

Development of mobile applications for seniors

platform : Android | project coordinator : Manos Saratsis

About : To design and develop simple mobile applications for seniors (age : 65+).

These would include : 1) catalogue, 2) call and 3) messages. We aim for design and functionality that augment perceptual easiness of apps use in our user group.

Contents:

1) presenting information on screen

2) the binary concept

3) the micro-macro concept

4) general guidelines

5) catalogue

6) calls

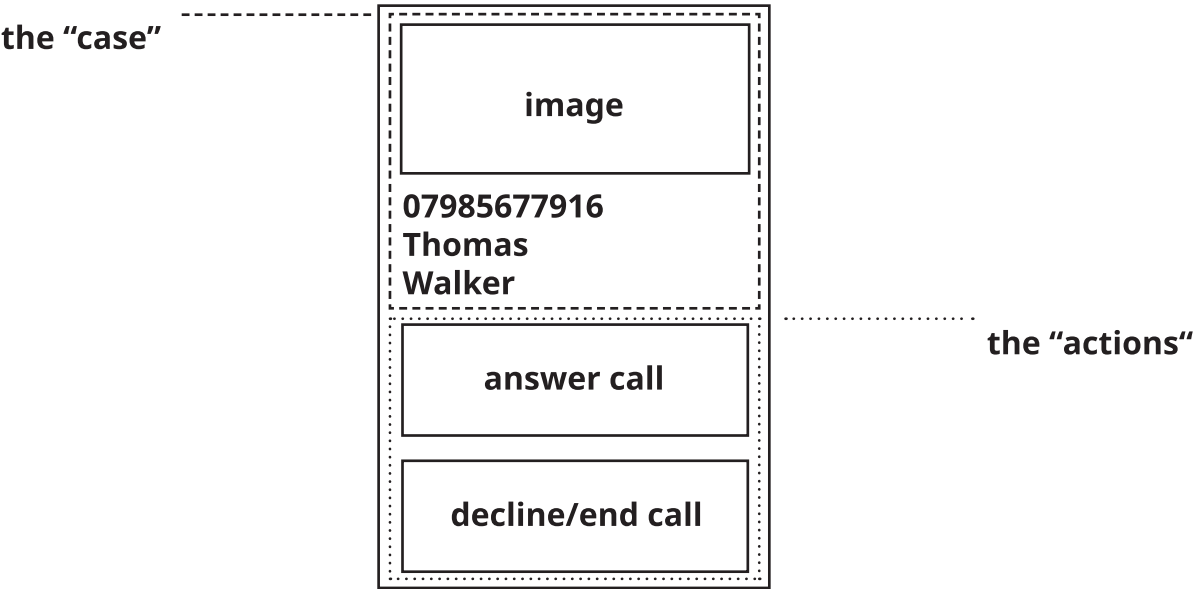
7) messages

1) presenting information on screen

About : presenting information on screen happens in the concept of **case** and **actions tiles**

- **case tile:** presenting information(images, text, numbers etc.)
- **actions tile:** minimum actions(options) necessary to deal with a given case.

