

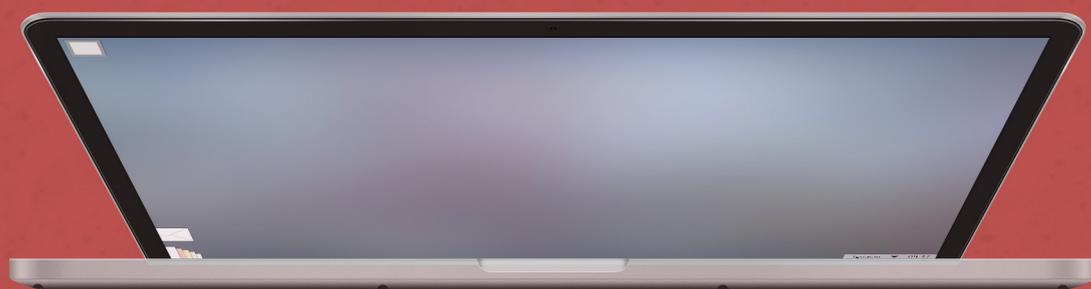
DE0973

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Personal Project 01

Future Media and

Communication



**“ “ If you talk to a man
in a language he
understands, that
goes to his head.
If you talk to him in
his language, that
goes to his heart.**

– Nelson Mandela

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intro duction

Introduction

As a student I spend quite a bit of time in the library, which has allowed me to be constantly observing without sometimes even realising. This university, known by the ethnic diversity of its students, has given me the opportunity to realise that a behavioural pattern is repeated among us, regardless of our origin.

During my first month of university, when observing other students at the library, I have realised that we carry many work tools with us. Especially, when we are at the library we use a huge range of devices that we end spreading all over the table, such as pens, notebooks, agendas, books, laptops and tablets. The same pattern is repeated regardless of what we are studying.

One of the most interesting things I have realised of is the way in which people interact with different devices to perform the same task, for example, how we use our smartphone as a calculator while we are entering data on the computer. This has made me realise that depending on the task that we are doing, we feel more comfortable using in some devices or others.

This observation has made me wonder how we will work in the future, maybe we will continue taking so many objects with us or another option is that we will concentrate everything in large digital mixing desks.

01

What is the
of our work

the future workspaces?



5 PEOPLE IMAGINE OBJECTS TILTED AND AT A SLIGHT ANGLE ABOVE



FIGURE 5.1 PEOPLE IMAGINE OBJECTS TILTED AND AT A SLIGHT ANGLE ABOVE



early research

Early research

In order to avoid falling on speculation during the process of research, I established a limit of five years, for the possible development of the advanced technology. Once established this limit, I started investigating from the basis that offices use big digital tables for meetings and for daily work, and therefore avoiding the use of less efficient computers. From that idea, I started researching and discovered the concepts of life Microsoft has for the future.

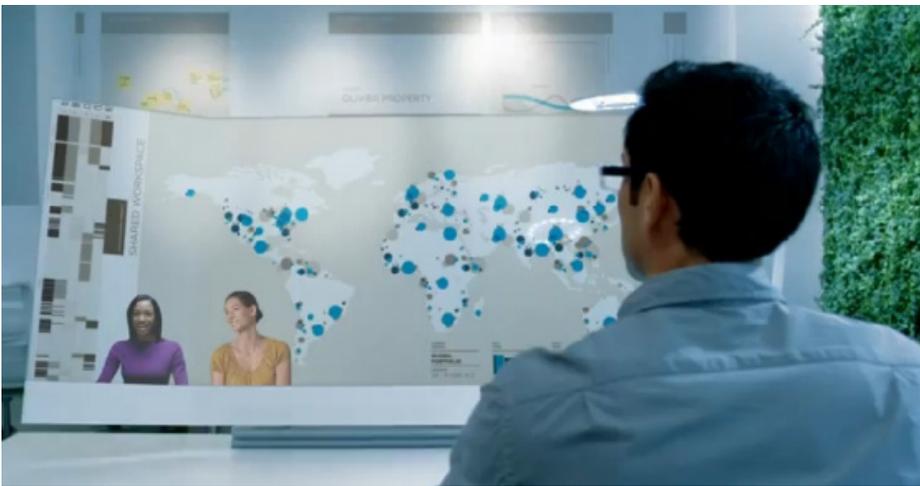
In that concept 1 Microsoft suggests for 2020 a concept of home and office of the future, where the interactions are carried out over a translucent crystal surface that recognise the gestures and devices that are placed on top, like a cup of coffee, providing useful information to the user. According to what is seen in the concept, the interactions could also be carried out In-Air Gestures. This concept left me astonished but it's not a realistic approach in 5 years' time due to its complexity, so I looked for something similar that was already developed and I discovered the interactive tables.

