

# Hindi Virtual Keyboards Evaluation- IEEE WG1908.1 Survey 12Nov-11Dec 2013 Findings

**Published: 12 Dec 2013**

For more information please visit the [WG home page](#)

Total Number of responses: 34

## Summary

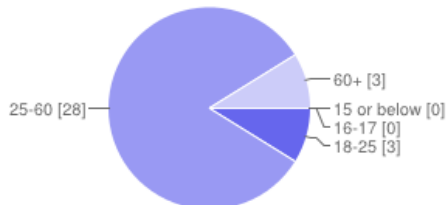
### Information

### Demographics

#### Email-id of respondent

Red acted

#### Age



15 or below 0 0%

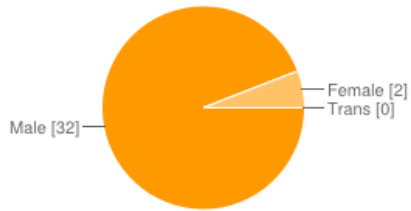
16-17 0 0%

18-25 3 9%

25-60 28 82%

60+ 3 9%

#### Gender



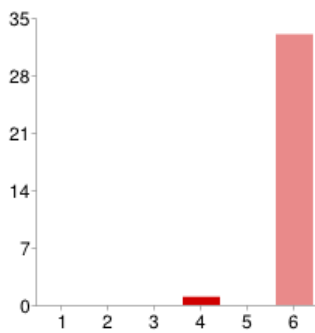
Male 32 94%

Female 2 6%

Trans 0 0%

### Exposure to Desktop/Laptop PC in years

Scale: 1 year or less ----- 3 years or more



1 0 0%

2 0 0%

3 0 0%

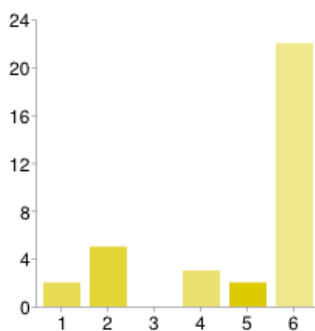
4 1 3%

5 0 0%

6 33 97%

### Exposure to Smartphone/Tablet with touch interface

Scale: 1 year or less ----- 3 years or more



1 2 6%

2 5 15%

3 0 0%

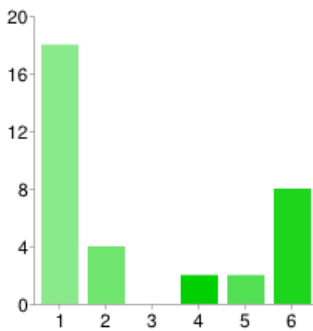
4 3 9%

5 2 6%

6 22 65%

## Exposure to Hindi typing on PC/Tablet/Touchphone

Scale: 1 year or less ----- 3 years or more



1 18 53%

2 4 12%

3 0 0%

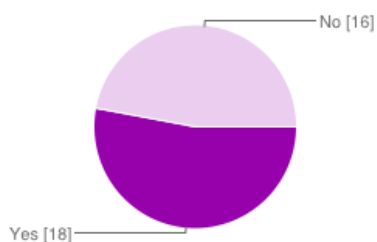
4 2 6%

5 2 6%

6 8 24%

## Android Device test information

Have you tested the app on Android device

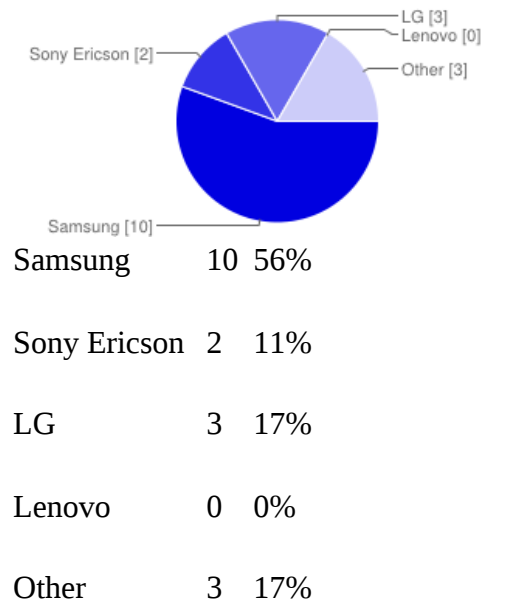


Yes 18 53%

No 16 47%

# Android Device Information

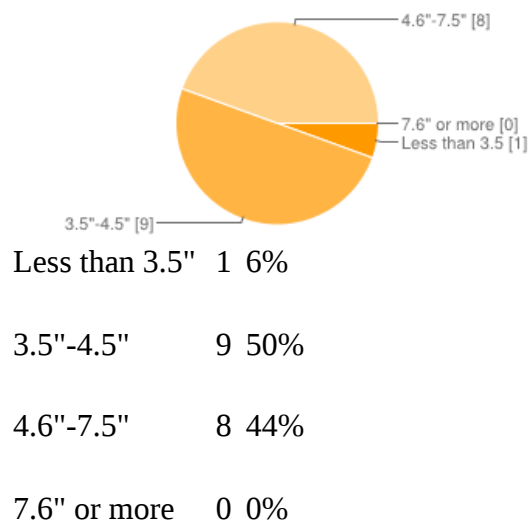
## Manufacturer



## Model No

GT-S5820 LGP715 GT-N7100 MT27i Canvas2 Galaxy Note s 4 Mk16i 9100 9850981999 a500 Nexus 4 HD2 GT-I9003 GT B5512 GT-7562 GT-19070

