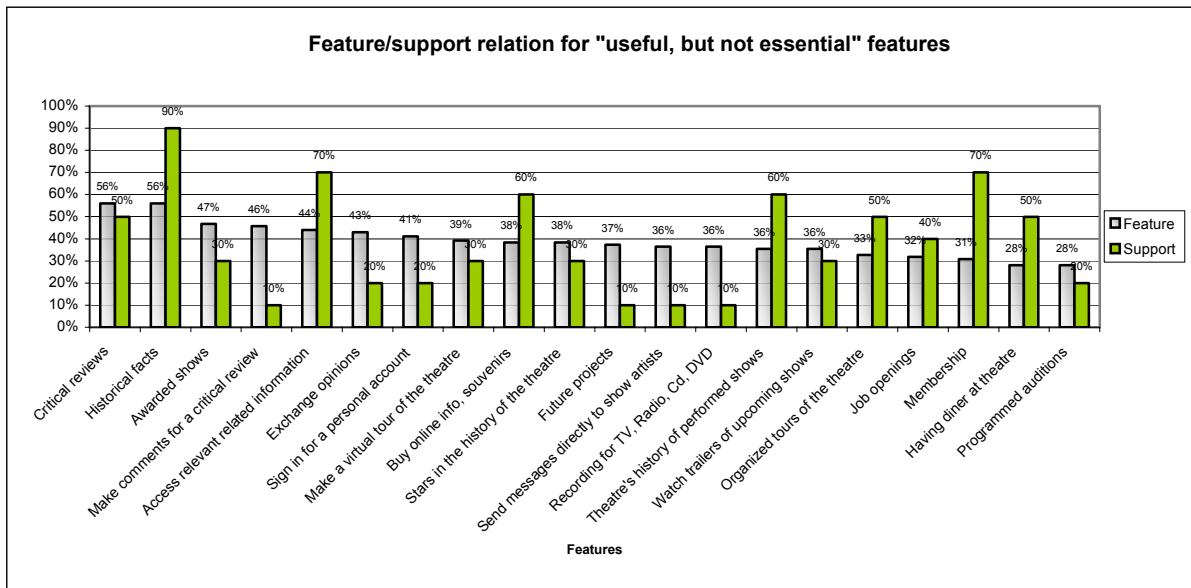


Figure 5. Feature/support relation for "useful but not essential" features

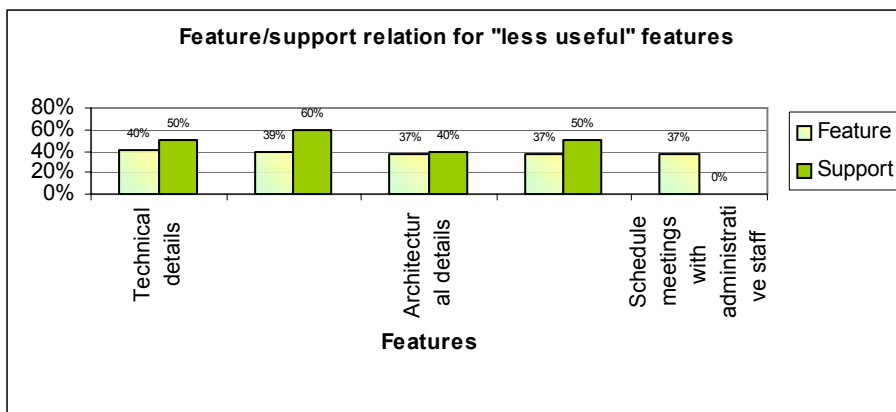


Figure 6. Feature/support relation for "less useful " features

This analysis indicates that even on very well know theatres' websites there are sections that do not correspond to the informational needs of the users. This fact can result in a low usability of these sites for the audience target users. As a result, the solution we are proposing as design pattern takes into consideration not only the information

categories considered to be most relevant for the users, but also the inconsistencies existing between these informational needs and the offer of most of the theatre/opera websites.

The theatre/opera house web site design pattern

From <http://www.sydneyoperahouse.com/>



3.1. Problem

Users want to get information about theatre/opera house performances, educational projects, performers and other activities of the theatre/opera. The main goal of users is to get access to theatre performances (performances, dates and hours, price of the tickets, ways of booking tickets, cast, facilities for different audience categories/groups) or to get information about other type of activities of the theatre (tours, educational projects, rehearsals).

3.2. Use when

You are designing a website for a theatre/opera house. A site of a theatre/opera house has the main goal of attracting people to participate to theatre/opera house performances. The special thing about theatre and opera performances (and the other "live" performances) is the interaction between the

audience and the performers. This relation established between the members of the audience and between the members of audience and performers can be a solid base in the process of creating a *Community Building* experience. The members of audience are willing to express their opinions about performances and the performers are eager to know the audience's opinion. Depending on the type of performances, a theatre house website could offer a *Fun* experience when presenting a certain performance (a theatre national or international tour presentation website is a good candidate for this kind of experience, determining the people to participate to the performance). Secondary goals may include raising funds by providing membership and sponsorship functionalities and presenting possibilities of events arrangements for special occasions like product launch, dinners, parties, etc. Theatres have a cultural mission in every community,

that's why the educational projects should be also presented on the website.

The target users for a theatre/opera website is formed by the members of the audience, but also another categories of people like researchers, students, educators, tourists or investors should be provided with interest specific information.

3.3. Solution

Create a website focusing on the access and information about theatre's services and on theatre/opera's performances and visitor information. The site should offer online ticket sale or reservation functionality, seeing the available seats and search functionality.