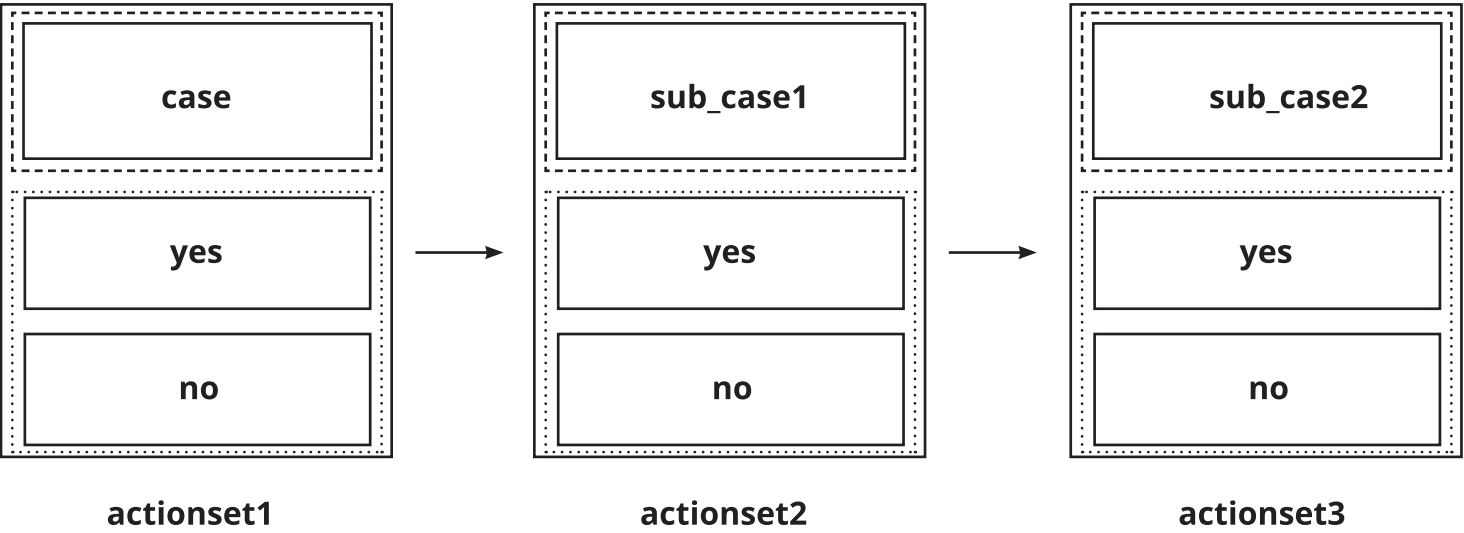
example:



2) the binary concept

- About :**
- Refers to the minimum necessary actions to deal in "absolute" with a given case.
 - Thus having a binary character (open-close, proceed or not, answer - decline, 0-1)
 - happens in the actions tile

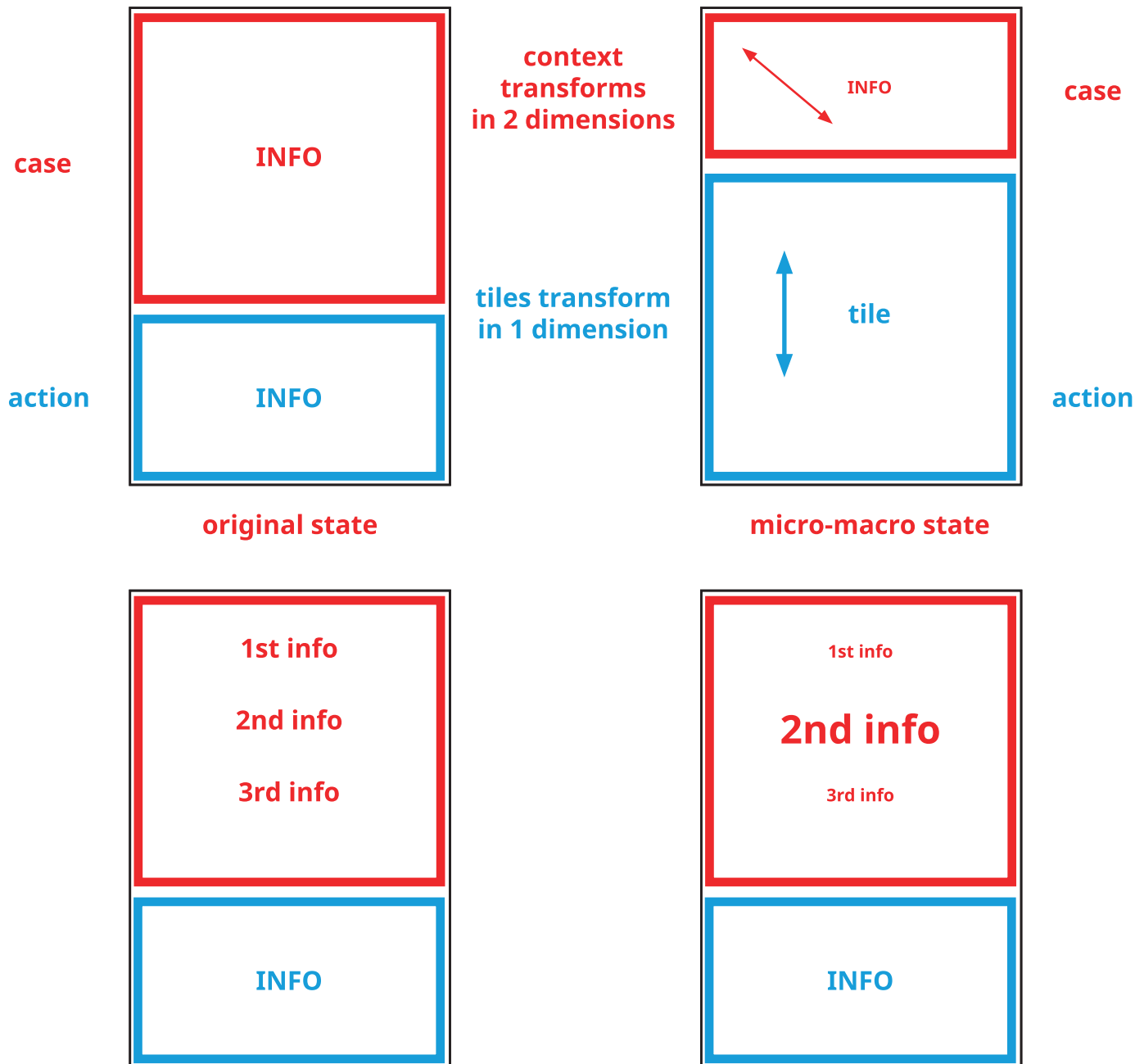
Usually to deal with a complex "case" taking into account the binary concept, user should go through a sequence of actionsets to reach to a final solution of a "case"



