


# The result of OCR Using each 4 options

Pak Minseok, Hanyang University Seoul

```
C:\Windows\system32\cmd.exe
<Select the menu>
1. This is first OCR process for this image(Default)
2. If the result of '1' is bad, Apply Grayscale
3. If Background is a little bit complex, Apply Grayscale+Threshold
4. If Background is complex, Apply Grayscale+Blur+Threshold
Select :
```

(Time : millisecond / Accuracy : %)

## 1. Image\_1 - Simple Background

	First : Time - 2400/ Accuracy - 100
	Second :Time – 1940~1960 / Accuracy - 100
	Third : Time – 2000 / Accuracy - 100
	Last : Time – 2600 / Accuracy - 80
The best option is Second	

<These images are the result of preprocessing by Last option>

<Grayscale>



<blur>




<Threshold>



# The result of OCR Using each 4 options

Pak Minseok, Hanyang University Seoul

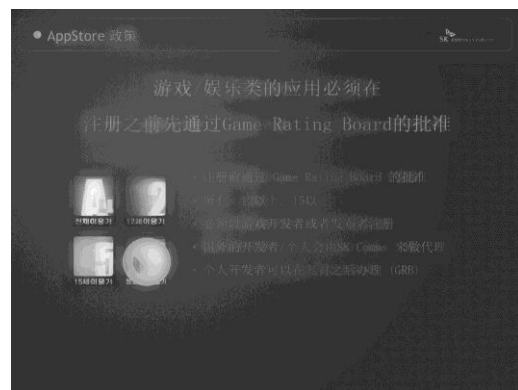
## 2. Image\_2 – Simple Background

	First : Time - 6600/ Accuracy - 100
	Second :Time – 6680 / Accuracy - 100
	Third : Time – 6440 / Accuracy - 80
	Last : Time – 15650 / Accuracy - 0
The best option is First	

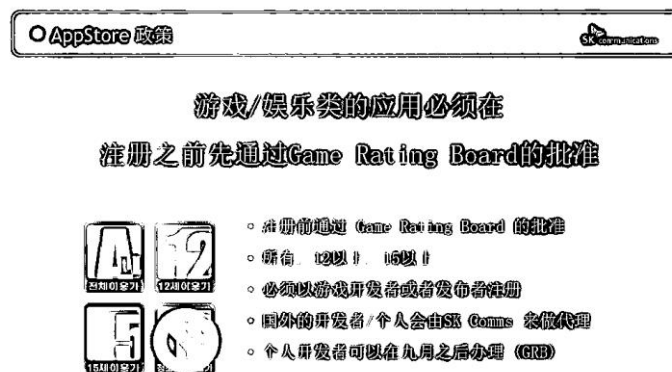
<Grayscale>



<blur>




<Threshold>



# The result of OCR Using each 4 options

Pak Minseok, Hanyang University Seoul

## 3. Image\_3 – Simple Background

	First : Not Working
	Second :Time – 1720 / Accuracy - 80
	Third : Time – 2100 / Accuracy - 80
	Last : Time – 2350 / Accuracy - 50
The best option is Second	

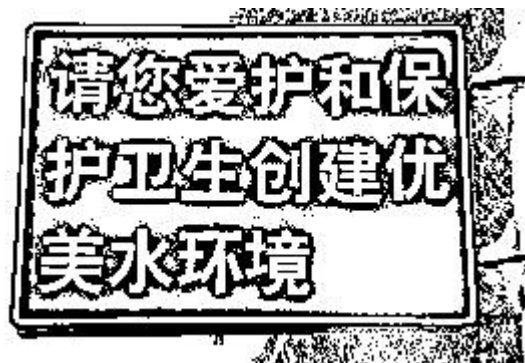
<Gray>



<Blur>



<Threshold>



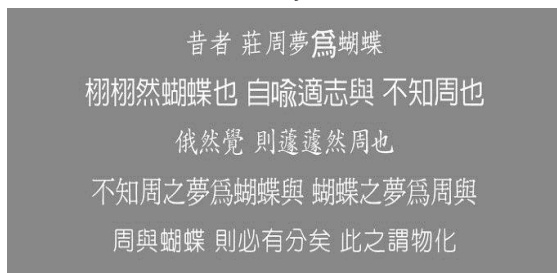
# The result of OCR Using each 4 options