There are a variety of user tasks that a theatre/opera site needs to support. These typically include:

- Make/annul online reservations for performances
- See the theatre's venues, seat plan, view of the stage from a particular seat
- Search for the current performances and getting details about every performance
- See the available seats
- Browse a database with all actors/performances/casts
- Get information about the upcoming events (calendar)
- Obtain general visiting information
- Watch fragments from past shows
- Get information about educational projects
- Get details about features for people with disabilities
- Contact people
- Read a critical review/Make comments for a critical review
- Buy items at online shop
- Search for vacancies
- Get information about events arrangement
- Obtain research information (historical past, performed shows, stars in the history of the theatre)
- Subscribe to membership/sponsorship

A theatre/opera website should have the following sections:

- **What's playing** - this section has the functionality of informing the visitor about the current and future performances. If the theatre/opera house hosts different types of artistic performances (theatre/opera/ballet/symphonic concerts etc.) it's better to present the performances

classified on specific categories. Usually the performances are presented using a [Thumbnail](#) pattern (Web Design Patterns) containing the performance's poster or a picture from the performance accompanied by the title of the performance that is in fact a hyperlink to a more detailed page about the performance: cast, synopsis, duration, hyperlink to critical reviews and functionality of adding personal opinion about the performance, special offers for tickets and a hyperlink to booking online page. In this section a subsection containing performance packages is good to be presented. For every performance it is recommended to include the features supported for people with disabilities.

- **Calendar** – this section is dedicated to the goal of informing the visitor about the upcoming events that can take place in the theatre/opera house. These events can be performances, but also exhibitions, workshops, conferences or product launches. This section is implemented in the simplest way using a [Date Selector](#) pattern (Web Design Patterns). Selecting a date from the calendar, the user will see the available performances for the selected date. Some websites implement a more complex functionality, including also criteria like performance type when consulting the calendar. A nice feature is that of having a "my calendar" option, where people are adding the events of interest for the future period.
- **Ticket info** – this is the most important section when browsing the website of the theatre. Most of the people are interested in tickets' price for performances. It is good to provide the feature of consulting the seating plan and it is desirable that the visitor has the chance of seeing the available seats. Few theatre websites offer the opportunity of selecting a place and seeing the stage perspective from the selected place. In this section it is recommended to have an online help for online booking using a [Wizard](#) pattern. Details about booking can be included in a subsection called "how/when to book". Special offers and details about group booking or season subscriptions should be made available in a special subsection. The performance schedule should be made available from the ticket info context.
- **Plan your visit** - this section is dedicated to visitors from other parts, but it contains

also useful information about parking, access info, maps, directions, restaurants, in other words information about how to get to the theatre/opera house. This section should include box offices info. A virtual tour of the theatre/opera house can be an inviting factor in the decision of visiting the theatre/opera. If the theatre has an online shop, a link to the online shop could be provided from this section.

- **Help the theatre** – a section with the goal of raising funds through membership and sponsorship. This section could have separate subsection for individual donations, corporate sponsorship donors, and membership.
- **About us** – usually in this section information about the history of the theatre (foundation, including stars that have performed to the theatre, list of performances or archives containing fragments from shows) is presented. This information must be easy to browse, that's why a classification using a timeline for each category is a good idea. The educational projects where the theatre/opera house is involved should also be presented. This section could also include links to other corporation or institutions cooperating with the theatre (for costumes design, setting, lights, sound, etc).
- **Corporate** – a section containing information about sponsorship, careers (vacancies, requirements for the CV) and research information. In this section the theatre's staff must be presented, including managers, directors, and performers. If the number of persons presented is big, then an elegant solution is to use an

alphabetical index that contains the names of persons corresponding to each letter. Selecting a name, the visitor will see a biography of the person including performances, awards, and cooperation with other institutions.

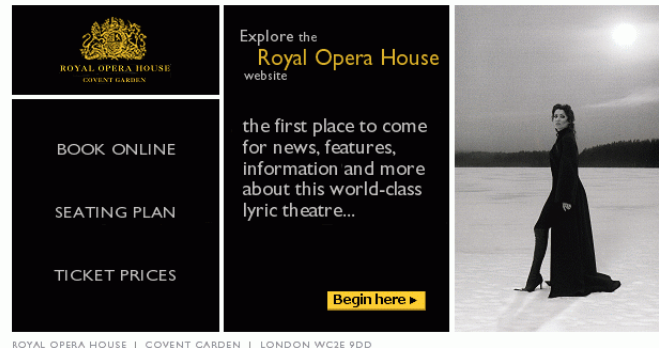
- **Shop** - visitors might want to buy theatre-related things like books, CDs, DVDs related to performances. Usually there is an online shop which is an [E-commerce](#) site. The user experience that is applied here is [Shopping](#).

The site should provide a [Simple Search](#) functionality giving the visitors the chance of searching the site. For categories of people with focused interests, an [Advanced Search](#) option is to be recommended.

3.4. Why

The content of theatre/opera house website should offer the information that most visitors need, that's why the details about theatre's program, ticket prices and seating plan should always be visible and easy to access. Most of visitors feel safe when they know that there is a search option that will give them the chance of finding the information needed. The experience of searching or browsing a database containing data about performances, artists, tours and festivals is very important for most of the visitors, that's why this option should be available. The details regarding a future visit are also important for those interested in visiting a theatre. People would feel more comfortable knowing everything about access, parking, and seat plan before getting into the theatre/opera house.

More examples



From <http://www.royalopera.org/>

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