## Screen physical size(diagonal)



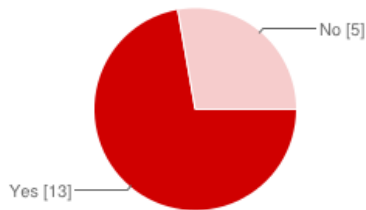
## Resolution of Screen width(min dimension)

800 480 320 240 2.5" 3.17in 768 2.3"

## Resolution of Screen height(max dimension)

3.8" 800 3.75" 480 1280 5.95in 320 854 1200 900

## Have you tested "Hindi Alphabetic From Top" keyboard

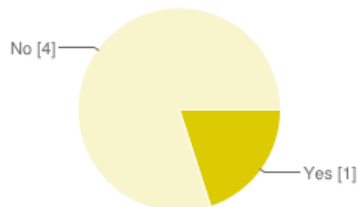


Yes 13 72%

No 5 28%

## Check Testing on Hindi Alphabetic From 2nd Row

### Have you tested "Hindi Alphabetic From 2nd Row" keyboard



Yes 1 20%

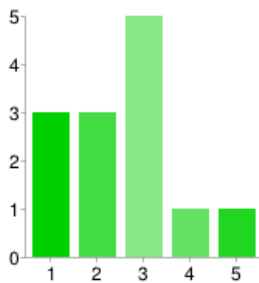
No 4 80%

## Feedback on "Hindi Alphabetic From Top "

### "Hindi Alphabetic From Top" Keyboard

Time taken for typing the Hindi text: हिन्दी संवैधानिक रूप से भारत की प्रथम राजभाषा है

Scale: 1 minute or less ----- 5 minutes or more



1 3 23%

2 3 23%

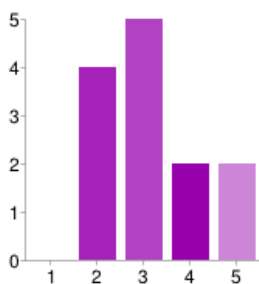
3 5 38%

4 1 8%

5 1 8%

## Ease of typing

Scale: Easy ----- Hard



1 0 0%

2 4 31%

3 5 38%

4 2 15%

5 2 15%

## Improvement suggestions

Number of responses: 13

"Using mechanism of shift key making things bit difficult as need to go to other screen quite often. Words which uses Halant or half words like Kyon, Pankati, Kayaree and so on bit tricky and time consuming

Only characters not frequently used move post shift like Ana, Th, but Kh, Bh and few others need on front."

it shall be english phoic based and display keyboard shall also be in English, Most of people don't know Hindi alphabet sequences.