Pak Minseok, Hanyang University Seoul

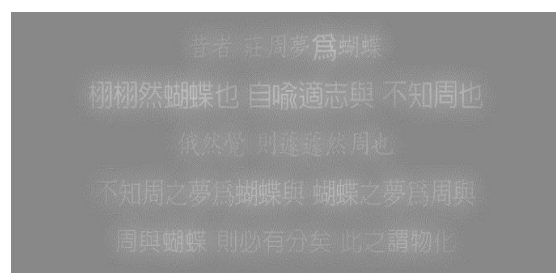
## 4. Image\_4 – Simple Background

<p>昔者 莊周夢爲蝴蝶 栩栩然蝴蝶也 自喻適志與 不知周也 俄然覺 則蘧蘧然周也 不知周之夢爲蝴蝶與 蝴蝶之夢爲周與 周與蝴蝶 則必有分矣 此之謂物化</p>	First : Time - 9290/ Accuracy – 95
	Second :Time – 9820 / Accuracy – 90
	Third : Time – 9330 / Accuracy – 95
	Last : Time – 9930 / Accuracy - 0
The best option is First	

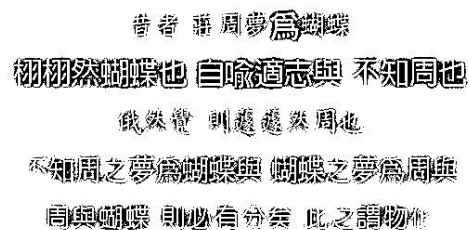
<Grayscale>



<blur>




<Threshold>



# The result of OCR Using each 4 options

Pak Minseok, Hanyang University Seoul

## 5. Image\_5 – Complex Background

	First : Time - 6370/ Accuracy - 20
	Second :Time – 11520/ Accuracy - 25
	Third : Time – 9220 / Accuracy - 25
	Last : Time – 12200 / Accuracy - 40
The best option is Last	

<Grayscale>



<blur>



<Threshold>






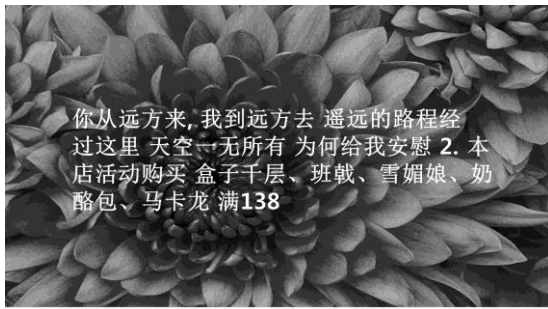
# The result of OCR Using each 4 options

Pak Minseok, Hanyang University Seoul

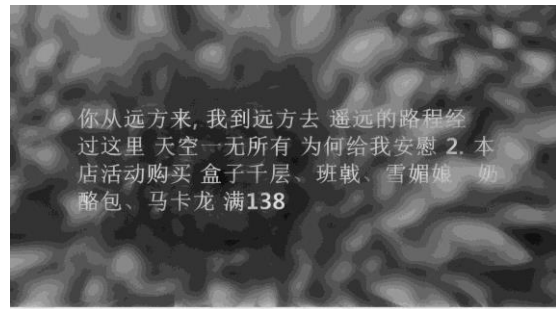
## 6. Image\_6 – Complex Background

	First : Time - 3490/ Accuracy - 90
	Second :Time – 15400/ Accuracy - 0
	Third : Time – 3240 / Accuracy - 90
	Last : Time – 11340 / Accuracy - 0
The best option is Third	