3) the micro-macro concept

About:

- The concept is about focussing at the important information at a given time. This is happening usually during scrolling
- how it works:



- tiles of "case-action" are transforming in one (1) dimension and information in two (2) dimensions.
- In specific cases the action tile can be minimized to a minimum and thus all the screen is taken by the case tile. This can happen in cases like browsing a list; scrolling
- specific actions bring forward(enlarging) the layer of the important information at a given time, while less important information are sent to background (decreasing font size).

3) the micro-macro concept

example:

Thomas Walker
07985677916

Gianna Wizz
07983315678

John Wocker
07983353981

Dietrich Wonn
07983353981

search contacts

add new number

W

Thomas Walker 07985677916
Gianna Wizz 07983315678
John Wocker 07983353981
Dietrich Wonn 07983353981
Johannes Wyrting 07987735423

X

Thomas Xalker 07985677916
Gianna Xizz 07983315678
John Xocker 07983353981
Dietrich Xonn 07983353981
Johannes Xyrting 07987735423

Y

Gianna Yizz 07983315678
John Yocker 07983353981

X

Thomas Xalker
07985677916

Gianna Xizz
07983315678

John Xocker
07983353981

Dietrich Xonn
07983353981

Johannes Xyrting
07987735423

search contacts
scroll

scroll
zoom out
select letter

scroll
zoom in
navigate and select
contact

observations :

- By pressing the “search contacts” the screen zooms out, the “action” buttons disappear and the application focuses to what is important: the letters of the names.
- The user selects the letter and the screen zooms in to the corresponding contacts of that letter.
- navigation and select contact.
- in case of idle time “action” buttons appear, returning to original state.

4) Guidelines

The guidelines in appearance and interaction with the app.

- The font that will be used throughout is “Roboto” the standard font for Android developed by Google.
- Experience:

The specifications of App Design are fully defined through the Material Design guidelines. (Button shading, Light-Bold font, colour palette etc.)