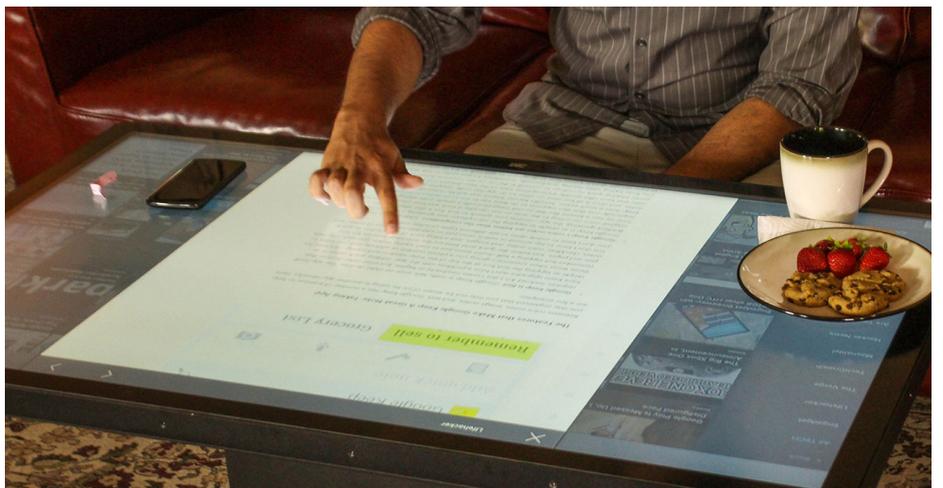
Usually this table works with Windows 7, 8 but it even Works with Android of OS as the base. All of this interaction it's developed over a crystal that they build over a LCD flat panel that recognises between 50 and 60 gesture points and they can even carry out a physical object recognition task, but this depends on the type of model. These applications are designed to function as "360° multi-user", therefore allowing teamwork.

Its interface is based on the principles from the Natural User Interface which are based on doing. Users interact with the device or platform to achieve results, ideally enjoying the actual interaction as much as the accomplishment itself. The interaction feels fluid, direct, and organic. Gestures especially tools are important assets in this type of interface. Specifically there are two remarkable types of models for being the most developed and functional. These are the Microsoft/Samsung SUR40 with Pixel Sense Technology and the Idem + Gesture Works Platform. They are available from 40" and 50", and its weight with the legs included is more or less of 50kg (110lbs).

02

First glance





research plan

Main questions

After exploring what is being developed in this contemporary society, I established a set of questions during the phase of research that should be answered so I can familiarize with the audience according to this research.

01st Who and how is my audience?

02nd Similarities and differences between them.

03rd What values and goals do people have?

04th How are these goals embedded in a larger ecology?

