



Full Length Research Article

THE DESIGN AND PRODUCTION OF NETWORK PROPAGANDA ANIMATION BASED ON HTML5

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ABSTRACT

With the rapid development of network, more and more desktop applications to web platform and traditional animation techniques based on Web platform is first draw good pictures on the server side, then the pictures sent to the browser, using flash or other third party plug-in display. This operation is not only a waste of resources, but also increases the complexity of system, so more art creators hope computer technology development to a more convenient production animation such as the web service function realization is simple, efficient, interactive animation effect. In 2004, the web hypertext application technology working group began work on HTML5 in the original HTML5 standard based on the introduction of some new label and application program interface (API), forming a new HTML5 draft standard. The standard development of web application browser plug-in to greatly reduce dependence on, HTML5 to save resources. It adopts the more pages of new elements, these elements can be combined better with the browser's rendering engine. Allow users to interact with the graphics or other elements of the web page, the current version of the mainstream browser (such as IE9, Chrome10 and Firefox4.0, etc.) has been widely supported. In the future of the Internet era, web applications will be fully into the HTML5 standard era. The Internet will also be a revolutionary change in HTML5, the rich and colorful network world will appear in front of us. This paper focuses on the network propaganda animation design and fabrication based on HTML5, the design diagram combined with HTML5, CSS3, JavaScript, jQuery design to achieve the suitable for network promotion need animation, it allows the user to know the product highlights, quickly learn to use them to improve their learning efficiency and work efficiency.

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INTRODUCTION

Based on the Internet Era HTML5 The network propaganda animation more and more fire. Even has been entitled CCTV also began to try this way, and the effect is very good. Recently, CCTV "home and everything" this propaganda is obtained One thousand More than a million people participate in, bring unimaginable communication effect. HTML5 Network propaganda animation, Micro Era Brand new path. A new way of brand communication has been opened [Flash et al., 2011]! When many companies have developed independent mobile client, HTML5 Network propaganda animation form of new products in the industry began to hot. many The recent big Has detonated round of social marketing, marketing means HTML5 Network propaganda forms are beginning to receive attention.

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The enterprise and the product display has a dynamic effect, interspersed with video, background music and other elements, the need of human interactive content switching, most HTML5 Making [Quacchio et al., 2012].

The main content of the paper

This paper focuses on HTML5 The design and making of network propaganda animation, to design a good effect With the map HTML5 , CSS3 , JavaScript , JQuery According to the characteristics of technology, "operating system" products, written and produced animation attribute decomposition table. Then according to the written animation table fill numerical attribute decomposition of animation, interface is mainly used in the production. PhotoShop and Illustrator Design of mining HTML5 The animation produced by the principle, design and Implementation for network publicity needs of animation, the design of the production process as far as possible HTML5 The animation is associated with "OS" content in the expression

does not affect the main functions of the "operating system" under the premise of selecting processing tendency of visual effects, of course design has very strong subjectivity, the form of animation, do not ensure compliance with all people's aesthetic taste, can only make the choice according to the actual situation [Naseem and Majeed, 2013]. Good animation finally through the browser test, repeated test and modify the maximum compatible with all mainstream browsers. The ultimate aim is to enable users to obtain main information "operating system", quick to learn and use them to improve the learning efficiency and work efficiency.

Interface design and animation

Sometimes, to get the design draft, will try to do it. CSS3 In the animation, for product approval, and then back to the interface design draft, just want to find their own animation designers did not separated in the interface design; made out of the final effect products and find it out of line with the theme and style of the page; you want to modify the page rendering, but the expiration of spare time, obviously this is the product, early, insufficient communication problems. So, do the preliminary communication, the first step is to complete the animation, but also the most important step.

The content is to confirm the animation:

One How to move, animation

Two What are the elements of animation

Three How does not support the animation of the browser

About making ideas as follows:

(product design): according to the characteristics of the products, decided to show the way of animation, animation process; non high-end browser page display mode.

Reconstruction: according to the product (Design) of the request, can realize the evaluation of animation, and confirm what animation elements.

Design: animation elements reconstruction needs, do a good job in the design of separation release.

Operating system page introduction experience

Do not for the animation and animation and animation, animation should be based on the characteristics of the product to consider. this To map carousel Features introduced is the "ultimate experience", "speed" is the main expression of the elements. Consider the lightning lightning drop from the clouds split off to a certain position to stop the decline, strong power due to lightning speed, will appear at the bottom of the aperture, the small icon was open and text fly from left to right at the same time, and then tend to be static, finally stay lightning for a certain period of time, let the user in the visual focus function point is introduced, finally the lightning, text, icons, aperture disappear at the same time, with the power to blow the small icon off speed quickly the power of the.

