11-1-2009

Chascript: A Chinese interactive typographic drawing application

Yiyi Lu

Follow this and additional works at: http://scholarworks.rit.edu/theses

Recommended Citation


This Thesis is brought to you for free and open access by the Thesis/Dissertation Collections at RIT Scholar Works. It has been accepted for inclusion in Theses by an authorized administrator of RIT Scholar Works. For more information, please contact ritscholarworks@rit.edu.
Rochester Institute of Technology

A thesis submitted to the faculty of the

College of Imaging Arts and Sciences

in candidacy for the degree of

Master of Fine Arts

Computer Graphics Design

ChaScript:

A Chinese Interactive Typographic Drawing Application

Yiyi Lu

November 1, 2009
Thesis Committee Approval:

Chief Adviser: Associate Professor Chris Jackson, Computer Graphics Design

Signature of Chief Adviser            Date

Associate Adviser: Associate Professor Thomas Policano, Arts and Imaging Studies

Signature of Associate Adviser      Date

Associate Adviser: Associate Professor Nancy Doubleday, Info Tech Grad Web & Multimedia

Signature of Associate Adviser      Date

School of Design Chairperson Approval:

Chairperson, School of Design: Patti Lachance

Signature of Chairperson           Date

Reproduction Granted:
I____________________, hereby grant permission to Rochester Institute of Technology to reproduce my thesis documentation in whole or part. Any reproduction will not be for commercial use or profit.

Signature of Author                              Date

Inclusion in the RIT Digital Media Library Electronic Thesis and Dissertation (ETD) Archive:
I____________________, additionally grant to Rochester Institute of Technology Digital Media Library the non-exclusive license to archive arid provide electronic access to my thesis in whole or in part in all forms of media in perpetuity. I understand that my work, in addition to its bibliographic record and abstract, will be available to the worldwide community of scholars and researchers through the RIT DML. I retain all other ownership rights to the copyright of the thesis. I also retain the right to use in future works (such as articles and books) all or part of this thesis. I am aware that Rochester Institute of Technology does not require registration of copyright for EETDs. I hereby certify that, if appropriate, I have obtained and attached written permission statements from owners of each third party copyrighted matter to be included in my thesis. I certify that the version I submit is the same as that approved by my committee.

Signature of Author                               Date
Abstract

Chinese characters have a complex beauty as well as individual meanings. People, like artists and designers, are often drawn to this. But it is not easy for non-Chinese people to use these characters to design. This work explores how interactive multimedia can be utilized as a tool for users in type drawing. Divided in to four main sections, this thesis will offer general information about Chinese characters, will explain what stroke and stroke order is, will offer a pictograph form, and will allow the user to try and play with Chinese characters interactively in order to get the art work they want.

Keywords: Chinese characters, Chinese symbol, stroke, stroke order, pictograph, type drawing, interactive and instructional multimedia

Table of Contents

THESIS PROJECT DOCUMENT

Introduction ............................................................................................................... - 1 -
Literature Review .................................................................................................. - 3 -
Process ................................................................................................................... - 6 -
   Similar Projects ............................................................................................... - 6 -
   Thesis parameters ............................................................................................. - 7 -
      Thesis Title ................................................................................................... - 7 -
      Content Structure .......................................................................................... - 7 -
      Color Scheme ................................................................................................. - 7 -
      Interface Design ............................................................................................. - 9 -
Main Navigation ..................................................................................................... - 10 -
Stroke Introduction ............................................................................................... - 11 -
Stroke Order .......................................................................................................... - 14 -
Pictograph ............................................................................................................. - 17 -
Interactive Screen ................................................................................................. - 19 -
      Introduction Screen ...................................................................................... - 20 -
      Examples Screen ............................................................................................ - 21 -
Used Code Samples (ActionScript 3.0) ................................................................ - 23 -
      Main Menu and Switch Screens .................................................................... - 23 -
      Message Box .................................................................................................. - 25 -
      Loop the Video ............................................................................................... - 25 -
      Keyboard Control ........................................................................................... - 26 -
      Mouse Actions and Mathematics ................................................................... - 27 -
      Print the Artwork ............................................................................................ - 29 -
Summary ................................................................................................................... - 29 -
   Evaluation Form ................................................................................................. - 30 -
Conclusion ............................................................................................................... - 47 -
Bibliography ............................................................................................................ - 49 -

