

心理與神經資訊學

(Psychoinformatics & Neuroinformatics)

課號: Psy5261

教室: 綜合302

識別碼: 227U9340

時間: 五234





網頁實驗總論

認真研究超英趕美

相關不能推論因果



實驗找出行為開關

心理學案例研究：朋友的影響力(1/3)

Informational message

Today is Election Day

What's this? • close



Find your polling place on the U.S. Politics Page and click the "I Voted" button to tell your friends you voted.

I Voted

0 1 1 5 5 3 7 6

People on Facebook Voted

Social message

Today is Election Day

What's this? • close



Find your polling place on the U.S. Politics Page and click the "I Voted" button to tell your friends you voted.

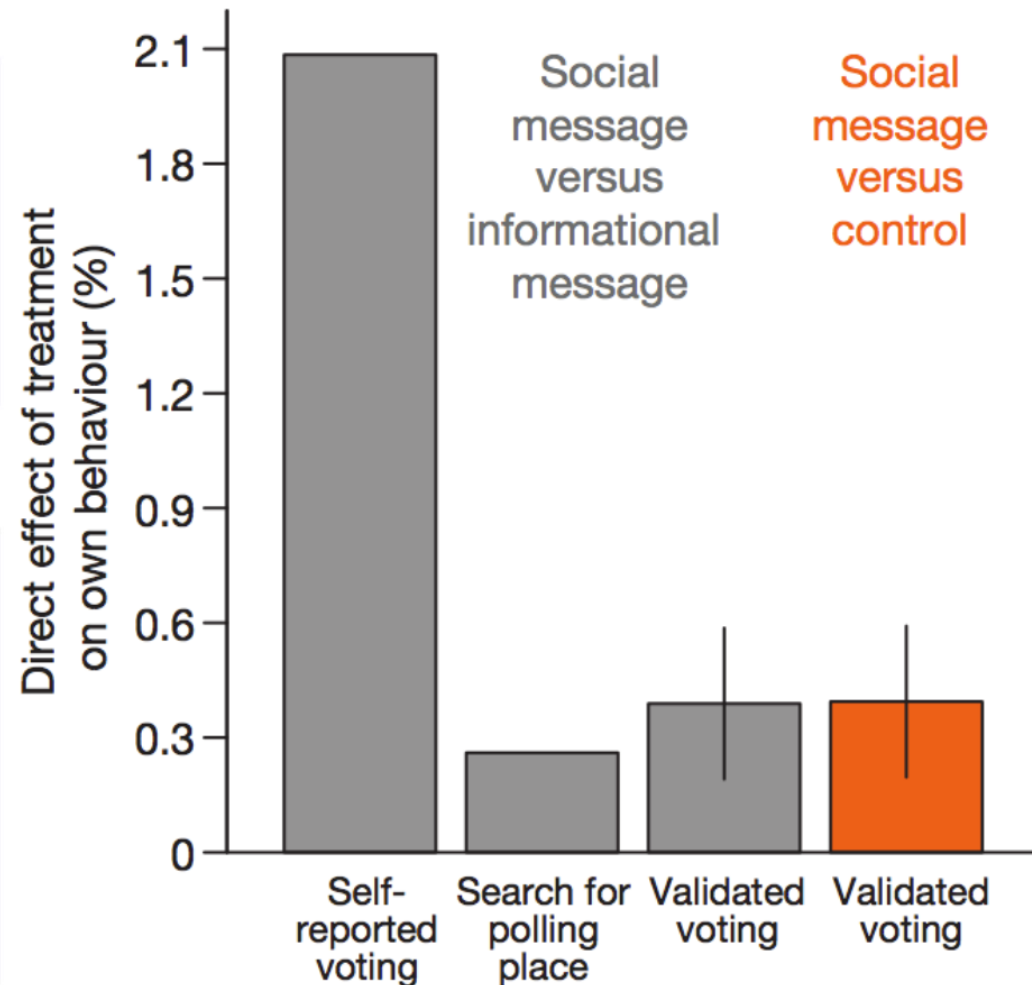
I Voted

0 1 1 5 5 3 7 6

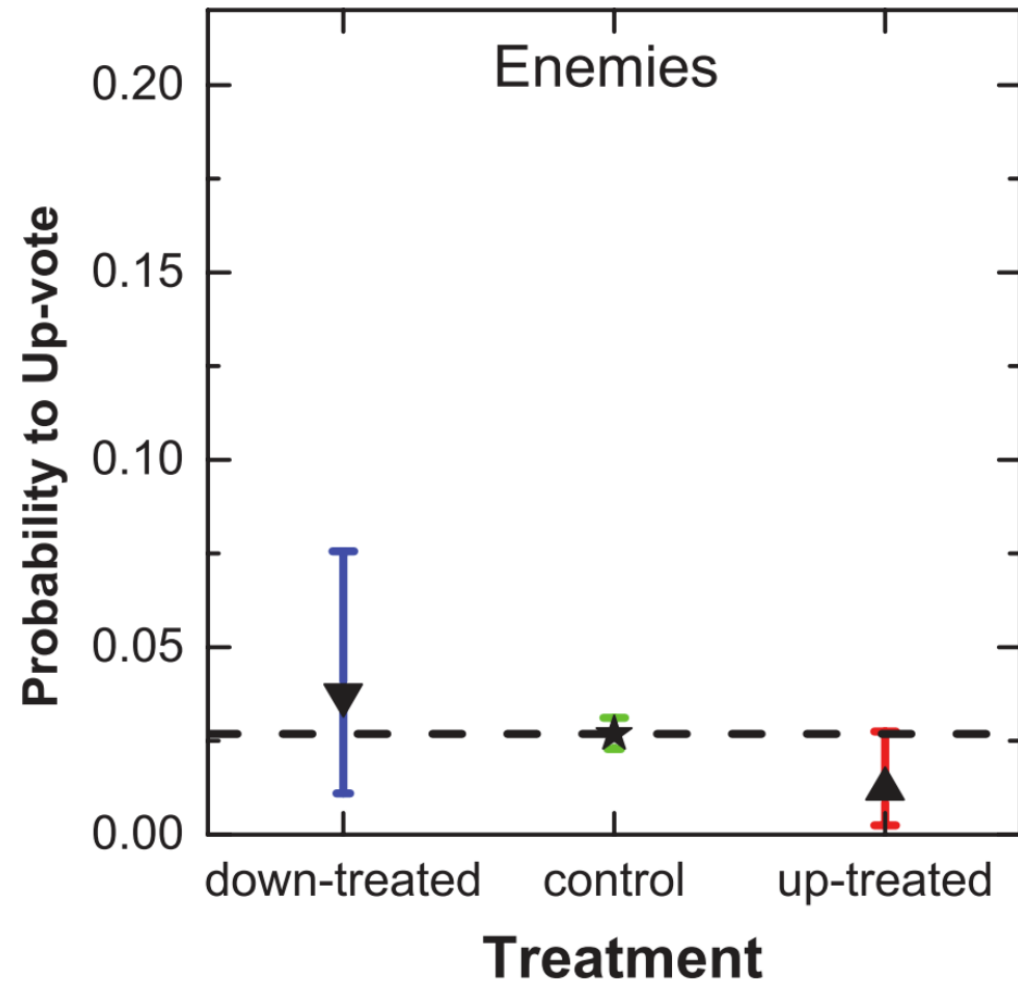
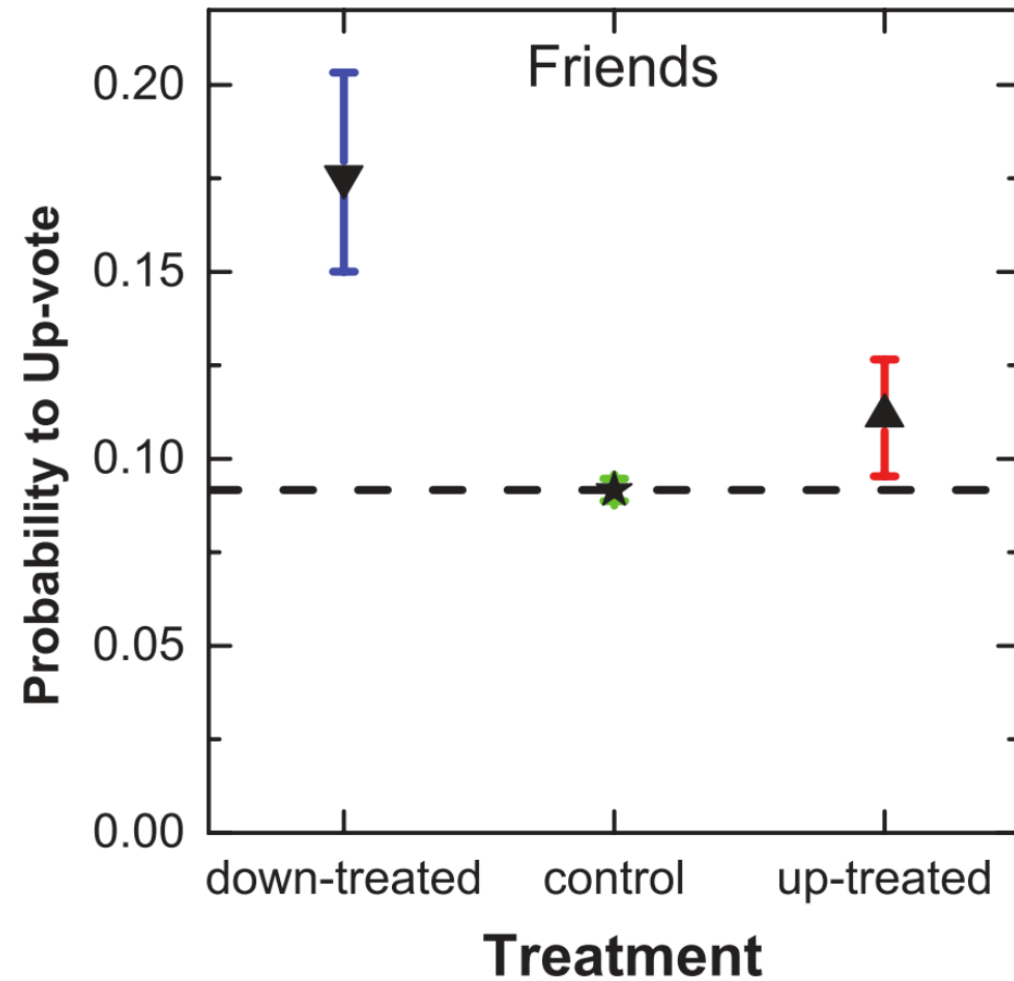
People on Facebook Voted



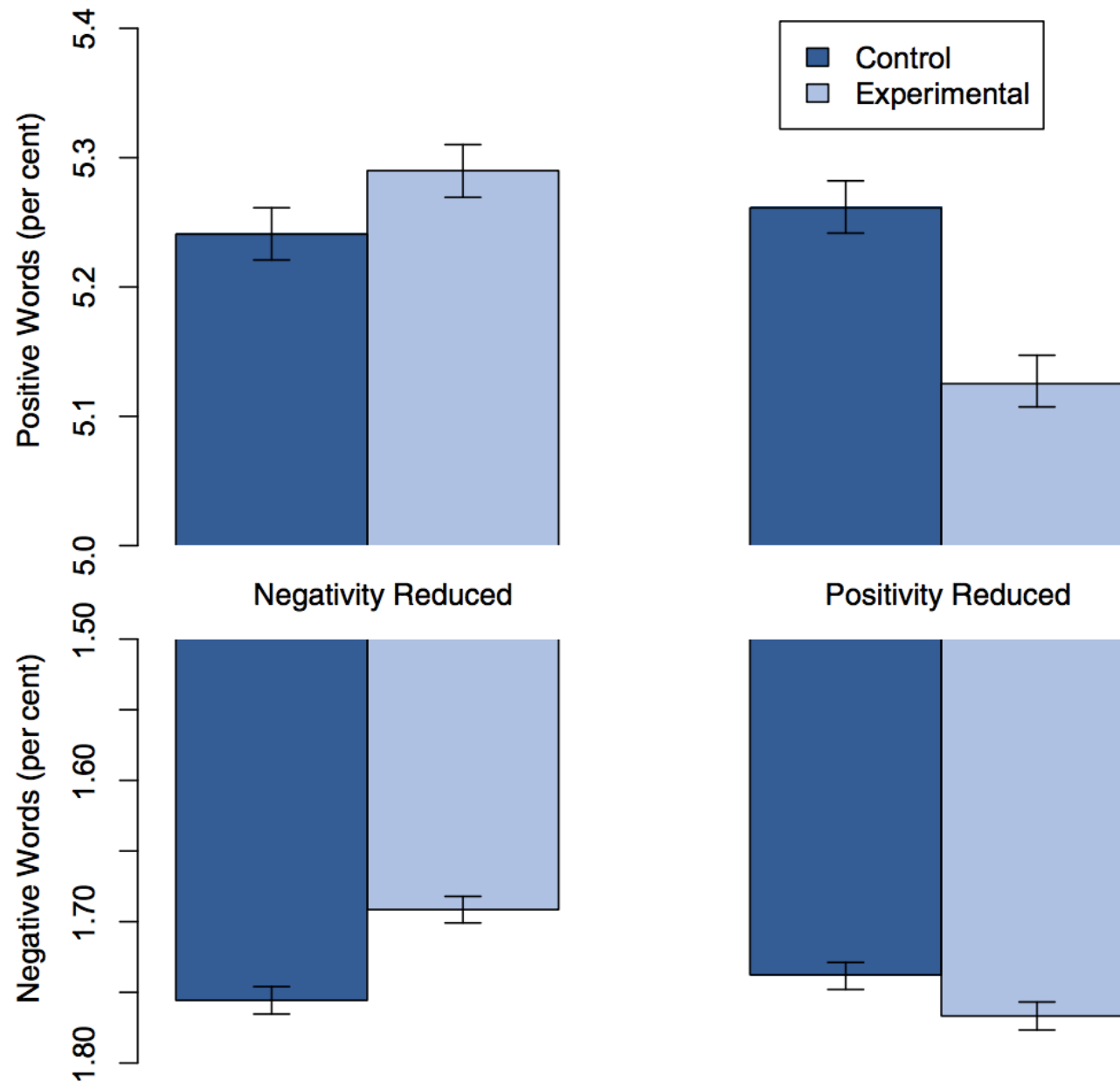
f Jaime Settle, Jason Jones, and 18 other friends have voted.