The whole process lasted for animation Five Second, the low-end browser to static picture display.

Visual

It is best not to vertical down, can be considered from a certain inclination angle split, more strength; small icon blasted through the zoom icon reach small icon was severed,

lightning, small icon, aperture, transparency is more gentle text control can actually consider the background of the digital moving more the download process dynamic animation: Animation elements need: lightning, fly out of the text, icons, small aperture, digital background, occlusion mask layer.



Figure 1. Operating system page introduction experience

Operating system experience This page should reflect The characteristics of this system: no paper to replace the traditional mode of operation, post operation, easily create online classes, a key layout and check all the homework, have to communicate with students themselves, Intelligent generation of student work report, test report and teaching effect of white paper, knowledge at a glance. Can be compared in different classes, generate reports, help to improve teaching. To increase students' learning The enthusiasm of the students, communication between each other, a full range to improve the comprehensive quality of the teachers and students information level . The realization of the traditional digital content bearing, passing through the form of bits, for learning, education and training, More personalized, rather than speak generally.

```
<section class="view v-0 viewCurr">
  <div class="loadBox">
    <span class="circle"></span>
    <span class="circle"></span>
  </div>
  <div class="contain">
    <div class="pc"><a href="javascript:;"></a></div>
    <h2 class="t">作业系统</h2>
    <p class="info">开创课堂点名, 签到, 交作业, 查看作业新方式, 提高课堂效率。</p>
    <a href="http://zuoyexitong.com/" class="btn"></a>
  </div>
</section>
CSS Part:
```

```
.v-0 .pc {
  transition:left 1s ease,opacity 1s linear;
  -webkit-transition:left 1s ease,opacity 1s linear;
}
.v-0 .t {
  transition:top 1s ease-out 1s,opacity 1s linear 1s;
```

```

    -webkit-transition:top 1s ease-out 1s,opacity 1s
    linear 1s;
  }
  .v-0 .info {
    transition:left 1s ease-out 1s,opacity 1s linear 1s;
    -webkit-transition:left 1s ease-out 1s,opacity 1s
    linear 1s;
  }
  .v-0-curr .pc { left:-460px; opacity:1;}
  .v-0-curr .t { top:-210px; opacity:1;}
  .v-0-curr .info { left:0px; opacity:1; font-size:24px;}
  .v-0 .btn{ background:url(..images/bg_7.png) no-
  repeat;}
  
```

Feature introduction page

The integration of multiple functions of the operating system, there are online, online attendance attendance, job submission, job preview and other functions.

This page uses a high purity of different color, the overall harmonious collocation.

```

<section class="view v-1">
  <div class="contain"><h1
  class="t">实用的特色功能</h1>
  <span class="app app-1"><a
  href="javascript:void(0)">在线点名</a></span>
  <span class="app app-2"><a
  href="javascript:void(0)">在线签到</a></span>
  <span class="app app-3"><a
  href="javascript:void(0)">作业提交</a></span>
  <span class="app app-4"><a
  href="javascript:void(0)">作业预览</a></span> <p
  class="intro">几百人的点名轻松搞定，学生提交作业无
  需跑腿，作业系统，师生的福音。</p> </div>
  <div class="btm-shadow"></div>
  
```

Table 1. Operating system page introduction experience

element	change	Effect	time	delayed	Easefunction	displacement
Background map	nothing ->Yes	Fade out	0.5s	0	ease	0
The left graph	nothing ->Yes	From the left out	1s	0.5s	ease-in	150px
Title	nothing ->Yes	From getting out	1s	0.5s	ease	80px
Copy	nothing ->Yes	Getting out from the right	1s	0.5s	ease	350px

Html5 Part:

Table 2. The online named page animation attribute decomposition table

element	change	Effect	time	delayed	Easefunction	displacement
Background map	nothing To Yes	Fade out	0.5s	0	ease	0
Graphical 1	nothing To Yes	From getting out	1s	0.5s	ease-in	270px
Graphical 2	nothing To Yes	From getting out	1s	0.5s	ease-in	270px
Graphical 3	nothing To Yes	From getting out	1s	0.5s	ease-in	270px

Html5 Part:

Compared with previous single class system function, and can realize the common teaching operation in a system that does not need to switch back and forth between multiple systems, provides the convenience for teachers and students.

```

<div class="btm"></div>
</section>
  