APPENDIX - THESIS PROPOSAL
Thesis Project Document
Introduction

Using typographic elements to create art and images is very popular, but not all the fans of this artwork are familiar with Photoshop or Illustrator. Even with these two programs, artists can not draw freely and get a realistic feeling. Is there any application that can solve this problem?

Chinese language has 87,019 characters; it is a truly good source for type imagery. This thesis explores typography as an image maker. The thesis project is an application that not only deconstructs the Chinese characters and strokes but also for the type drawing with Chinese characters.

The whole project is divided into four main sections. The Stroke section will offer users general information about basic and compound strokes and types of strokes. The Stroke Order section will explain what the stroke order is and the correct order in which the strokes of a Chinese character are written. The Pictograph section will explain how Chinese characters become progressively to modern simplified form from the oracle bone script. The Play section will allow
the user to try and play with Chinese characters interactively in order to get the art work they want. Users can also get instruction and video examples in this section. When users complete their work, they can print it out or save it as a PDF file.

This application only uses a select set of Chinese characters to create images. The list of the characters would be carefully selected for use in multiple solutions.
Literature Review

Designing Web Usability

Jakob Nielsen

2000

This book provides a systematic approach to web design. It was written for designers and covers many rules, principles, guidelines, and methods of web design. They are all derived from real experiences and shows what actually works when real users try to perform real tasks on the Web. The book is based on observations of usability tests with about 400 users from a wide variety of backgrounds, using a large number of different websites from the last six years. The extensive amount of testing and results will help me develop a better user experience.

Don’t Make Me Think: A Common Sense Approach to Web Usability

Steve Krug

2000

This book provides information about practical techniques for developing a highly usable web site. It contains gentle humor, clear advice, and real-life illustrations. These examples will work well to help guide my design and the user experience I create.
Making and Breaking the Grid: Layout Design Workbook

Timothy Samara

2002

This book begins with an exposition of basic grid types, illustrating and defining the most common ones used in traditional design work. A selection of relevant projects shows how these grids organize information appropriate to each application and can provide a framework for composition. The second part of the book, Breaking the Grid, focuses on designs that challenge grid-based notions of organization. A brief discussion addressing the breaking down of structure is followed by a second set of relevant projects - this time, showing the grid reworked or discarded in favor of alternative compositional approaches. The book is a valuable reference, as well as a source of inspiration for new approaches to laying out my projects.

Chinese Font Design

Guosheng Lin

2006

http://shop.mall.taobao.com/product-710527.htm?ad_id=&am_id=&cm_id=&pm_id=
This book covers the basic rules of how Chinese characters are created and the development of the old style to the new simple version Chinese. The book begins with the brief history of Chinese characters. The second part focuses on the rules of fonts design, both on legibility and aesthetic feeling. A section of traditional Chinese fonts are followed as examples of how Chinese typography combines with images. At last, this book provides examples of modern Chinese fonts design and awarded works in the area of Chinese typography. This book gives me a good guide to choose the Chinese characters on my project list.
Process

Similar Projects

As printing and design technologies have evolved over the past decade, so too have designers’ approaches to type design and typography. Today’s innovative designers have overturned established rules about type, turning letters into images and using typefaces in increasingly experimental ways. One of the ways is to use English letters to create images. This interesting experiment has become popular so that a lot of software appears on the Internet. TYPE DRAWING, (http://www.storyabout.net/typedrawing/typedrawing.php?requestedID) is one of them.