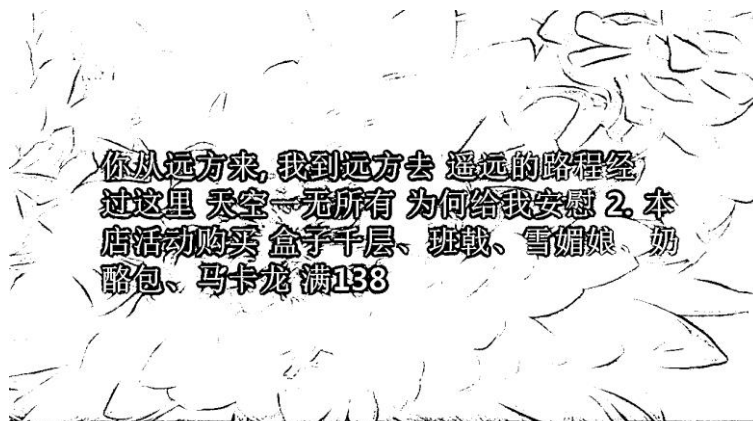
<Grayscale>



<blur>



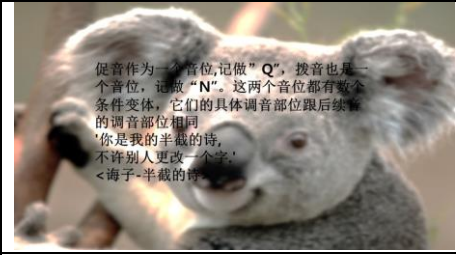
<Threshold>



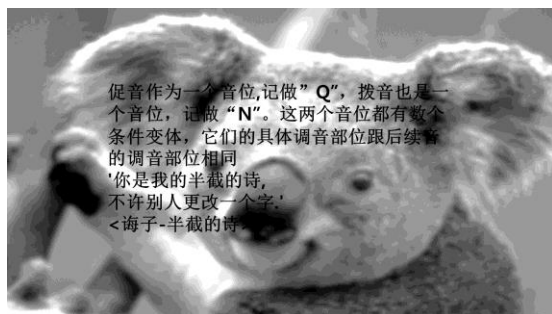
# The result of OCR Using each 4 options

Pak Minseok, Hanyang University Seoul

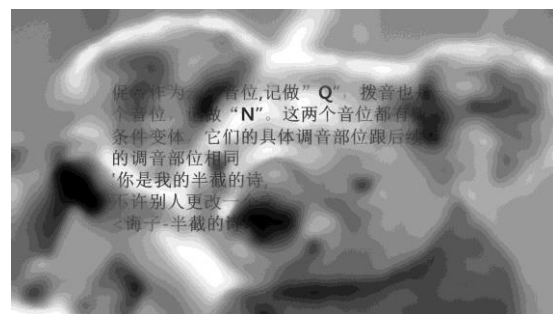
## 7. Image\_7 – Complex Background

	First : Time - 3610/ Accuracy - 10
	Second :Time –4060/ Accuracy - 10
	Third : Time – 4340 / Accuracy - 10
	Last : Time – 7730 / Accuracy - 90
The best option is Last	

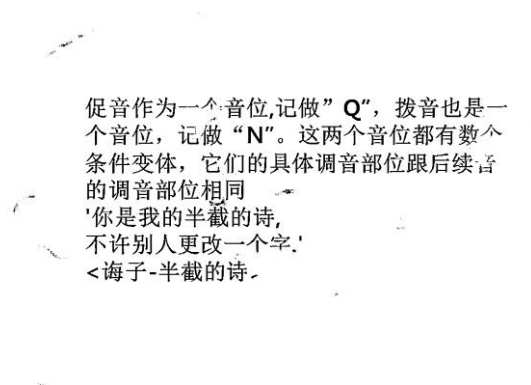
<Grayscale>



<blur>



<Threshold>



The result of OCR Using each 4 options

Pak Minseok, Hanyang University Seoul

## <Conclusion>

- More sentences in image, Longer elapsed time.
- Accuracy is more than 80%.
- If background of image is simple, option 1 or 2 is best.
- If background of image is simple, option 4 is worst.
- If background of image is complex, apply option 3 or 4 for more accuracy, but it takes long time.
- Also if background of image and text are not distinguish, option 3 or 4 is best option.