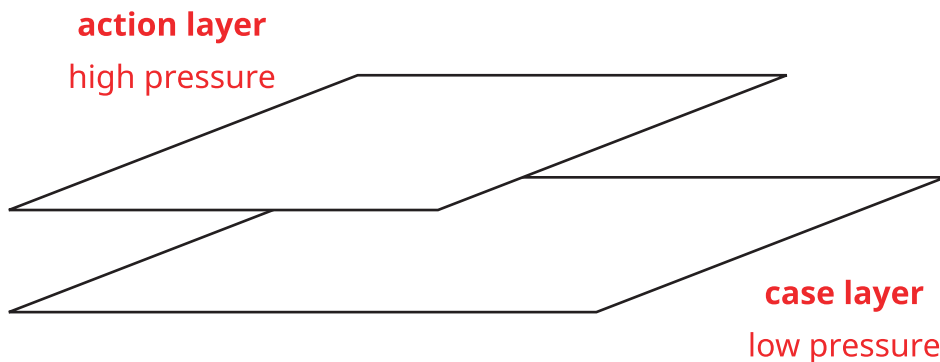
The design experience has to be escorted with features that will be combined together and augment the overall experience when using the app. These features are the following:

1) Sound

2) Pressure sensitivity

3) vibration

Sound and vibration(optional) enhance inform the user when a new “case” appears (eg new call) or when an action takes place (pressing a button).



That means that gestures that happen at the case layer eg. browsing contact list demand less pressure than gestures that take place in action layer. eg pressing the button for creating a new message. The background for this approach lies in observation of senior users to accidentally activate commands because of touch sensitivity.

5) Catalogue - browsing

browsing contacts in catalogue function

Thomas Walker
07985677916

Gianna Wizz
07983315678

John Wocker
07983353981

Dietrich Wonn
07983353981

search contacts

add new number

search contacts

W

Thomas Walker 07985677916
Gianna Wizz 07983315678
John Wocker 07983353981
Dietrich Wonn 07983353981
Johannes Wyrting 07987735423

X

Thomas Xalker 07985677916
Gianna Xizz 07983315678
John Xocker 07983353981
Dietrich Xonn 07983353981
Johannes Xyrting 07987735423

Y

Gianna Yizz 07983315678
John Yocker 07983353981

zoom out
select letter

X

Thomas Xalker
07985677916

Gianna Xizz
07983315678

John Xocker
07983353981

Dietrich Xonn
07983353981

Johannes Xyrting
07987735423

zoom in
navigate and select
contact

image

07985677916
Thomas
Xalker

make call

send message

selected contact
and actions

5) Catalogue - add contact

adding a new contact to catalogue.

Thomas Walker
07985677916

Gianna Wizz
07983315678

John Wocker
07983353981

Dietrich Wonn
07983353981

search contacts

add new number

add new number

W

Thomas Walker 07985677916
Gianna Wizz 07983315678
John Wocker 07983353981

Wockerfer

Dietrich Wonn 07983353981
Johannes Wyrting 07987735423

Surname Wockerfer

ABCDEFGHI
JKLMNOPQ
RSTUVWXYZ

next

zoom out
add surname

W

Thomas Walker 07985677916
Gianna Wizz 07983315678
John Wocker 07983353981

Jonathan Wockerfer

Dietrich Wonn 07983353981
Johannes Wyrting 07987735423

Name Jonathan

ABCDEFGHI
JKLMNOPQ
RSTUVWXYZ

next

add name

W

Thomas Walker 07985677916
Gianna Wizz 07983315678
John Wocker 07983353981

Jonathan Wockerfer

0798774524

Dietrich Wonn 07983353981
Johannes Wyrting 07987735423

Number

0798774524

0 1 2 3 4 5 6 7 8 9

ok

add number

W

Gianna Wizz
07983315678

John Wocker
07983353981

Jonathan Wockerfer
0798774524

Dietrich Wonn
07983353981

Johannes Wyrting
07987735423

end

comments :

- adding a number is a step by step process.
- Only necessary information are added as name and number. (More info could be add through settings)
- typing a new contact could automatically been observed appearing in contacts lists.
- new contact could be highlighted (graphical details will be presented in the future)