But this kind of software uses only English characters, other characters from different areas around the world would bring the new styles of images from type. Chinese characters look much different from English ones. They would be a good source to create images.
Thesis parameters

Thesis Title

My thesis title (Picture 1) is ChaScript. Cha means both Chinese and character.

Cha = China + character

ChaScript = Chinese character script

Content Structure

The whole project is divided into four main sections. (Picture 2) Stroke (Picture 2) section is divided into two parts: Basic and compound strokes and Writing Chinese Strokes. Basic and compound strokes will offer the information of thirty distinct types of strokes. Writing Chinese Strokes will offer an example of The 8 principles of Yong.

Stroke Order (Picture 2) section has nine stroke order rules.
Pictograph (Picture 3) section summarizes the evolution of a few Chinese pictographic characters.

Play (Picture 3) section will allow the user to try and play with Chinese characters interactively in order to get the art work they want. Users can also get instructions and video examples in this section. When users complete their work, they can print it out or save it as PDF file.

![Picture 3]
**Color Scheme**

The colors (Picture 4) selection in my thesis project will reflect the traditional Chinese paper environment. Black is the color of ink and brown yellow is the color of paper for traditional Chinese painting. White is used for the space and separate lines for the user interface.

- Brown yellow
- Black
- White

![Picture 4](image)

**Interface Design**

The whole application will be black and white with traditional Chinese style. There will be a list of characters (Picture 5) you can choose to use. The stage in which the user's interact with the characters needs enough space. Buttons (Picture 6) are simple and clear. A different mouse action will generate a different sound effect.

![Picture 5](image)
Main Navigation

The main navigation menu (Picture 7) is very simple and easy to understand. The button text will become white and background will fade to black when the button is in selected state. All buttons will appear in their normal state in the other sections.

When users choose one section, the whole screen will switch to the selected section's interface. Just like readers move a large newspaper when focusing on different articles.
**Stroke Introduction**

This section provides users with the definition of Chinese character and stroke. The strokes are the basic units needed to write the Chinese characters.

There are some thirty distinct types of strokes recognized in Chinese characters, some of which are compound strokes (Picture 9) made from basic strokes (Picture 8).

![Picture 8]

- 蹴 diǎn "Dot" Tiny dash
- 橫 héng "Horizontal" Rightward stroke
- 坚 shù "Vertical" Downward stroke
- 拾 tì "Rise" Flick up and rightwards
- 按 nà "Press down" Falling rightwards (fattening at the bottom)
- 拌 piē "Throw away" Falling leftwards (with slight curve)
In order to be able to write Chinese characters one first has to know how to write Chinese strokes, and thus, needs to identify the basic strokes that make up a character. The 8 basic strokes, (8 stroke shapes in 5 basic and compound strokes), extract from Chinese character 永, "eternity", (Picture 10) is also shown in the section.
The same section lists the most usual common shapes of the basic strokes and the proper way (Picture 11) of writing each.
Stroke Order

This section provides users with the definition of stroke order and radical. Stroke order refers to the correct order in which the strokes of a Chinese character are written. Stroke is a movement of a writing instrument where the nib is touching the page.
There are movie clips as examples accompany the different writing rules (Picture 12 and Picture 13).

**Basic rules**

1. **Write from left to right, and from top to bottom**
   
   As a general rule, characters are written from left to right, and from top to bottom. For example, among the first characters usually learned is the number one, which is written with a single horizontal line: 一. This character has one stroke which is written from left to right.

2. **Horizontal before vertical**
   
   When strokes cross, horizontal strokes are usually written before vertical strokes: the character for "ten," 十, has two strokes. The horizontal stroke — is written first, followed by the vertical stroke 一.

3. **Cutting strokes last**
   
   Vertical strokes that "cut" through a character are written after the horizontal strokes they cut through, as in "car" 車 and "middle" 中.