心理學案例研究：朋友的影響力(2/3)



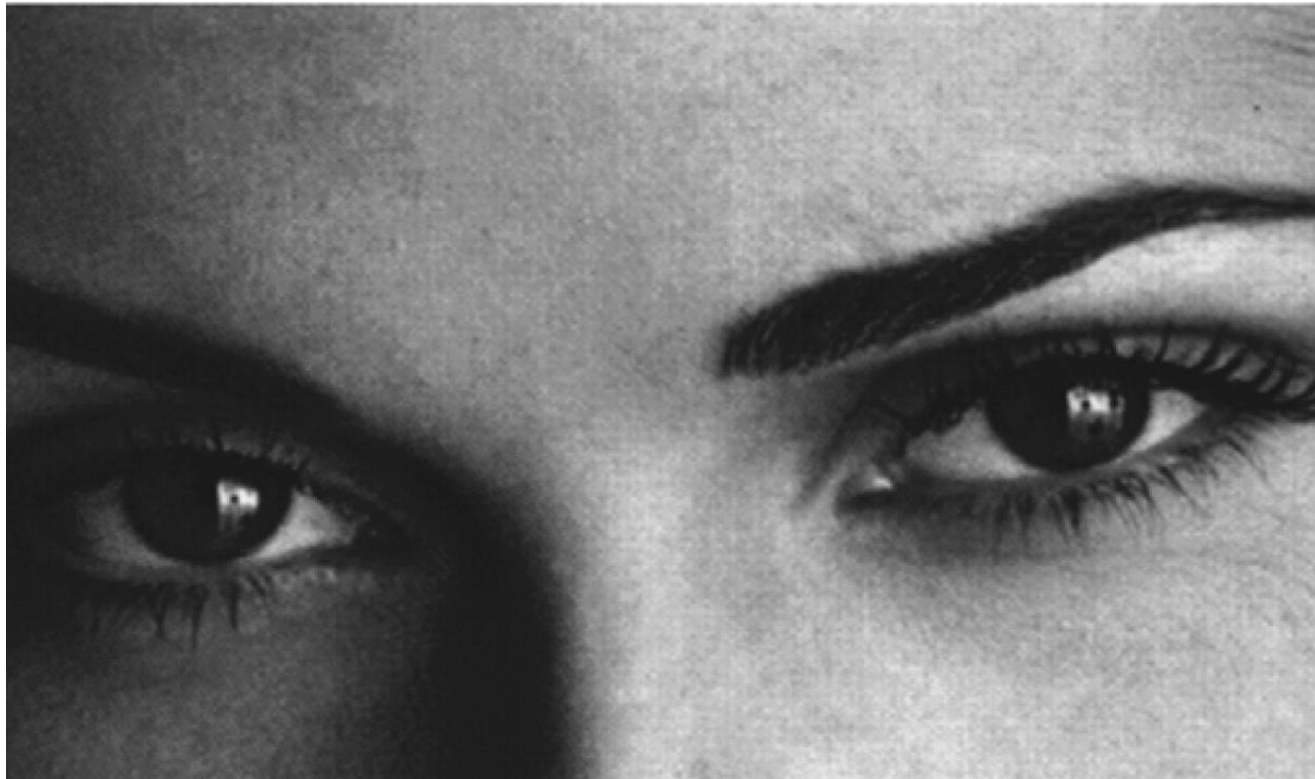
心理學案例研究：朋友的影響力(3/3)



心理學案例研究：讀小說增進察言觀色

快樂？

難過？



驚訝？

確信？

其他網頁實驗範例

[Big Five Personality Test](#)

[Reading the Mind in the Eyes Test](#)

[Implicit Association Test](#)

...



網路研究可靠嗎？

Six Preconceptions About Internet Methods

Preconception	Finding
1. Internet samples are not demographically diverse (e.g., Krantz & Dalal, 2000).	<i>Mixed.</i> Internet samples are <i>more</i> diverse than traditional samples in many domains (e.g., gender), though they are not completely representative of the population.
2. Internet samples are maladjusted, socially isolated, or depressed (e.g., Kraut et al., 1998).	<i>Myth.</i> Internet users do not differ from nonusers on markers of adjustment and depression.
3. Internet data do not generalize across presentation formats (e.g., Azar, 2000).	<i>Myth.</i> Internet findings replicated across two presentation formats of the Big Five Inventory.
4. Internet participants are unmotivated (e.g., Buchanan, 2000).	<i>Myth.</i> Internet methods provide means for motivating participants (e.g., feedback).
5. Internet data are compromised by anonymity of participants (e.g., Skitka & Sargis, in press).	<i>Fact.</i> However, Internet researchers can take steps to eliminate repeat responders.
6. Internet-based findings differ from those obtained with other methods (e.g., Krantz & Dalal, 2000).	<i>Myth?</i> Evidence so far suggests that Internet-based findings are consistent with findings based on traditional methods (e.g., on self-esteem, personality), but more data are needed.

