

## Heuristic Evaluation of Pan-lingual Mobile Camera

### **Problem**

A pan-lingual camera phone that allows a user to take pictures of text and get a bidirectional translation between languages; assumptions are made that the underlying technology necessary to achieve this is available.

### **Violations Found**

**1. [H2-1 Visibility of System Status] [Severity 3] [Reviewers 1,3]**

The little white boxes of reminder/help text are at a font size that is almost impossible to read, and hard to notice. The user may not notice the status box and have no clue to the system status.

**2. [H2-3 User Control and Freedom] [Severity 1] [Reviewers 1]**

After selecting “To Chinese...” the user could no longer go back to another language. This was probably an error in the prototype, and not intended, but is mentioned anyway.

**3. [H2-2 Match Between the System and the Real World] [Severity 2] [Reviewers 1]**

After clicking on “HOCUCINAM” or “school”, a little green version of the word pops up – green stands out, but we have no idea why.

**4. [H2-7 Flexibility and Efficiency of Use] [Severity 2] [Reviewers 1, 2, 4]**

A stylus makes the user want to be able to drag-select or circle-select multiple words, as it is a standard interaction. Denim has no support for this, but there was also no mention of it in the report. A user will definitely try to do it, and have nothing happen?

**5. [H2-2 Match Between the System and the Real World] [Severity 2] [Reviewers 1, 2, 3, 4]**

Labeling the focus on text feature as “zoom” is not how a user will think of it. Zoom is an action on a picture that zooms in on a smaller section. The system doesn't properly describe it.

**6. [H2-3 User Control and Freedom] [Severity 3] [Reviewers 1, 3, 4]**

There is no way to cancel out of an action, especially “zooming” which requires three clicks before you get a chance to go back. The user may get stuck in an action they don't want.

**7. [H2-10 Help and Documentation] [Severity 3] [Reviewers 1, 2, 3, 4]**

There is no help available anywhere, and no mention of it anywhere in the system. There should at least be a dead link or a menu item that doesn't function.

**8. [H2-4 Consistency and Standards] [Severity 1] [Reviewers 1]**

The “plus” icon is used in two places to mean two different things—once on the top as a button to zoom in, and once on the bottom to let you know you are zoomed in. It could be confusing.

**9. [H2-7 Flexibility and Efficiency of Use] [Severity 3] [Reviewers 1, 3]**

Taking a photo is done with a tiny little button and the camera also appears to be on the front of the phone; taking a photo would be awkward to say the very least. Also, there was no mention of being able to take a photo using the camera button built into the phone.

**10. [H2-7 Flexibility and Efficiency of Use] [Severity 2] [Reviewers 1]**

There is no mention or no “dead button” for importing things into the translator. What if you have previously taken a photo, or if you want to import a multimedia message.

**11. [H2-2 Match Between the System and the Real World] [Severity 3] [Reviewers 1, 2, 3, 4]**

There appears to be no save functionality. Its assumed when dealing with a camera on a phone that you can save photos and recall translations at a later time without having to go through the entire process again.

**12. [H2-3 User Control and Freedom] [Severity 2] [Reviewers 1, 2]**

There appears to be no way and no mention of inputting text for translation. It seems ridiculous to be forced to right on a note and then take a photo of it to get a translation.

**13. [H2-5 Error Prevention] [Severity 4] [Reviewers 2, 4]**

You need to see what is going to be translated into a foreign language. If the OCR has some issue, or misinterprets what you want to say, you need to see in your native language what it thinks you said before you say something in a foreign language and make a fool of yourself.

**14. [H2-7 Flexibility and Efficiency of Use] [Severity 4] [Reviewers 2, 4]**

There are sometimes when the system may not know what language you are translating out of—say, for instance, Japanese kanji and Chinese characters, or a phrase of a few words that is completely language-ambiguous, needs to have a selectable source language. Or say, for instance, a phrase with multiple languages. There is no support for this.

**15. [H2-1 Visibility of System Status] [Severity 1] [Reviewers 4]**

All screens should have some sort of info box or status bar indicating what the screen is, as reminder text.

**16. [H2-2 Match Between the System and the Real World] [Severity 2] [Reviewers 4]**

Things the system can't (or shouldn't) translate, such as proper names, should at least show up in the translated text as untranslatable.

**Summary of Violations**

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
[H2-1: Visibility of Status]	0	1	0	1	0	2
[H2-2: Match Sys & World]	0	0	3	1	0	4
[H2-3: User Control]	0	1	1	1	0	3
[H2-4: Consistency]	0	1	0	0	0	1
[H2-5: Error Prevention]	0	0	0	0	1	0
[H2-6: Recognition not Recall]	0	0	0	0	0	0
[H2-7: Efficiency of Use]	0	0	2	1	1	4

[H2-8: Minimalist Design]	0	0	0	0	0	0
[H2-9: Help Users with Errors]	0	0	0	0	0	0
[H2-10: Documentation]	0	0	0	1	0	1
<b>Total Violations</b>	16					

### Evaluation Statistics

severity\evaluator	reviewer #1	reviewer #2	reviewer #3	reviewer #4	reviewer #5
level 0	0%	0%	0%	0%	
level 1	66%	0%	0%	33%	
level 2	83%	50%	17%	50%	
level 3	100%	40%	100%	60%	
level 4	0%	100%	0%	100%	
<b>total (levels 3 &amp; 4)</b>	71%	57%	71%	71%	
<b>total (all levels)</b>	75%	44%	38%	50%	
reviewer #	problems found	Unique problems found			
1	12				
2	7	Shared all with 1&4			
3	6	Shared all with 1&4			
4	8	4 not shared with 1 (13,14,15,16)			
5					