03

Research plan

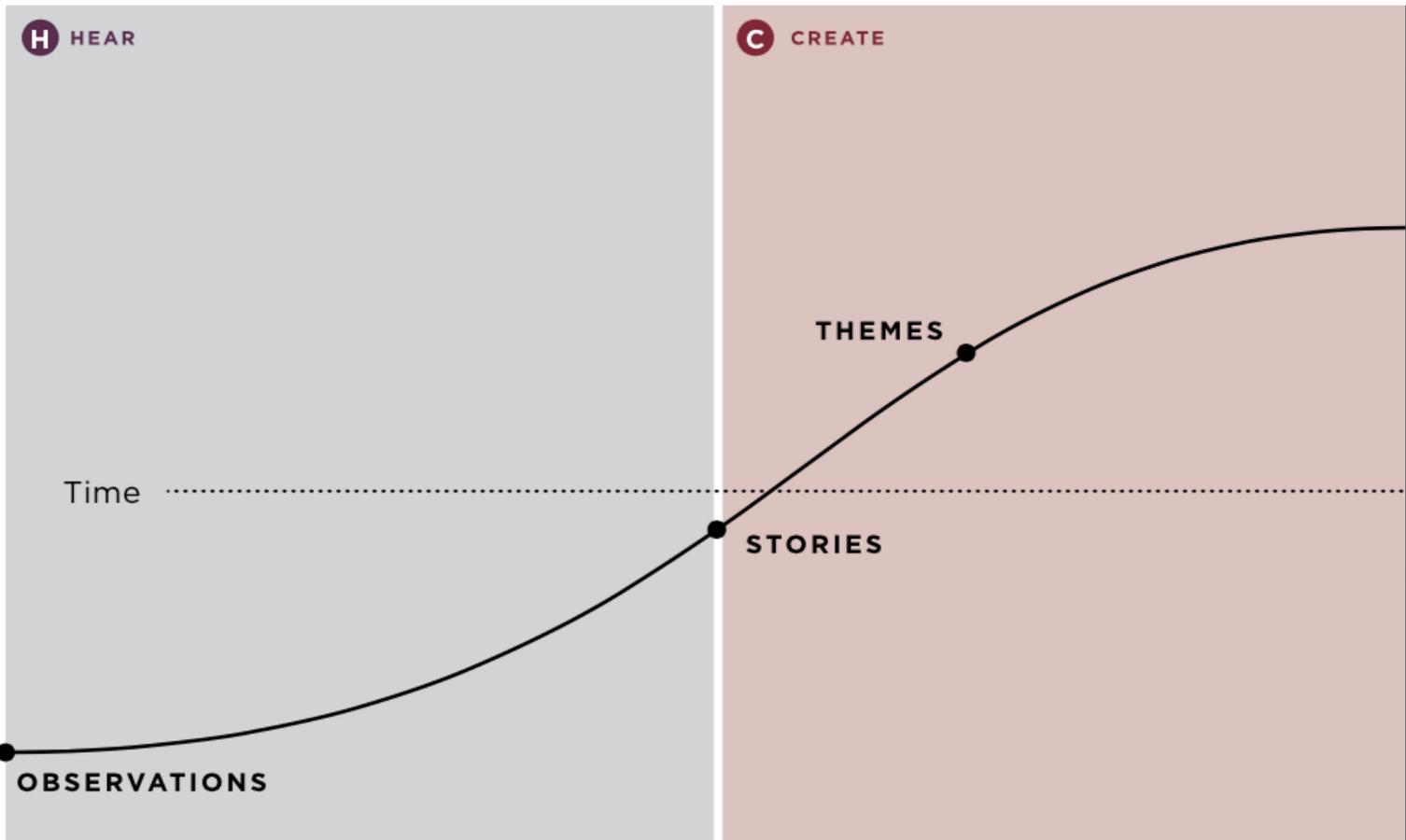
The way to answer the questions suggested earlier and therefore discover the audience that uses commonly interactive devices, is by carrying out an open survey, asking about the habit, the way and the places of work of people in general

After discovering the audience needed for this research, two experts of the field and a novice will be interviewed, in order to get concrete feedback about the real way people work and to see if the differences between experts and novices affect the experience and age.