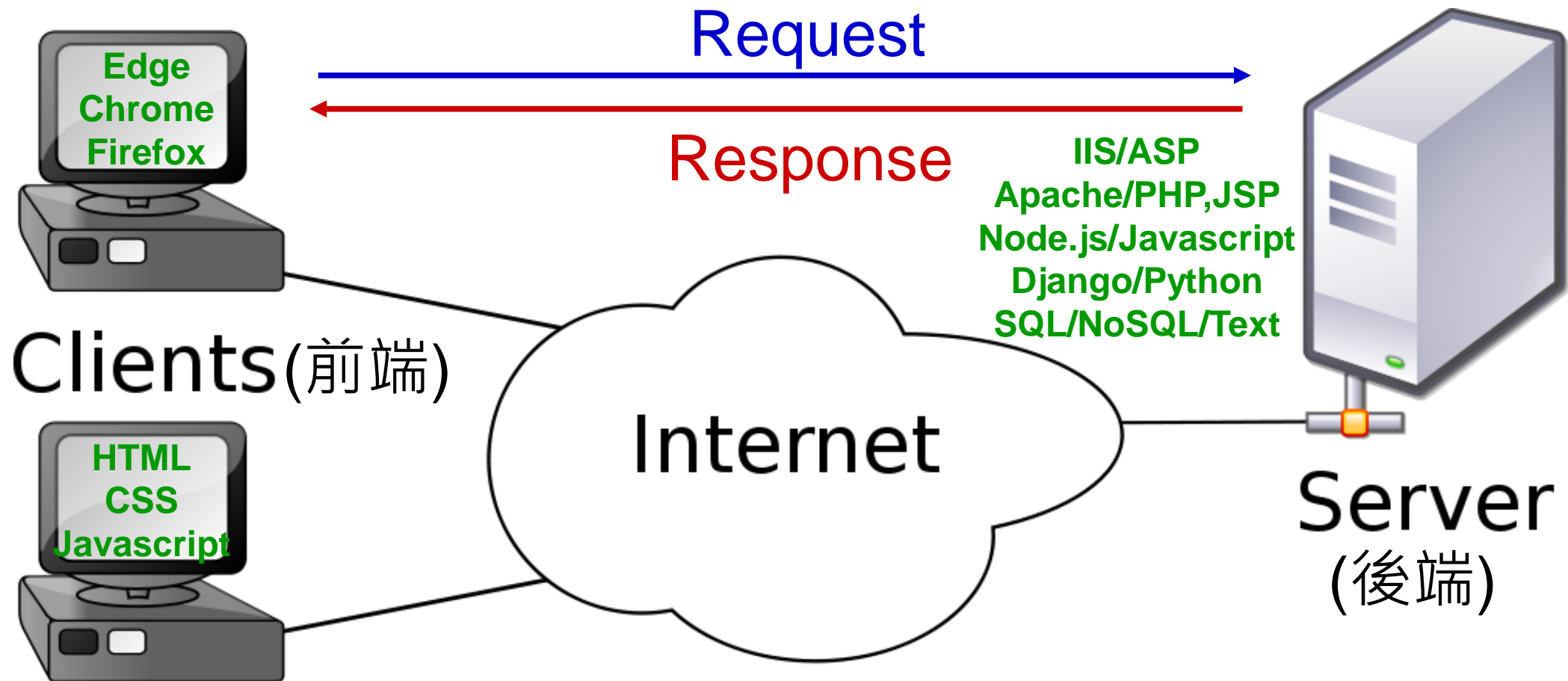
此文討論網路研究要小心的事項

前端技術

(HTML/CSS/JavaScript)

網頁前端(frontend)和後端(backend)

前端資料由瀏覽器來處理，
主要是頁面的顯示和小資料的儲存/查詢



後端資料由伺服器來處理，主要是大資料的儲存/查詢

HTML5小抄



Cheat Sheet [TAGS]

New [tags added in HTML5]

<article>	<i>self-contained composition that is independently distributable</i>	<details>	<i>details of an element</i>	<output>	<i>represents results of calculation</i>
<aside>	<i>section of page that consists of content tangentially related to content around it</i>	<embed>	<i>embedded content</i>	<progress>	<i>progress of any kind of task</i>
<audio>	<i>sound content</i>	<figcaption>	<i>caption of figure element</i>	<rp>	<i>parenthesized ruby text</i>
<bdi>	<i>span of text to be isolated from surroundings for bidirectional formatting purposes</i>	<figure>	<i>group of media content</i>	<rt>	<i>ruby text</i>
<canvas>	<i>area that can be used to draw graphics via JavaScript</i>	<footer>	<i>footer for section or page</i>	<ruby>	<i>ruby annotations</i>
<command>	<i>user invokable command</i>	<header>	<i>header for section or page</i>	<section>	<i>section in a document</i>
<datalist>	<i>dropdown list</i>	<hgroup>	<i>group of headings for section</i>	<source>	<i>media resources</i>
<datatemplate>	<i>data template</i>	<keygen>	<i>generated key in a form</i>	<summary>	<i>header of a detail element</i>
		<mark>	<i>marked text</i>	<time>	<i>date/time</i>
		<meter>	<i>measurement in defined range</i>	<video>	<i>video</i>
		<nav>	<i>navigation links</i>	<wbr>	<i>possible line break</i>

Old [unsupported tags]

<acronym>	<i>acronym</i>	<isindex>	<i>provides searchable index related to current document</i>
<applet>	<i>applet</i>	<dir>	<i>directory list</i>
<basefont>	<i>base font</i>	<noembed>	<i>no embed section</i>
<bgsound>	<i>background sound</i>	<noframes>	<i>no frame section</i>
<big>	<i>big text</i>	<s>	<i>strikethrough text</i>
<center>	<i>centered text</i>	<strike>	<i>strikethrough text</i>
<fn>	<i>footnotes</i>	<tt>	<i>teletype text</i>
	<i>text font, size, and color</i>	<u>	<i>underlined text</i>
<frame>	<i>sub window</i>	<xmp>	<i>preformatted text</i>
<frameset>	<i>set of frames</i>		

Existing [tags in HTML4 & 5]

<!--...-->	<i>comment</i>	<code>	<i>code text</i>	<html>	<i>html document</i>	<object>	<i>embedded object</i>	<sub>	<i>subscripted text</i>
<!doctype>	<i>document type</i>	<col>	<i>attributes for columns</i>	<i>	<i>italic text</i>		<i>ordered list</i>	<sup>	<i>superscripted text</i>
<a>	<i>hyperlink</i>	<colgroup>	<i>groups of columns</i>	<iframe>	<i>inline sub window</i>	<optgroup>	<i>option group</i>	<table>	<i>table</i>
<abbr>	<i>abbreviation</i>	<dd>	<i>definition description</i>		<i>image</i>	<option>	<i>option in a drop-down list</i>	<tbody>	<i>table body</i>
<address>	<i>address element</i>		<i>deleted text</i>	<input>	<i>input field</i>	<p>	<i>paragraph</i>	<td>	<i>table cell</i>
<area>	<i>image map area</i>	<div>	<i>generic block-level element</i>	<ins>	<i>inserted text</i>	<param>	<i>parameter for an object</i>	<textarea>	<i>text area</i>
	<i>bold text</i>	<dfn>	<i>defining instance of a term</i>	<kbd>	<i>keyboard text</i>	<pre>	<i>preformatted object</i>	<tfoot>	<i>table footer</i>
<base>	<i>base URL for all links in page relative to document root</i>	<dl>	<i>definition list</i>	<label>	<i>label for a form control</i>	<q>	<i>short quotation</i>	<th>	<i>table header</i>
<bdo>	<i>text direction</i>	<dt>	<i>definition term</i>	<legend>	<i>title in a fieldset</i>	<samp>	<i>sample computer code</i>	<thead>	<i>wraps row containing table headers</i>
<blockquote>	<i>long quotation</i>		<i>emphasized text</i>		<i>list item</i>	<script>	<i>script</i>	<title>	<i>document title</i>
<body>	<i>body element</i>	<fieldset>	<i>logically group items in a form</i>	<link>	<i>resource reference</i>	<select>	<i>selectable list</i>	<tr>	<i>table row</i>

	<i>single line break</i>	<form>	<i>defines a form</i>	<map>	<i>image map</i>	<small>	<i>small text</i>		<i>unordered list</i>
<button>	<i>push button</i>	<h1> to <h6>	<i>header 1 to header 6</i>	<menu>	<i>menu list</i>		<i>inline generic container</i>	<var>	<i>variable</i>
<caption>	<i>table caption</i>	<head>	<i>document information</i>	<meta>	<i>meta information</i>		<i>strong text</i>		
<cite>	<i>citation</i>	<hr>	<i>horizontal rule</i>	<noscript>	<i>no script section</i>	<style>	<i>style definition</i>		