4. **Diagonals right-to-left before diagonals left-to-right**
   
   Right-to-left diagonals (／) are written before left-to-right diagonals (＼): "article" 文. Note that this is for symmetric diagonals; for asymmetric diagonals, as in "dagger" 戈, the left-to-right may precede the right-to-left, based on other rules.
5. Centre verticals before outside "wings"
   Vertical centre strokes are written before vertical or diagonal outside strokes; left outside strokes are written before right outside strokes. "small"小 and "water"水.

6. Outside before inside
   Outside enclosing strokes are written before inside strokes; bottom strokes are written last.

7. Left vertical before enclosing
   Left vertical strokes are written before enclosing strokes. In the following two examples, the leftmost vertical stroke (丂) is written first, followed by the uppermost and rightmost lines (々) (which are written as one stroke): "sun"日 and "mouth"口.

8. Bottom enclosing strokes last
   Bottom enclosing strokes are always written last.

9. Dots and minor strokes last
   Minor strokes are usually written last, as the small "do" in the following: "jade"玉, "please"求, "skill"専.
Pictograph

This section provides users with the definition of pictography and Chinese character classification. Chinese characters are pictograms—stylized drawings of the objects they represent. These are generally among the oldest characters. These pictograms became progressively more stylized and lost their pictographic flavor. Pictograph characters (Picture 14 and Picture 15) have meaning with their shapes, that will be more interesting when using them to draw.
<table>
<thead>
<tr>
<th></th>
<th>Oracle Bone Script</th>
<th>Seal Script</th>
<th>Clerical Script</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun</td>
<td>☽</td>
<td>☼</td>
<td>日</td>
</tr>
<tr>
<td>Moon</td>
<td>☼</td>
<td>☽</td>
<td>月</td>
</tr>
<tr>
<td>Mountain</td>
<td>☡</td>
<td>☽</td>
<td>山</td>
</tr>
<tr>
<td>Water</td>
<td>☾</td>
<td>☽</td>
<td>水</td>
</tr>
<tr>
<td>Rain</td>
<td>☿</td>
<td>☽</td>
<td>雨</td>
</tr>
<tr>
<td>Wood</td>
<td>☽</td>
<td>☽</td>
<td>木</td>
</tr>
<tr>
<td>Rice Plant</td>
<td>☽</td>
<td>☽</td>
<td>米</td>
</tr>
<tr>
<td>Man</td>
<td>☽</td>
<td>☽</td>
<td>人</td>
</tr>
</tbody>
</table>
For this section, I have chosen a list of suitable Chinese characters (Picture 16) for drawing from the traditional Chinese script and Chinese painting books (Picture 17).
The users can use characters to draw whatever they want.

**Introduction Screen**

This screen (Picture 18) offers the users the instructions for the mouse actions when drawing.
They can use the mouse to draw with gestures. Hold left-click and move the mouse around to drag the character they want to the stage, roll up the mouse wheel to enlarge the character and roll down to reduce the size. Double click the character to duplicate it. Dragging the character off the stage will delete the character. Using the mouse to drag the corner of the character also can rotate it.

**Examples Screen**

It is important for users to get a direct idea about how to use this application. Showing them the screen record video is the best way.
This section provides four interesting videos (Picture 19). They are Cute Face (Picture 20), Ugly Face (Picture 21), Flower (Picture 22 and Picture 23) and Scorpion (Picture 24).

<table>
<thead>
<tr>
<th>Video</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cute Face</td>
<td>00:30</td>
</tr>
<tr>
<td>Ugly Face</td>
<td>01:42</td>
</tr>
<tr>
<td>Flower</td>
<td>01:13</td>
</tr>
<tr>
<td>Scorpion</td>
<td>01:05</td>
</tr>
</tbody>
</table>

Picture 19

Picture 20

Picture 21

Picture 22
Used Code Samples (ActionScript 3.0)

Main Menu and Switch Screens

Users can switch the four main screens like moving a large paper. The screens are designed and grouped in one scene as the background. All assets are set on the background.
This code will switch the main screens by setting the background on different positions.
Message Box

In Stroke Order section, when users roll over the cursor on the character order animation, one small message box will pop up to show what this Chinese character represent in English (Picture 25).