Vowels and Consonants could be differentiated with a border line

vowels on top line, primary consonants on second and third, and stressed consonants in 'shift' page, in same place. That's how I remember 'Vyanjan' as a list from school notebook.

"\* I liked the overall layout of keyboard, but speed is slightly sluggish compared to my Samsung keyboard.

\* I could not write the word "बढ़िया" in this keyboard. For example, I wanted to write : आजबढ़ियादिनहै (Today is a good day.)

But in the word "बढ़िया" I am not able to put "Dot" under the alphabet "ढ" and "Vowel Matra ि" at the same time.

It was always writing : "बढ़िया". (Please notice the dot is missing under the alphabet "ढ")

My observation is that whenever we have to mix the "Bottom dots" and "Vowel Maatras" it will be a problem

"

find little difficult for type  
spell check and suggestions.

"Number of keys is nearer to inscript.  
we can make it better, by moving alpa swara in first layer, derga swara in second layer.  
double tap of alpa swara, can render derga swara.  
Dictionary bases intuitiveness can make things very much better."

"Both the keyboards are easy to use.

Here are suggestions for both the layouts:

1. Need to have more punctuation characters on the first layer. They can be available by long press and can be shown in small font on one side.
  2. Need to have numbers also on the first layer. They can be available by long press and can be shown on top in small font.
  3. Instead of second layer, long charaters (Aa, EE, OO) etc. should be available by long press."
- More phonetic translation.

"For someone used to Inscript on PC, this layout looks different, so there is tendency to search for letter is usual location (as it was on inscript), and not searching as per letter order (barakhadi). Getting independent vowel in middle of word is tricky.

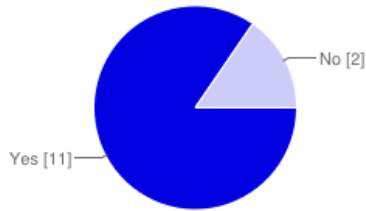
With some practice, should be able to type above sentence in a minute.

With 11 letters in a row, there is not much of fat-finger issue in touch typing.

In both overlays, we have vowels, perhaps in default overlay it could be vowel signs. and vowels in shifted overlay, then issue of combining vowels with consonant will be simpler."

Need to improve predictability of location of next letter from word.

**Have you tested "Hindi Alphabetic From 2nd Row" keyboard**



Yes 11 85%

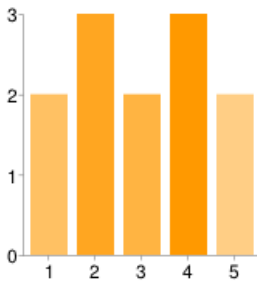
No 2 15%

## Feedback on "Hindi Alphabetic from 2nd row"

### Hindi Alphabetic keyboard from 2nd row

**Time taken for typing the hindi text (हिंदी संवैधानिक रूप से भारत की प्रथम राजभाषा है)**

Scale: 1 minute or less ----- 5 minutes or more



1 2 17%

2 3 25%

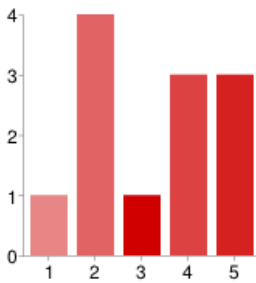
3 2 17%

4 3 25%

5 2 17%

### Ease of typing





1 1 8%

2 4 33%

3 1 8%

4 3 25%

5 3 25%

## Improvement suggestions

Number of responses: 4

"Keyboard Layout comparatively small and often moving to other character. Not able to get small e correctly used as requires trick to use instead of kai use Ki."

Letters on keys need to be bigger. Layout seems bit confusing.

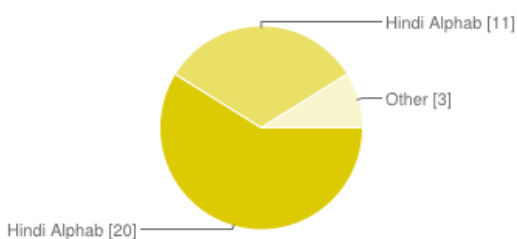
I prefer the second layout as conceptually it looks neater.