Brought to you by:

HTML5 New Elements

```
<input list='clist'>  
<datalist id='clist'>  
  <option value='Tom'>  
  <option value='Mary'>  
  <option value='Sue'>  
</datalist>  
<br>
```

```
Progress: <progress value=0.6></progress><br>
```

```
Yes<meter value=0.1></meter><br>
```

```
No<meter value=9 min=0 max=10></meter><br>  
<br>
```

```
<form oninput='c.value=parseInt(a.value)+parseInt(b.value)'>  
<input type=range id=a value=100>100  
+<input type=number id=b value=100>  
=<output name=c></output>  
<br>
```

```
<!--http://www.w3schools.com/html/html5\_canvas.asp-->
```

```
<!--http://www.w3schools.com/html/html5\_geolocation.asp-->
```


Margin

Border

Padding

Content

CSS3小抄

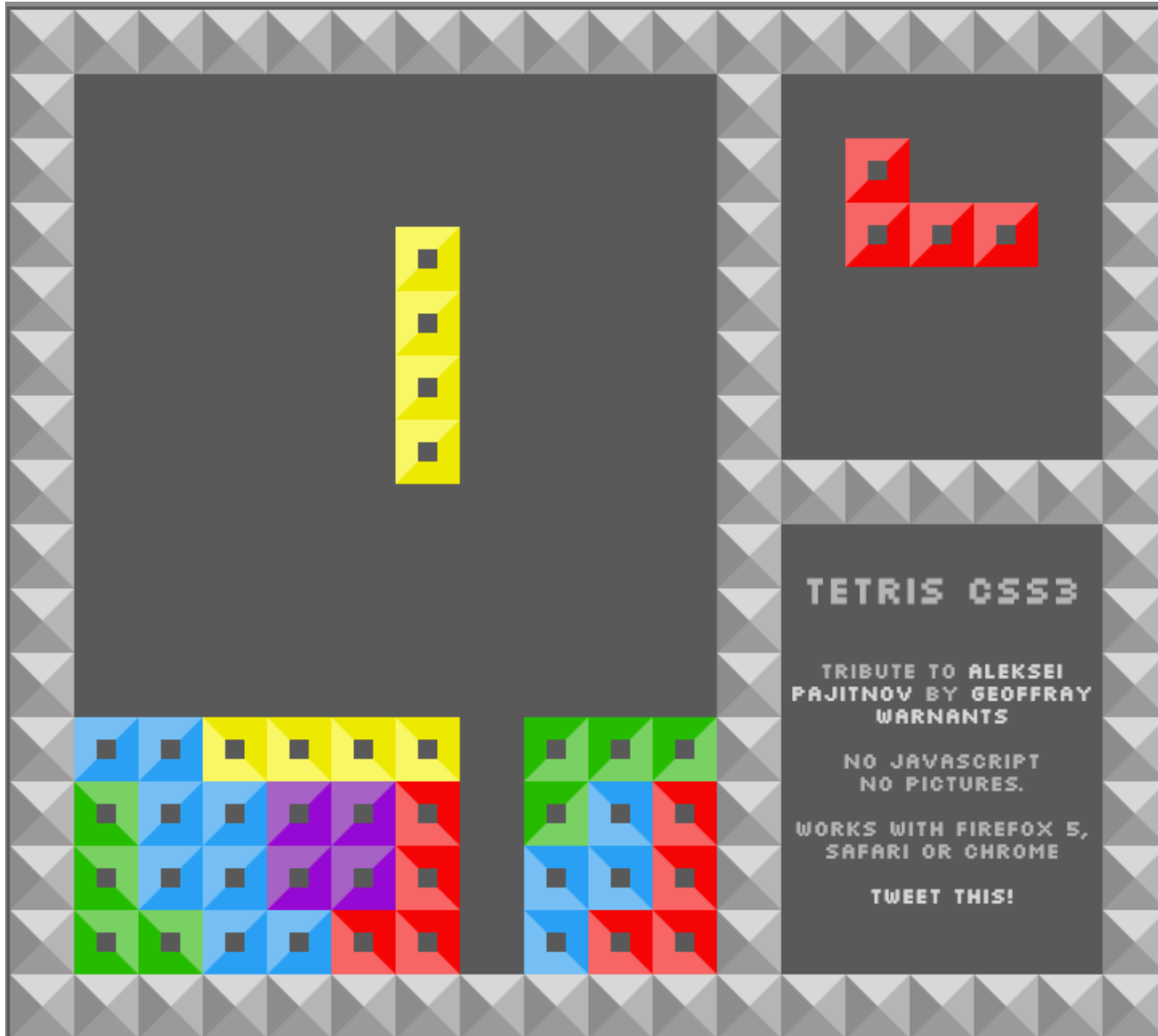
Quick Reference Guide

FREE

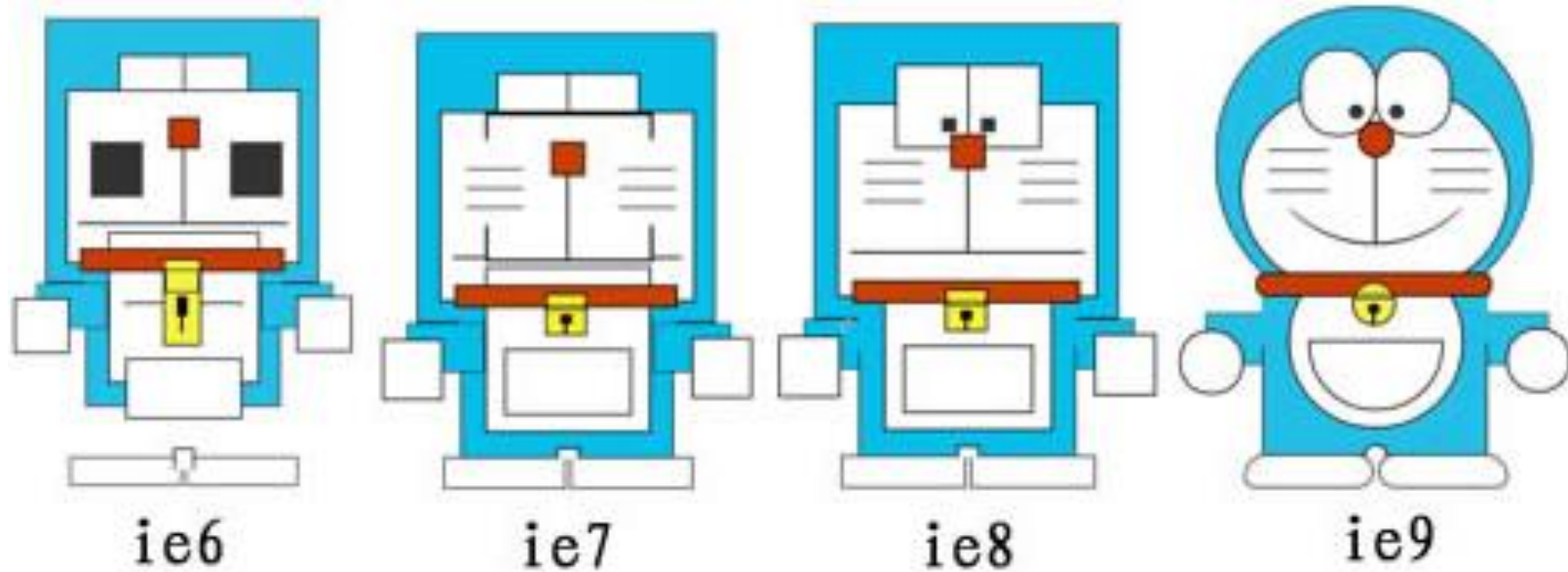
Cascading Style Sheets (CSS 3)