6) Calls

example:

image

07985677916
Thomas Walker

answer call

decline/end call

incoming calls

Thomas Walker
07985677916
Gianna Wizz
07983315678
Unknown
0798774524
Dietrich Wonn
07983353981
Johannes Wyrting
07987735423

browse by default
recent calls

Thomas Walker
07985677916
Gianna Wizz
07983315678
Unknown
0798774524
Dietrich Wonn
07983353981
Johannes Wyrting
08384623764
Thomas Walker
07985677916
Gianna Wizz
07983315678

call back

save number

select and focus call

W
Thomas Walker 07985677916
Gianna Wizz 07983315678
John Wocker 07983353981
Wockerfer
0798774524
Dietrich Wonn 07983353981
Johannes Wyrting 07987735423

Surname Wockerfer

ABCDEFGHI
JKLMNOPQ
RSTUVWXYZ

next

add surname

W
Thomas Walker 07985677916
Gianna Wizz 07983315678
John Wocker 07983353981
Jonathan Wockerfer
0798774524
Dietrich Wonn 07983353981
Johannes Wyrting 07987735423

Name Jonathan

ABCDEFGHI
JKLMNOPQ
RSTUVWXYZ

next

add name

Thomas Walker
07985677916
Gianna Wizz
07983315678
Unknown
0798774524
Dietrich Wonn
07983353981
Johannes Wyrting
07987735423

end

observations :

- By pressing the “search contacts” the screen zooms outs, the “action” buttons dissapear and the appli-
cation focuses to what is important: the letters of the names.
- The user selects the letter and the screens zooms in to the corresponding contacts of that letter.
- navigation and select contact.
- in case of iddle time “action” buttons appear, returning to original state.

7) Messages

example: Navigating existing conversations

Thomas Walker
"Hello there! how ar..."

Gianna Wizz
"Family gathering..."

John Wocker
"Your examinations..."

Dietrich Wonn
"Old friend! how is..."

send message

Jonathan Wockerfer
"Ich bin ein Berliner..."

Thomas Walker
"Hello there! how ar..."

Gianna Wizz
"Family gathering..."

John Wocker
"Your examinations..."

Dietrich Wonn
"Old friend! how is..."

browse inbox

Jonathan Wockerfer
"Ich bin ein Berliner
said John Kenedy back
then."

answer

delete

answering message

Jonathan Wockerfer
"Ich bin ein Berliner said..."

beautiful Berlin!

ABCDEFGHIJKLMNOPQRSTUVWXYZ

send message

typing & sending

Jonathan Wockerfer
where are you
Johny?

"Ich bin ein Berliner
said John Kenedy back
then."

beautiful Berlin!

back to conversations

new message

viewing

observatons :

- The home messaging screen is "conversations" by default. User has two options 1) either navigate conversations or 2) send a new message.
- This example shows navigating conversation. By browsing the "send button" dissapears.
- selecting message and answering it

7) Messages

example: sending new contact through contacts

Thomas Walker
"Hello there! how ar..."

Gianna Wizz
"Family gathering..."

John Wocker
"Your examinations..."

Dietrich Wonn
"Old friend! how is..."

send message

send new message

W
Thomas Walker 07985677916
Gianna Wizz 07983315678
John Wocker 07983353981
Dietrich Wonn 07983353981
Johannes Wyrting 07987735423

X
Thomas Xalker 07985677916
Gianna Xizz 07983315678
John Xocker 07983353981
Dietrich Xonn 07983353981
Johannes Xyrting 07987735423

Y
Gianna Yizz 07983315678
John Yocker 07983353981

to whom you will
send your message

contacts navigation

W
Gianna Wizz
07983315678

John Wocker
07983353981

Jonathan Wockerfer
07987745241

Dietrich Wonn
07983353981

select

selecting recipient

Jonathan Wockerfer
07987745241

where are you
Johny?

ABCDEFGHI
JKLMNOPQ
RSTUVWXYZ

send message

typing & sending

Jonathan Wockerfer

where are you
Johny?

back to conversations

new message

viewing

observatons & findings :

- sending a new message.
- selecting a contact through catalogue
- typing and sending the message