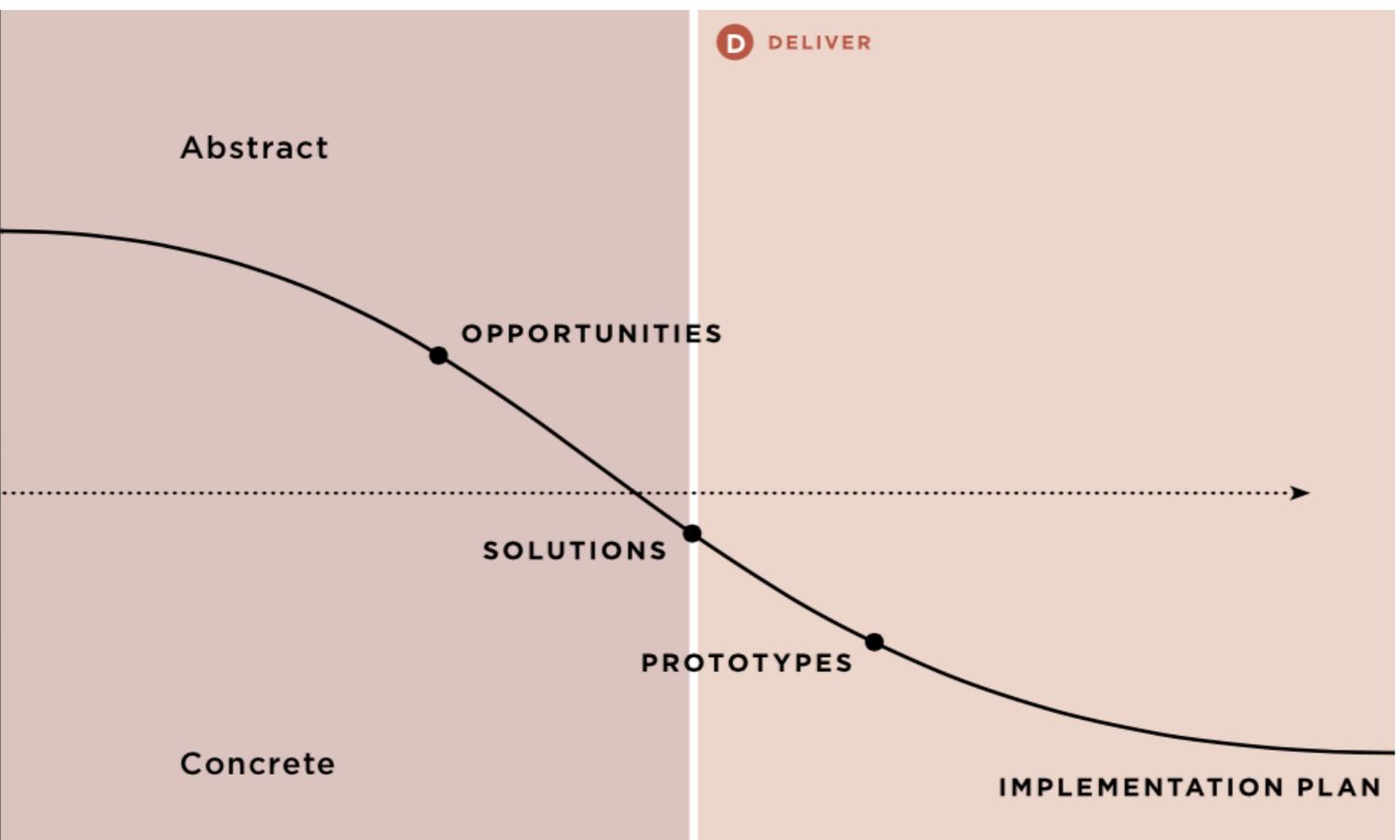
Once the feedback is obtained from the interviews, participant observation sessions will be carried out to check the feedback received in the interviews. Once all the feedback is collected, the opportunities offered by the project will be analysed to establish

some design goals and propose several solutions for the problem, choosing from those one that is definitive and elaborating a prototype.

This research is established after receiving feedback of the tutors' project, and although it will indicate the way to carry out the research during the project, it can vary along its development.



The process followed during the process of research is the IDEO's HCI Toolkit, illustrated in the image



audience research

Audience research

This research begins with the survey in order to identify the profiles of the workers who could easily adapt to use tools or a workflow based on technology. So many questions were addressed about demographic, habits, and specific preferences to provide the needed information.

Survey Responses

Which age group describes you best?

- 18 - 24 (6 / 46%)
- 25 - 34 (5 / 38%)
- 45 - 54 (1 / 8%)
- 55 - 64 (1 / 8%)

Which industry sector describes best your work?

- Media / Entertainment / Creative (8 / 62%)
- Government (2/15%)
- Consulting / Accounting / Business Services (2 / 15%)
- Consumer Products / Retail / Manufacturing (1 / 8%)

What part of your job do you perform the best?