Picture 25

```javascript
addChild(messageBox);
messageBox.alpha = 0;
function inShui (e: MouseEvent) : void
{
    messageBox.alpha = 1;
    messageBox.x = mouseX;
    messageBox.y = mouseY;
    messageBox.popUp_txt.text = "water";
}
```

This code will pop up the message box depending on the cursor position when the cursor is rolling over the character animations.

Loop the Video

The video examples will loop, so that the users can see the video as many times as they want. Until they understand how to play with this application, they can stop the video and start to play.
This code will loop the video examples and instruction video.

Keyboard Control

The users can control the characters not only by mouse but also by keyboard.
This code will control the target items by arrow keys.

### Mouse Actions and Mathematics

The most difficult part in the thesis is the mathematics for mouse action when drag the target items they can rotate at the same time.
The basic idea is to use Sin and Cos angles (Picture 26).

```
84  public function drag(event:Event):void
85  {
86      var dx:Number = parent.mouseX - globalPoint.x;
87      var dy:Number = parent.mouseY - globalPoint.y;
88      var angle:Number = Math.atan2(dy, dx);
89      this.rotation = angle * 180 / Math.PI;
90  }
91
92  var x:Number = this.x;
93  var y:Number = this.y;
94  globalPoint.x = parent.mouseX - x;
95  globalPoint.y = parent.mouseY - y;
96  /*trace("x":x+" y":y);*/
97  trace("this.mouseX":this.mouseX);
98  trace("parent.mouseX":parent.mouseX);
99  trace("globalPoint.x":globalPoint.x);
100  trace("globalPoint.y":globalPoint.y); /*
101      this.globalPointToLocal(globalPoint);
102      this.x = globalPoint.x;
103      this.y = globalPoint.y;
104      /*trace("localPointX":globalPoint.x);*/
105      trace("localPointY":globalPoint.y); */
106      // var MoveToEen = new Tween(e.target.this, "y", Regular.easeInOut, e.target.this.
107  }
108
109  public function trackVelocity(evt:Event):void
110  {
111      vx = globalPoint.x - oldX;
112      vy = globalPoint.y - oldY;
113      oldX = globalPoint.x;
114      oldY = globalPoint.y;
115  }
```

This code will control the target items rotation depending on the cursor position in the stage.
Print the Artwork

When users complete a satisfied artwork, they can save their work as PDF file or print it out.

```javascript
function printOut(e: MouseEvent): void {
    var myPrintJob: PrintJob = new PrintJob();
    var mySprite: Sprite = new Sprite();
    myPrintJob.start();
    myPrintJob.addPage(this, new Rectangle(46, 142, 916, 494));
    myPrintJob.send();
}
```

This code will show the print dialog window when the user click the Print button.

Summary

My target audience is broad and will range from 18 to 55 years in age. It will include designers, artists and whoever likes to play with fonts. They will have minimal to average artistic knowledge, and will be technically adept enough to surf the Internet. They don't need any experience for my project.
Evaluation Form

I created this evaluation form to get feedback from different types of people. My aim was to try and fix what I missed in my project. These are a few samples from the evaluation forms I got.
ChaScript Users' Feedback Form

Your Name ___________________________ Email ___________________________
Age ___________ Male/Female

Page Design
- Excellent  c  Good  c  Average  c  Poor

Graphic Design
- Excellent  c  Good  c  Average  c  Poor

Navigation
- Excellent  c  Good  c  Average  c  Poor

Content
- Excellent  c  Good  c  Average  c  Poor

Usability
- Excellent  c  Good  c  Average  c  Poor

Speed
- Excellent  c  Good  c  Average  c  Poor

Originality
- Excellent  c  Good  c  Average  c  Poor

Overall Grade
- Excellent  c  Good  c  Average  c  Poor

Please give me some comments.