```

CSS Part:

```

.v-1 .app-1 {top:536px; left:510px; width:145px;
height:175px;}
.v-1 .app-2 {top:568px; left:414px; width:145px;
height:175px;}
.v-1 .app-3 {top:585px; left:-496px; width:145px;
height:175px; z-index:10}
.v-1 .app-4 {top:536px; left:-580px; width:145px;
height:175px; z-index:9}
.v-1 .app a {display:block; position:relative; text-indent:-
9999px;}
  
```

Online named introduction page

In the office automation system gradually popular today, the online attendance system came into being. This way not only save money, easy, convenient, easy to use, the teacher no longer need to take the register, save time, improve efficiency. At the same time also make students have a better communication platform, students can also through the function to query their own attendance this semester. Using this function, Can teachers in Colleges and Universities Complete the student attendance tasks in a very short period of



Figure 2. Feature introduction page

Figure 2 Highlight the characteristics of the system function. Online, online attendance attendance, job submission and job preview. The function uses the suspended card design alone, click to use the corresponding function; the card painted with the corresponding elements with text, to convey accurately the performance of visual design intention; the bottom painted with white clouds, makes the picture more full.

time and attendance information stored in the database, which effectively saves the data, to facilitate future on students' evaluation, and save Figure Three On the map Two Detailed online features named function. With the computer, the characters, the rocket as the main element, here is mainly used to online media computer teacher named, and below the figure named information shows that the main purpose of the function, and the Rockets are synonymous with fast and convenient online show named this feature by the Rockets in here. Right with the words to explain. With the background of green plants and coffee cup embellishment, makes the picture more plump.

CSS Part

```
@-webkit-keyframes rocketUp {
    0% {-webkit-transform: translateY(0);}
    50% {-webkit-transform: translateY(-20px);}
    100% {-webkit-transform: translateY(0);}
}
@keyframes rocketUp {
    0% {transform: translateY(0);}
    50% {transform: translateY(-20px);}
    100% {transform: translateY(0);}
}
```



Figure 3. Online named introduction page

Table 3. The online named page animation attribute decomposition table

element	change	Effect	time	delayed	Easefunction	displacement
Background map	nothing To Yes	Fade out	0.5s	0	ease	0
computer	nothing To Yes	From the left out	1s	0s	ease-in	150px
rocket	nothing To Yes	From getting out	1.5s	0.	ease	470px
Text	nothing To Yes	Getting out from the right	1s	0	ease	350px

Html5 Part:

Table 4. The online sign in page animation attribute decomposition table

element	change	Effect	time	delayed	Easefunction	displacement
Background map	nothing To Yes	Fade out	0.5s	0	ease	0
Mobile phone	nothing To Yes	Gradient	1s	0s	ease-in	0px
Mobile phone shadow	nothing To Yes	From getting out	1.5s	0	ease	12px
APP Icon	nothing To Yes	out from the right	1s	0	ease	60px
Text	nothing To Yes	Getting out from the right	1s	0	ease	350px

Html5 Part:

```
<section class="view v-2">
  <div class="contain">
    <div class="pc">
      <div class="pc-shadow">
        <p class="work-face"></p>
      </div>
      <p class="rocket"></p>
      <p class="info"></p>
    </div>
  </div>
</section>
```

Online sign in page

Online registration and online attendance correspondence, students complete the sign before the class log on to the system, the corresponding data will be transferred to the database, also sign into the corresponding results in the course of accounting. The traditional sign has two kinds, one is the teacher in the classroom named, according to a case to record student attendance; a student register in the registration form. These two methods are time-consuming, will also affect the pace of the teacher in the class.



Figure 5. Job submission page

Table 5. The job submission page animation attribute decomposition table

element	change	Effect	time	delayed	Easefunction	displacement
Background map	nothing To Yes	Fade out	0.5s	0	ease	0
The column chart	nothing To Yes	Fade out	1s	0s	ease-in	0
character	nothing To Yes	From getting out	1.5s	0.	ease	200px
Text	nothing To Yes	From getting out	1s	0	ease	350px

Html5 Part:

Using this function, the students in the class before the system login sign, not because of that sort in a waste of time, will not miss the signs of students information. The number of the class more, this sign was more obvious. As three hundred of the elective course, one by one named spent tens of minutes, use this function, in a few minutes the students can complete the online check-in using their mobile phone or other mobile terminal equipment. Will be a waste of time back to the teacher and the students, To engage in. The efficiency of the classroom, is worth using for various teachers and students in Colleges and universities. Figure 4 On the map Two Features of online sign function is introduced in detail. In the course of mobile phone icon as the main element, mobile phone is the main media for students online sign here, mobile phone icon represents the course of floating above some courses of the school, the teacher can through the system set the name of the course, students can check in to add on the basis of teacher curriculum. Right with the words to explain. Here some virtual icons with different degrees of perspective, makes the picture more stereo.

```

<section class="viewv-3">
  <div class="contain">
    <p class="fog"></p>
    <div class="phone">
      <p
class="appBox">
<span class="appapp-1"></span>
<span class="appapp-2"></span>
<span class="appapp-3"></span>
<span class="appapp-4"></span>