"This seemed easier to use, since follows inscript like placement of letter groups in vertical fashion. Layout overall was easier to use than top row one. But faced more fat-finger issues with this layout, maybe due to the graphical design using box outline. If finger touch is not falling at center of box then there is tendency of next letter to be pressed. There is also an issue of going backspacing, like was to type C1 v C2 , but typed C1 C2 , going back deleting C2, entering vowel gives C1 V , instead of C1 v  
v - matra, V - vowel.

Would be better is ञ and ण should be on default overlay, ञ is not that frequently used. Visarg and ः could be on common key."

## Overall Preference

### Your overall preference for keyboard



Hindi Alphabetic From Top	20	59%
Hindi Alphabetic From 2nd row	11	32%
Other	3	9%

## General comments on the Keyboards

Number of responses: 34

Its looking good.

Liked the view comes on phone for character but should provide me both options to use like kee or Kai both use Ee but using Ee is tricky.

Improvement needed

Good initiative

I will respond after trying it.

keyboard must be simple and attractive look and has new technologies like WiFi and Bluetooth connectivity and has volume control nob and many more

Make vowels on top row, constant across shifted pages. Make primary consonants on unshifted page and secondary/stressed consonants on shifted pages, at the same location as their primary brothers.

It would be helpful to separate alphabets and numerals+symbols

Should be having a logical sense of alphabets - unlike qwerty ones.

"Please see my previous suggestion in keyboard section.

\* I would also like Swype feature, as I have in my Samsung phone by default. "

required more swift op

More shortcuts on long press of keys.

Please consider including TAMIL language virtual keyboard, It's a classical language.

"Its Helpful and Useful.

No More Comments....."

Satisfied

It is a good initiative to promote the use of Indian languages.

Assistance for typing will help users to easily understand and grasp very easily.

Coming up with one common layout, reducing the number of layers will be required. Layers can be reduced by scrolling keys, context lens, etc. as was discussed in the WG meeting can be explored and standardised.

Comfortable

789

In my opinion it is possible to have keyboards in Indian languages, but the most frequently used letters should be in the middle - both vertically and horizontally, expanding horizontally right or left and vertically also first down and then above. The alphabetical modifications (like a, aa, i, ee, u, uu etc.) should be on top. The keyboards designers I am sure will take all this into account.

"I prefer the first keyboard alphabetical from first row

Number of keys must be minimal, so that its easy to type and possibility of miss type is less.

Moving alpa swara in first layer, derga swara in second layer.

double tap of alpa swara, can render derga swara.

Dictionary bases intuitiveness can make things very much better."

Should be user friendly

Not checked on Android but by looking at the layout the top one looks confortable, may be due to its blak background the letter are visible and more clear for fast writing

No comments

Would have to try before I can coment

"I think, user comfort depends a lot on accuracy of text recommender or text completion softwares. I have seen people change even english keyboards based on purely how autocomplete behaves. This in case where the orientation and arrangement of alphabets is long settled.

On a completely different note, based on assumption that Hindi keyboard would be used by people people in semi urban or rural areas. It would be nice to have a keyboard that resembles the one introduced by Nokia, typing with alphanumeric keys.

I thank and congratulate you for the initiative. "

Great addition to smartphone. This will benefit millions of Indians.

I prefer to use more options from long press, gestures and menus as part of the standard to make ease of entry.

Need phonetic translation.

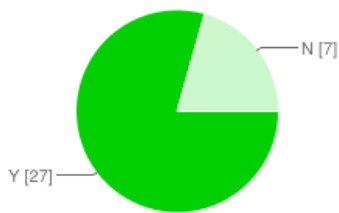
yet to experience.

"Actually both seem easy to use, but I found 2nd row one easier since it has some similarity with inscript which I am used to.

Top row one would be easy for 1st time users with not much prior experience using Indic input."

It becomes difficult for novice user to search required letter.

### Would you like to be contacted for updates on this initiative



Y 27 79%

N 7 21%

### Number of daily responses