- I am good at conceptualising a project... (8 / 25%)
- I can do everyday tasks efficiently (6 / 19%)
- I am great at brainstorming new ideas (6 / 19%)
- I am good at collaborating with coworkers (5 / 16%)
- I am great at talking with clients (5 / 16%)
- I am great at research tasks (2 / 6%)

Which activities are important to you?

- Individual desk based work (11 / 42%)
- Client meetings (7 / 27%)
- Internal meetings (6 / 23%)
- Telephone conversations (1 / 4%)
- Other (1 / 4%)

Overall, how comfortable do you find your work environment?

- Quite comfortable (7 / 54%)
- Moderately comfortable (3 / 23%)
- Extremely comfortable (2 / 15%)
- Slightly comfortable (1 / 8%)

04

Overall, how tidy do you find your work environment?

- Moderately tidy (5 / 38%)
- Quite tidy (4 / 31%)
- Extremely tidy (3 / 23%)
- Order, what's that? (1 / 8%)

Rate in order of importance to you in your work environment

- Privacy (3.15)
- Workspace personalisation (3.54)
- Noise control (3.85)
- Ergonomic furniture (3.92)
- Connectivity (4.00)
- Interactive systems (4.54)
- Air quality (6.46)
- Artificial lightning (6.54)

Do you use any interactive device in your daily activity?

- Yes (12 / 92%) (Laptop x 11 / Tablet x 9)
- No (1 / 8%)

Do you use any app in order to enhance your productivity/organisational skills?

- No (11 / 82%)
- Yes, an organisational app (1/8%)
- Yes, both (1/8%)

Are you worried about your workflow and how to improve it?

- Yes (7 / 54%)
- Not really (6 / 46%)

While you are working, how many times do you check your social networks?

Facebook	3	5	2	2	1
Twitter	10	1	1	1	0
LinkedIn	10	2	0	0	1
Mail	1	3	1	2	6
Productivity	5	4	3	1	0
Other	6	5	1	1	0
Times	0 / 1-3 / 4-5 / 6-7 / 8-10				

First Conclusion

After analyzing the data obtained from the survey about fourteen answers, most of the interviewed are under 34 years of age and work or study in Media / Entertainment and in the creative sector. So always according to the data, these workers profiles feel comfortable conceptualizing ideas, working group and interacting with clients, as well as their tasks are based on the desktop work

As it turns out from the survey, the users are concerned about their privacy and getting their work space customized, as well as other environmental and ergonomic aspects but the concern about interactive systems is in sixth position. Most of users surveyed use laptops and tablets for doing their tasks, besides they say they are concerned about improve their work performance.

According these results it can be said that the users who work in this sector are closer to the technology.

Mini Workshop

In order to know how the user's working spaces are it has been asked for six of them from the researched sector through the Survey to show their workspaces.

I received photos of the work spaces of two workers in the field, (Dr. Joyce Yee ' 1 ', Jonathan Kutnowsky ' 2 ') and three students (Shu Man & Chi Jang ' 3 ', Scott Smith ' 4 '). They all are from different nationalities and the same pattern is repeated among them, the laptop is their work center.

They all also share their work space, but only Joyce and Jonathan have their own desk for working but they do their tasks in different ways. Jonathan works as Front-end Developer and his work is made 100% on the computer, while Joyce works as Senior Lecturer and Program Leader so she has to deal with more responsibilities and her work is focused on BA organization, having contact with the students and supervising them as well as carrying out research tasks.

The students, not having their own desks, use to establish their work place where they feel more comfortable. Samantha and Mabel chose the cafeteria of the library for being in company and listening to the environment sound. Scott however prefers the tranquillity of the study.

Therefore, I think that mobility is something very important for workers in this sector, since it enables them to establish their workplace where they feel comfortable.