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
ChaScript Users’ Feedback Form

Your Name_________________________ Email_________________________
Age______ Male/Female

Page Design
- Excellent □ Good □ Average □ Poor □

Graphic Design
- Excellent □ Good □ Average □ Poor □

Navigation
- Excellent □ Good □ Average □ Poor □

Content
- Excellent □ Good □ Average □ Poor □

Usability
- Excellent □ Good □ Average □ Poor □

Speed
- Excellent □ Good □ Average □ Poor □

Originality
- Excellent □ Good □ Average □ Poor □

Overall Grade
- Excellent □ Good □ Average □ Poor □

Please give me some comments.

________________________
________________________
________________________
________________________
ChaScript Users’ Feedback Form

Your Name: ____________________________ Email: ____________________________

Age ___ Gender: Male/Female

Page Design
- Excellent ☐ Good ☐ Average ☐ Poor ☐

Graphic Design
- Excellent ☒ Good ☐ Average ☐ Poor ☐

Navigation
- Excellent ☒ Good ☐ Average ☐ Poor ☐

Content
- Excellent ☐ Good ☐ Average ☐ Poor ☒

Usability
- Excellent ☒ Good ☐ Average ☐ Poor ☐

Speed
- Excellent ☒ Good ☐ Average ☐ Poor ☐

Originality
- Excellent ☒ Good ☐ Average ☐ Poor ☐

Overall Grade
- Excellent ☒ Good ☐ Average ☐ Poor ☐

Please give me some comments:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
ChaScript Users’ Feedback Form

Your Name: [Redacted]  
Email: [Redacted]

Age: 26  
Male/Female: Male

Page Design
- Excellent □  
- Good □  
- Average □  
- Poor □

Graphic Design
- Excellent □  
- Good □  
- Average □  
- Poor □

Navigation
- Excellent □  
- Good □  
- Average □  
- Poor □

Content
- Excellent □  
- Good □  
- Average □  
- Poor □

Usability
- Excellent □  
- Good □  
- Average □  
- Poor □

Speed
- Excellent □  
- Good □  
- Average □  
- Poor □

Originality
- Excellent □  
- Good □  
- Average □  
- Poor □

Overall Grade
- Excellent □  
- Good □  
- Average □  
- Poor □

Please give me some comments.

______________________________________________________________________________________________________

______________________________________________________________________________________________________

______________________________________________________________________________________________________

- 34 -
ChaScript Users' Feedback Form

Your Name: [Name]
Email: [Email]

Age: [Age] Male/Female

Page Design
- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor

Graphic Design
- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor

Navigation
- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor

Content
- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor

Usability
- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor

Speed
- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor

Originality
- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor

Overall Grade
- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor

Please give me some comments.

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
ChaScript Users' Feedback Form

Your Name: [ ] Email: [ ]

Age: [ ] Male [ ] Female

Page Design

- Excellent [ ] Good [ ] Average [ ] Poor

Graphic Design

- Excellent [ ] Good [ ] Average [ ] Poor

Navigation

- Excellent [ ] Good [ ] Average [ ] Poor

Content

- Excellent [ ] Good [ ] Average [ ] Poor

Usability

- Excellent [ ] Good [ ] Average [ ] Poor

Speed

- Excellent [ ] Good [ ] Average [ ] Poor

Originality

- Excellent [ ] Good [ ] Average [ ] Poor

Overall Grade

- Excellent [ ] Good [ ] Average [ ] Poor

Please give me some comments.

A bit difficult to control placement of characters, alpha channel issue after 15 min.