BACKGROUND		BORDER		BOX MODEL	
background	<i>background-image</i> <i>background-position</i> <i>background-size</i> <i>background-repeat</i> <i>background-attachment</i> <i>background-origin</i> <i>background-clip</i> <i>background-color</i>	border-top	<i>border-top-width</i> <i>border-style</i> <i>border-color</i>	float	left right none
background-attachment	scroll fixed	border-top-color	<i>border-color</i>	height	auto <i>length</i> %
background-break	bounding-box each-box continuous	border-top-style	<i>border-style</i>	max-height	none <i>length</i> %
background-clip	<i>length</i> % border-box padding-box content-box no-clip	border-top-width	thin medium thick <i>length</i>	max-width	none <i>length</i> %
background-color	<i>color</i> transparent	border-width	thin medium thick <i>length</i>	min-height	none inherit <i>length</i> %
background-image	<i>url</i> none	border-radius	<i>border-top-right-radius</i> <i>border-bottom-right-radius</i> <i>border-bottom-left-radius</i> <i>border-top-left-radius</i>	min-width	none inherit <i>length</i> %
background-origin	border-box padding-box content-box	border-top-right-radius	<i>length</i>	width	auto % <i>length</i>
background-position	top left top center top right center left center center center right bottom left bottom center bottom right <i>x</i> -% <i>y</i> -% <i>x-pos</i> <i>y-pos</i>	border-bottom-right-radius	<i>length</i>	margin	<i>margin-top</i> <i>margin-right</i> <i>margin-bottom</i> <i>margin-left</i>
background-repeat	repeat repeat-x repeat-y no-repeat	border-bottom-left-radius	<i>length</i>	margin-bottom	auto <i>length</i> %
background-size	<i>length</i> % auto cover contain	border-top-left-radius	<i>length</i>	margin-left	auto <i>length</i> %
BORDER		FONT		margin-right	auto <i>length</i> %
border	<i>border-width</i> <i>border-style</i> <i>border-color</i>	font	<i>font-style</i> <i>font-variant</i> <i>font-weight</i> <i>font-size/line-height</i> <i>font-family</i> caption icon menu message-box small-caption status-bar	margin-top	auto <i>length</i> %
border-break	<i>border-width</i>	font-family	<i>family-name</i> <i>generic-family</i> inherit	padding	<i>padding-top</i> <i>padding-right</i> <i>padding-bottom</i>

CSS3 Animation: tetris.html



CSS3支援度問題: doraemon.html



JavaScript

JavaScript使用前端(i.e., browser)產生動態網頁



簡易教學文件：

➤ [W3School](http://www.w3schools.com/)

互動學習網站：

➤ [CodeCademy](http://www.codecademy.com/)

➤ [CodeSchool](http://www.codeschool.com/)

JavaScript可結合HTML5的Canvas做更細緻的繪圖

JavaScript : Java = 助教 : 助理教授

早期的應用:網頁特效

只能說古人和現代人的審美觀差很多



Javascript範例: intro.html

語法和 C 語言很類似

```
<script>
var i=10;
var str='cold and lonely';
var animals=['cat','dog','panda'];
var tel={'suling':63097, 'tren':63104}
for(i=0; i<str.length; i++){ // while(i<str.length)
  console.log(str[i]);
  if(i<animals.length){
    alert(i+animals[i]);
  }
}
console.log(i)
function print(s1,s2){
  document.write(s1+' '+s2+"<br>");
}
for(i in tel){ print(i,tel[i]); }
</script>
```

Javascript範例: keyboard.html

Event-driven call-back function

Press something! You press `N/A`.

```
<script>
```

```
var f=document.getElementById("key")
```

```
document.onkeydown = function(e){
```

```
  var e=e || event
```

```
  f.innerHTML=String.fromCharCode(e.keyCode)
```

```
  if(e.keyCode==49) // '1'
```

```
    f.innerHTML+=" Great!"
```

```
}
```

```
</script>
```



Javascript範例: mouse.html

Event-driven call-back function

Click somewhere! You're clicking the `N/A` button on ``.

```
<script>
var b=document.getElementById("but")
var p=document.getElementById("pos")
document.onclick = function(e){
  var e=e || event
  switch(e.button){ # not working under Chrome
    case 0: b.innerHTML="left"; break;
    case 1: b.innerHTML="middle"; break;
    case 2: b.innerHTML="right"; break;
  }
  p.innerHTML=e.clientX+","+e.clientY
}
</script>
```

Javascript範例: rt.html

測量反應時間



Press something! Your RT is N/A.

```
<script>
```

```
var r=document.getElementById("rt")
```

```
startTime = new Date().getTime()
```

```
document.onkeydown = function(e){
```

```
var e=e || event
```

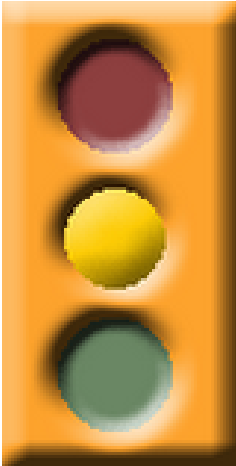

```
endTime = new Date().getTime();
```

```
r.innerHTML=(endTime-startTime)/1000
```

```
}
```

```
</script>
```


JavaScript測反應時間範例

Test Number	Reaction Time (in seconds)	The stoplight to watch.	The button to click.
1	<input type="text"/>		
2	<input type="text"/>		
3	<input type="text"/>		
4	<input type="text"/>		
5	<input type="text"/>		
AVG.	<input type="text"/>		
<input type="button" value="Start Over"/>			