04

Interviews

There were planned three interviews with professionals from this sector in order to learn about the details on day-to-day basis and their way of work. The main goal was to know how their daily routine depended on technology, what tools they use for working and their habits. For this purpose I established fifteen questions plus an icebreaker question too, they were the following:

1. How are you?
2. What is your role at _____?
3. Apart of your job at _____, do you work somewhere else?.
4. How do you manage to commit with those roles?.
5. Do you set daily goals / tasks?
6. How do you manage with them?.
7. How do you consider as a failed day? And a succesful?
8. How do you check your own progress?
9. Usually, where do you work most comfortable?
10. What type of software do you use for working?
11. When you are working on creative things, do you use any combination of software at the same time?.
12. Tell me about 3 physical tools you usually carry with. (Iphone, ipad and you're laptop are not allowed)
13. To what extent are those tools helping to succeed in your tasks?
14. Are you forgetful? Tell me about a work tool forgotten by you at home or at work this week.
15. When you come up with an a idea, how do you conceptualise it?.
16. If you had to change something of your workspace or workflow, what would you change?

As each interview lasted twenty minutes, I decided to write a summary of the questions that provide information for my research.

Interview 1:

**Mr Jamie Steane,
Head of Visual Communication and Interactive
Media Design. Northumbria.**

3. "...My role is divided in three different areas I teach...I also set up partnerships with companies or institutions and I do design research...".
4. "...I'd like to say I divide the tasks by day... so normaly by day but also by the time schudule (deadlines) of the task..."
5. "...I organise my day so I am doing my thinking work in the morning and my doing work in the afternoon..."
7. "...A failed day for me would me where I haven't organised my time properly to be very effective... and a successful day is where I feel I've achieved learn more or do something new or better than I've done before..."
9. "...That's really interesting question.If I share an office with people I quite ready to talk so however being in a ready instalation is no always the best. I quite like being in a busy place which is quiet so a place like, this (Lipman Cafe) that's ok for doing some work because I like to see how things are going on. I like to see life around without necessary interacting with those people...."
10. "...It depends on the task...actually more recently I've started to use a tablet to draw with... I use Bamboo Paper or Paper by 53 (for iPad)...I **also use things like Evernote for writing notes because that appears on my computer and that's really good...**"
12. "...I carry with all of those and also I carry with my stylus, that's quite important...I always carry with a paper pad...and occasionally I carry with an stencil for wireframes..."
16. "If I could make one big change it would be to work with a large monitor..."

Interview 2:

**Dr Joyce Yee,
Senior Lecturer and Programme Leader for BA
Interactive Media Design. Northumbria.**

3. "...This is my full time job. Sometime i do some graphic design work and some interaction design work but on very rare occassions..."
4. "...With difficulty I guess... Part of my role is not just teaching but also part my rol is also I mean I to do a lot of research arround some specific topics and that, sometimes, includes going out to interviewing people and work on a number of research projects as well which I have to compare case studies..."
5. "...I have weekly tasks or deadlines and I manage with those deadlines sticking notes on my laptop and I cross them off when I done them..."
7. "...A failed day for me is a day when I have lots of meetings and i can't do to much...when I haven't had to much time to progress on... and a succesful day would be that I have good season with the students, you know they respond well they show more progress than I have expected..."
8. "...**With a combination of post it notes, mentally and my digital calendar...**"
9. "...**I don't really have a preference in terms of where I work I think its depends on the kind of task of I need to do...**"
11. "...I guess yess, when it's comming up with ideas or reaserching on ideas then **could be useful looking at books, looking at websites, doing some research, reading some papers and then sketching something on my sketchbook...**The most I do is kind of wireframes, I don't sketch very much..."

Interview 3:

**Mr Jonathan Kutnowski,
Front-end Developer / Designer at Blinkfire
Analytics, Inc**

3. "...Besides my job in the company, I have worked as freelance, but since I work in Blinkfire (1 year), I have less work as a freelance..."
4. "...I try to achieve my daily goals during office time but I almost never got the work done so I end up doing some work at home..."
5. "...Yes but, because we have a progress checker at the company and we use it to measure the time taken in each project and in each stages that have been achieved..."
10. "... Before now I have used all kinds of programs, even video editing, but now my work is more specialized so I only use Sublime text and Photoshop... Of course, I use two screens..."
12. "...A notebook for taking notes and sketching, my case and the iPhone's chager...I am always out of battery..."
- 14 "... I am not forgetful, I am disorganised. While at work I am very organized, the code with I work is always clean and tidy, but in my day to day I am not so..."
16. "...An iMac plugged to an external screen would do well to me. I use my laptop plugged to another screen and, truly, sometimes it is uncomfortable..."