__________________________________________
ChaScript Users’ Feedback Form

Your Name: [Name]
Email: [Email]

Age: [28]
Male/Female

Page Design
☑ Excellent  ᵏ Good  ᵏ Average  ᵏ Poor

Graphic Design
☑ Excellent  ᵏ Good  ᵏ Average  ᵏ Poor

Navigation
☑ Excellent  ᵏ Good  ᵏ Average  ᵏ Poor

Content
☑ Excellent  ᵏ Good  ᵏ Average  ᵏ Poor

Usability
☑ Excellent  ᵏ Good  ᵏ Average  ᵏ Poor

Speed
☑ Excellent  ᵏ Good  ᵏ Average  ᵏ Poor

Originality
☑ Excellent  ᵏ Good  ᵏ Average  ᵏ Poor

Overall Grade
☑ Excellent  ᵏ Good  ᵏ Average  ᵏ Poor

Please give me some comments.
________________________________________
________________________________________
________________________________________
________________________________________
Your Name __________________________ Email danis79@chueskrr.com
Age 23 _______ Male/Female _______

Page Design
☐ Excellent ☐ Good ☐ Average ☐ Poor

Graphic Design
☐ Excellent ☐ Good ☐ Average ☐ Poor

Navigation
☐ Excellent ☐ Good ☐ Average ☐ Poor

Content
☐ Excellent ☐ Good ☐ Average ☐ Poor

Usability
☐ Excellent ☐ Good ☐ Average ☐ Poor

Speed
☐ Excellent ☐ Good ☐ Average ☐ Poor

Originality
☐ Excellent ☐ Good ☐ Average ☐ Poor

Overall Grade
☐ Excellent ☐ Good ☐ Average ☐ Poor

Please give me some comments.

I like this program. It is fun trying to create new images out of the letters.
ChaScript Users’ Feedback Form

Your Name __________________________ Email __________________________
Age _______ Male/Female

Page Design
- Excellent ✓ Good          Average          Poor

Graphic Design
- Excellent ✓ Good          Average          Poor

Navigation
- Excellent ✓ Good          Average          Poor

Content
- Excellent ✓ Good          Average          Poor

Usability
- Excellent ✓ Good          Average          Poor

Speed
- Excellent ✓ Good          Average          Poor

Originality
- Excellent ✓ Good          Average          Poor

Overall Grade
- Excellent ✓ Good          Average          Poor

Please give me some comments.

__________________________
Should be more formatting

__________________________
More descriptive navigation

__________________________
Give some instructions to navigate users
ChaScript Users’ Feedback Form

Your Name: __________________________ Email: mike@yoursite.com

Age: 29 Male Female

Page Design
- Excellent ☑ Good □ Average □ Poor □

Graphic Design
- Excellent □ Good □ Average □ Poor □

Navigation
- Excellent ☑ Good □ Average □ Poor □

Content
- Excellent ☑ Good □ Average □ Poor □

Usability
- Excellent □ Good □ Average □ Poor □

Speed
- Excellent □ Good □ Average □ Poor □

Originality
- Excellent □ Good □ Average □ Poor □

Overall Grade
- Excellent ☑ Good □ Average □ Poor □

Please give me some comments.

examples are bit slow, but!! It was awesome.
ChaScript Users’ Feedback Form

Your Name: [Redacted]  Email: [Redacted]
Age: 50  Male/Female

Page Design
✓ Excellent  ○ Good  ○ Average  ○ Poor

Graphic Design
○ Excellent  ○ Good  ○ Average  ○ Poor

Navigation
✓ Excellent  ○ Good  ○ Average  ○ Poor

Content
✓ Excellent  ○ Good  ○ Average  ○ Poor

Usability
✓ Excellent  ○ Good  ○ Average  ○ Poor

Speed
✓ Excellent  ○ Good  ○ Average  ○ Poor

Originality
✓ Excellent  ○ Good  ○ Average  ○ Poor

Overall Grade
✓ Excellent  ○ Good  ○ Average  ○ Poor

Please give me some comments.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
ChasScript Users’ Feedback Form

Your Name __________________________ Email __________________________

Age _______ Male/Female

Page Design

☐ Excellent  ☐ Good  ☐ Average  ☐ Poor

Graphic Design

☐ Excellent  ☐ Good  ☐ Average  ☐ Poor

Navigation

☐ Excellent  ☐ Good  ☐ Average  ☐ Poor

Content

☐ Excellent  ☐ Good  ☐ Average  ☐ Poor

Usability

☐ Excellent  ☐ Good  ☐ Average  ☐ Poor

Spead

☐ Excellent  ☐ Good  ☐ Average  ☐ Poor

Originality

☐ Excellent  ☐ Good  ☐ Average  ☐ Poor

Overall Grade

☐ Excellent  ☐ Good  ☐ Average  ☐ Poor

Please give me some comments.