JS範例: timed_events.html

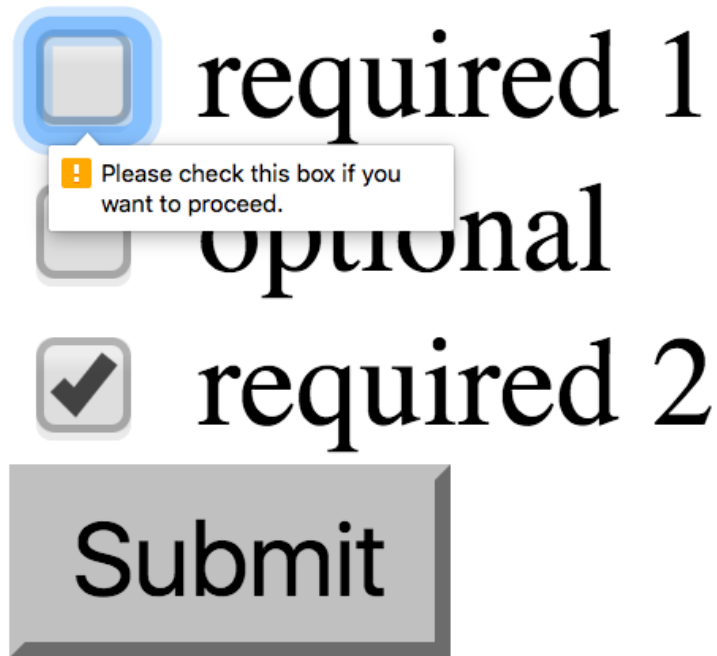


Non-blocking行為幫助多工



```
<script>
var t1=new Date().getTime();
function print(s){
  var t2=new Date().getTime();
  deltaT=t2-t1;
  document.write(deltaT+' '+s+"<br>");
}
setTimeout("print('test1');",3000)
setTimeout("print('test2');",6000)
var timer=setInterval(function(){print('test3');},2000);
setTimeout("clearInterval(timer)",10000)
</script>
```

JS Library使用範例: Parsley



☐ required 1

☐ optional

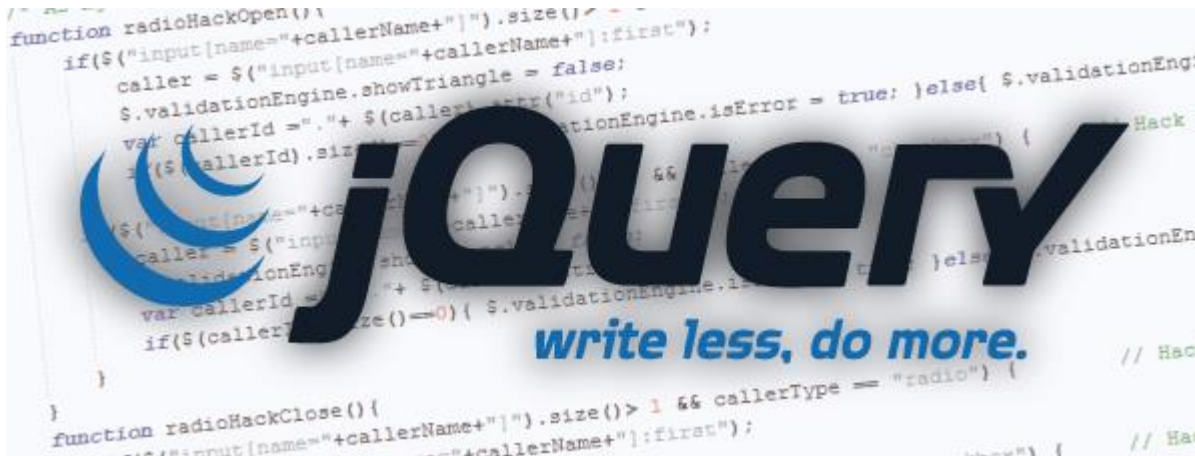
☒ required 2

Submit

```
<script src="http://parsleyjs.org/dist/parsley.min.js"></script>
<form>
  <input type="checkbox" name="q1" required> required 1<br>
  <input type="checkbox" name="q2" > optional <br>
  <input type="checkbox" name="q3" required> required 2<br>
  <input type="submit">
</form>
```

jQuery Core

jQuery極力簡化JavaScript的寫作



簡易教學文件:

➤ [W3School](https://www.w3schools.com/jquery/)

互動學習網站:

➤ [CodeCademy](https://www.codecademy.com/learn/jquery)

➤ [CodeSchool](https://www.codeschool.com/learn/jquery)

[React](#)的使用率已漸漸超過jQuery

jQuery範例: jq_test.html

Simplified Event-driven call-back function

```
<script src="http://code.jquery.com/jquery-3.2.1.min.js">
</script>
<div id="clickme">Click here</div>

<script>
$("#clickme").click(function(){
    $("#pic").fadeOut("slow",function(){
        var i=Math.floor(Math.random()*3)+1; //1,2,3
        $("#pic").attr("src",i+".jpg");
    });
    $("#pic").fadeIn();
});
</script>
```

jQuery範例: jq_sex.html (1/2)

```
<style> .page {display: none;} </style>
Please indicate the sex of this face:
<div class="page" id="page1">
<img src=1.jpg><br>
<input type=radio name=f1 value=M> M
<input type=radio name=f1 value=F> F <br>
<a href="javascript:NextTrial()">Next</a>
<span class="progress"></span>
</div>
<div class="page" id="page2">
<img src=2.jpg><br>
<input type=radio name=f2 value=M> M
<input type=radio name=f2 value=F> F <br>
<a href="javascript:NextTrial()">Next</a>
<span class="progress"></span>
</div>
```

jQuery範例: jq_sex.html (2/2)

```
<script>
var order = new Array(1,2,3,4);
var current = 0; //current trial
$(document).ready(function(){
  ShowTrial(current);
});
function ShowTrial(t) {
  $("#page" + order[t]).show();
  var N = t+1; //counting from 1
  $(".progress").text( '(' + N + '/' + order.length + ')' );
}
function NextTrial() {
  $("#page" + order[current]).hide();
  current++;
  ShowTrial(current);
}
</script>
```

jQuery UI

Demos: Few responsive components

The screenshot shows the jQuery UI website homepage. At the top is a dark navigation bar with icons for various tools and links for Plugins, Contribute, Events, Support, and the jQuery Foundation. Below this is a large orange header with the jQuery UI logo. A secondary navigation bar contains links for Demos, Download, API Documentation, Themes, Development, Support, Blog, and About, along with a search bar. The main content area is divided into several sections:

- Interactions:** A list of interactive components including Draggable, Droppable, Resizable, Selectable, and Sortable.
- Widgets:** A list of standard UI components including Accordion, Autocomplete, Button, Datepicker, Dialog, Menu, and Progressbar.
- Main Content:** A large text block stating that jQuery UI is a curated set of user interface interactions, effects, widgets, and themes built on top of the jQuery JavaScript Library. It emphasizes its suitability for both highly interactive web applications and simple form controls.
- Download jQuery UI 1.11.4:** A section with a 'Custom Download' button and 'Quick Downloads' for 'Stable' (v1.11.4, jQuery 1.6+) and 'Legacy' (v1.10.4, jQuery 1.6+) versions.
- What's New in jQuery UI 1.11?:** A section announcing a new 'selectmenu' widget, support for AMD and Bower, and over 50 bug fixes. It provides links to upgrade guides and changelogs for versions 1.11.1 through 1.11.4.
- Dive In!:** A section stating that jQuery UI is built for designers and developers alike, with all plugins designed to be accessible.
- Developer Links:** A list of links for developers, including Source Code (GitHub), jQuery UI Git (WIP Build), Theme (WIP Build), Bug Tracker, Submit a New Bug Report, Discussion Forum, Using jQuery UI, Developing jQuery UI, and Development Planning Wiki.