```

```

<span class="appapp-6"></span>
<span class="appapp-7"></span>
<span class="appapp-8"></span>
<span class="appapp-9"></span>
<span class="appapp-10"></span>
</p>
</div>
<p class="phone-shadow"></p>
<h2 class="t">方便的签到</h2> <p
class="info">无论是专业课，专选课还是公选课，只要打
开手机网络，登陆系统后即可完成签到，再也不用担心上
课没签到啦!</p>
</div>
</section>

```

CSS Part:

```

@-webkit-keyframes appUp {
  0% {-webkit-transform: translateY(0);}
  50% {-webkit-transform: translateY(-20%);}
  100% {-webkit-transform: translateY(0);}
}
@keyframes appUp {
  0% {transform: translateY(0);}
  50% {transform: translateY(-20%);}
  100% {transform: translateY(0);}
}

```

Job submission page

As the name suggests is a good job submission According to the operation Request uploaded to the server, no need to download directly online view,The login system, you can view not to do And to have Finish the homework, homework can

not click View job requirements, the teacher can also add attachments for slightly more complex operations. According to the requirements of the students finished the homework can be uploaded, finished uploading homework will be added to the student's personal information, consult the teacher correcting is very convenient. If the student to submit its own operations are not satisfied, can be modified locally after re upload, the default operating system to the last commit operation shall prevail. Applicable to the documents, pictures, animation. Chart Five On the map Two Submit the function in detail features of homework. In the histogram, characters as the main element, here is the histogram display data visualization design and average scores of individual students, the top of the line graph shows the students recently submitted job performance trends, can directly reflect the students' learning, action figures and look here are showing the joy of love show your operating system to submit convenient operation. Right with the words to explain. The background is clean and relaxed, lively picture.

```
section class="viewv-4">
```

```
<div class="contain">
  <p class="nodeLine"></p>
  <p class="column"><span
class="colCon"></span></p>
  <p class="bee"></p>
  <div class="info">
```

```
<h2>直观的成绩报表</h2><p>自动统计输出成绩
报表，直观明了，方便查看成绩趋势，明确自己的排名和
学习情况。</p></div>
```

```
</div>
```

```
</section>
```

CSS Part:

```
.v-4-curr .nodeLine { width:356px; opacity:1;}
.v-4-curr .bee {left:-388px; opacity:1;}
.v-4-curr .info {left:40px; opacity:1;}
.v-4-curr .column {
```

```
opacity:1;
```

```
-webkit-animation:colup 2s ease-in 2s infinite;
```

```
animation:colup 2 ease-in 2s infinite;
```

```
}
```

Test and analysis results

]

Visual interface test

This page is "network propaganda animation design and production operation system", the main content is rendered by the interface, so the higher requirement on the visual grasp, such as the page background, fit, page elements and theme color collocation, page composition, photo text has an impact on the overall effect of the publicity page. use Photoshop and Illustrator^[4] After repeated modification, finally unified the page style, using a flat design popular in detail, supplemented by the necessary decoration (translucent shadow, etc.), which makes the page vivid and ultimately better visual effect on display.

Animation test

In the animation to make the page more attractive, increased access to customers, more outstanding designers intent, will transfer to convey information to visitors, so the animation role is very important, here mainly test the following aspects:

- hether to achieve animation effects;
- Whether the effect of coherent and smooth animation;
- hether in the mainstream animation) browser compatibility.

Analysis of test results

The page test proves that the page has good visual effects, interactive animation closely connected, fast and smooth. The page style uniform but due to the need of the actual content and different points and highlights of their respective. At present in the page Fire Fox, Chrome, Safar Can show the same animation, but due to compatibility problems in the browser, the page IE (Seven, Eight, Nine Browser compatible) is not very good. This will continue to improve in the later.

Summary

Product promotion Of ten. Will introduce users to product features, convey the product concept, but also the user The first time to The new characteristics of new products or new sense of cognitive function, therefore, in the design of product leaflets, tend to pay special attention to the page of the refined, and the final design draft out, often just a static page. From the perspective of visual design, perhaps static page visual effect has been very good, but always lacks to the visual impact of the dynamic effect, I believe that many designers hope to increase the number of page animation elements, but also do not want to depend too much on animation.

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