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________
ChaScript Users' Feedback Form

Your Name: 
Email: name@no.com

Age: 27  Male/Female: Female

Page Design
- Excellent  Good  Average  Poor

Graphic Design
- Excellent  Good  Average  Poor

Navigation
- Excellent  Good  Average  Poor

Content
- Excellent  Good  Average  Poor

Usability
- Excellent  Good  Average  Poor

Speed
- Excellent  Good  Average  Poor

Originality
- Excellent  Good  Average  Poor

Overall Grade
- Excellent  Good  Average  Poor

Please give me some comments.

It's awesome :D !! Good job.

I wish there were explanations of the Chinese characters though.
ChaScript Users' Feedback Form

Your Name: [Name]
Email: [Email]
Age: [Age] Male/Female

Page Design

- Excellent
- Good
- Average
- Poor

Graphic Design

- Excellent
- Good
- Average
- Poor

Navigation

- Excellent
- Good
- Average
- Poor

Content

- Excellent
- Good
- Average
- Poor

Usability

- Excellent
- Good
- Average
- Poor

Speed

- Excellent
- Good
- Average
- Poor

Originality

- Excellent
- Good
- Average
- Poor

Overall Grade

- Excellent
- Good
- Average
- Poor

Please give me some comments.

[Comments]

[Comments]

[Comments]
ChaScript Users' Feedback Form

Your Name: __________________________ Email: xe457@r4.ade

Age: 25 Male/Female

Page Design
- Excellent □ Good □ Average □ Poor □

Graphic Design
- Excellent □ Good □ Average □ Poor □

Navigation
- Excellent □ Good □ Average □ Poor □

Content
- Excellent □ Good □ Average □ Poor □

Usability
- Excellent □ Good □ Average □ Poor □

Speed
- Excellent □ Good □ Average □ Poor □

Originality
- Excellent □ Good □ Average □ Poor □

Overall Grade
- Excellent □ Good □ Average □ Poor □

Please give me some comments:

"I can't figure out what to do with these figures"
I have tested my project on people from different majors and ages in order to get different suggestions and comments. Most of the people liked this project and felt comfortable with the user navigation and
graphical user interface. People over 30 years old and some females had difficulty in dragging the characters on the stage. If I had the time, I will design the new instructions video to show how to mouse control the characters. I will create the full screen option for that video to make sure users can get the detailed information from it and add pop up hints to the video if they are necessary in that scene.

**Conclusion**

I have developed a new method of using Flash interactivity with type drawing. The existence of this project will allow users to pursue these techniques for other types of language such as Japanese and Korean. My work has focused on playing and creating art work with characters interactively. The main reason for this project is to allow the user to experience a type drawing project and to learn more about Chinese.

I have shown that this method is capable of reflecting a realistic design process, including Cropping, Rotation, Resizing, and Duplication. However, my project suffers from a problem of speed; using PNG images to create my character pieces made some parts in
my scene plays really slow on any computer lower than 2.00 GHz. It does, however, provide the user with the desired speed by
decreasing graphics quality from high to medium.
Bibliography

Books
Rosenzweig, Gary. ActionScript 3.0 game programming university. Indianapolis, Ind.: Que Pub., 2008

Websites
Wikipedia <http://en.wikipedia.org>

Software
Adobe Flash CS3
Adobe Photoshop CS3
Adobe Illustrator CS3
ViewletCam
Appendix-Thesis Proposal