jQuery Mobile

jQuery Mobile可產生更適合手機的使用介面



The screenshot shows the jQuery Mobile website homepage. At the top is the jQuery Mobile logo. Below it is a navigation bar with links: Demos, Download, API Documentation, Themes, Resources, Blog, and About. A search bar is on the right. The main heading is "A Touch-Optimized Web Framework". Below this is a paragraph: "jQuery Mobile is a HTML5-based user interface system designed to make responsive web sites and apps that are accessible on all smartphone, tablet and desktop devices." To the right is a "Download jQuery Mobile" section with two buttons: "Custom download" and "Latest stable". Below the "Latest stable" button, it says "Version 1.4.2" and "jQuery 1.8 - 1.10 / 2.0". On the left, there is a section titled "Seriously cross-platform with HTML5" with a paragraph: "jQuery Mobile framework takes the 'write less, do more' mantra to the next level: Instead of writing unique applications for each mobile device or OS, the jQuery mobile framework allows you to design a single highly branded responsive web site or...". To the right of this paragraph is an image of several smartphones. On the far right, there is a "Developer Links" section with a list: "Source Code (GitHub)", "jQuery Mobile Git (WIP Build)", and "JavaScript".

jQuery mobile

[Demos](#) [Download](#) [API Documentation](#) [Themes](#) [Resources](#) [Blog](#) [About](#)

A Touch-Optimized Web Framework

jQuery Mobile is a HTML5-based user interface system designed to make responsive web sites and apps that are accessible on all smartphone, tablet and desktop devices.

Download jQuery Mobile

Custom download

Latest stable

Version 1.4.2
jQuery 1.8 - 1.10 / 2.0

Seriously cross-platform with HTML5

jQuery Mobile framework takes the "write less, do more" mantra to the next level: Instead of writing unique applications for each mobile device or OS, the jQuery mobile framework allows you to design a single highly branded responsive web site or...



Developer Links

- [Source Code \(GitHub\)](#)
- jQuery Mobile Git (WIP Build)
 - [JavaScript](#)

必看的[jQuery Mobile Demo](#)

jQMobile範例:mobile.html (1/2)

Header
Hello from page 1
Next Page
Footer

```
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href=
"http://code.jquery.com/mobile/1.4.5/jquery.mobile-1.4.5.min.css">
<script src="http://code.jquery.com/jquery-2.1.4.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.5/jquery.mobile-1.4.5.min.js">
</script>
```

```
<div data-role="page" id="p1">
  <div data-role="header"><h1>Header</h1></div>
  Hello from page 1
  <a href="#p2" class="ui-btn">Next Page</a>
  <div data-role="footer"><h1>Footer</h1></div>
</div>
```



Check me

Type to search...

Cat

Dog

Panda

Previous Page

如果你討厭寫很多程式的話:

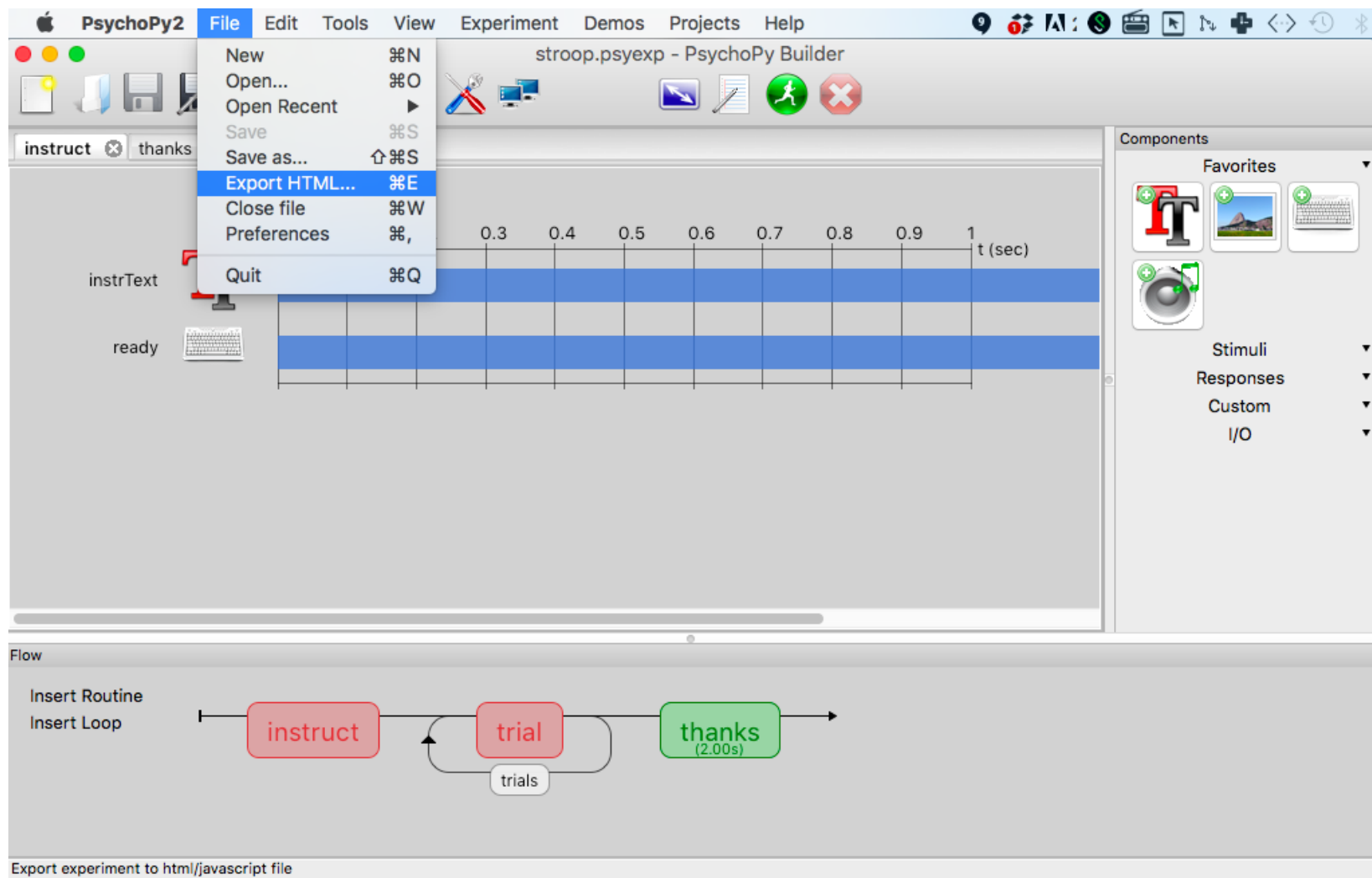


jsppsych

PsychoPy

1.85.1版

1.85.1版以上可把Builder的demos變成網頁版



本週作業

進一步研究Javascript/jQuery

1. 在jq_sex.html用javascript的document.write()配合迴圈寫出#page1到#page3的內容來取代原始html的冗餘寫法。(3分)
2. 在測試結束後於螢幕上列印出回應正確率。(3分)

-----或-----

3. 將第三週的動物偵測實驗改寫成網頁版本。(6分)



GAME Over