04

Conclusion

The main conclusion from the analysis of the interviews is that, although each interviewed belongs to the same field, they have v different ways to work. Fortunately the collaboration of these three different profiles helps to understand that each person has a different way to organize.

The three users share the preference for different places to work depending on the task to be completed, which gives value and meaning to the mobility of portable devices. But the higher mobility of the device, the lower screen size, which involves a problem for work efficiency, since all the interviewed answered “they would use a bigger screen”.

Users value as well the characteristics of devices synchronization, as Jamie said about Evernote “I also use things like Evernote for writing notes because that appears on my computer and that’s really good...” The main problem about it is that it is available in some applications.

Furthermore I have checked out that all the users profiles are still tied to the traditional writing and wire framing techniques, despite one of them (Jamie) carries a Tablet daily and he is stopping the paper use, the rest of them are still using pen and paper, including Jamie.

Finally, I state that, in opposition to my thoughts when I developed my observational research, I think that the immediate future of workspaces is not related to big interactive tables, but with connectivity of our devices.

The research 1 of Microsoft describes the period we are living in as “The mobility era: Several computers per user”, since nowadays each user interacts with several computer systems simultaneously. Thus, after this audience research, I think that the solution deals with the improvement of connectivity of every device to enhance the workflow.

Personas



Tylor Hunter (24 años)

Tylor works as a Designer for a short period. After his college graduation he was hired in an application development company in Sunderland, close to his hometown in Newcastle upon Tyne. Since that moment he moves daily to his new job by train, and during the trip he uses the time to review his daily tasks in his paper agenda and to check his emails in his Tablet.

Tylor has a last generation laptop and he is very comfortable working on it. He uses the same device at work plugging it to an external screen, but he aspires to be provided with a desktop PC to work more comfortably.

During lunchtime he takes his laptop to the cafeteria and he still works in a more relaxed environment. He likes to work in different places to see what happens around him. That helps him to concentrate when he has a lot of mechanical work to do.

Expectations: Trying new experiences, such as drawing in the iPad.

Frustrations: Taking work to home.



Charlotte Turner (33 años)

Charlotte is the Head of the Media department of an important IT company. She has a lot of duties in her work, such as the teamwork organization. Besides her work, she participates in several research projects with many meetings per month, but she mostly works by email from home.

Charlotte always carries her iPad, since it is the most used tool in her meetings, she checks her emails, she writes down and she even writes reports on her iPad. She does her hard work from her desktop computer in the office in such a way that she retrieves her files from iCloud when she wants to use her iPad and keep working. She prefers to work in quiet places and not to be disturbed, thus working at home is one of her preferences.

Expectations: Obtaining the best connectivity of all her devices.

Expectations: Raise her productivity.

Frustrations: Being left without Internet.

idea & aims

Idea and aims

When investigating and defining my audience, I realized that one of the best ways to deal with all the needs of my users could be a cloud-based operating system, accessible through the devices where it is installed, where the installed applications could be used like the web-apps supported by the OS to remove the web-apps limitations and to access to applications and files in any device in the same point it was left in the earlier.

Furthermore I established some aims for the project:

01st Develop a new way of interaction with our devices through an operating system

02nd Achieve a raise of productivity and mobility

03rd Stay in touch with my audience in order to ensure the success of the project

tech research

Technology research

Once the idea was focused, I started a research of the technology that could be involved in the development of my OS concept, including an analysis of the potential competitors.

Desktop metaphor

The first thing I observed in my analysis was that every computer OS are based in the desktop metaphor. This metaphor is one of the most important implementations that has been made in the history of the GUI from a HCI (Human Computer Interaction) point of view, since thanks to the relationship of interface elements with office elements, users learned to use an interaction system that was unknown at that moment.

This metaphor was seen for the first time in 1981 in the Xerox Star (one of the first personal computer prototypes) and finally defined in 1984 in the Apple Macintosh, the responsible for the first GUI (Graphical User Interface) because at that moment it was only known the WIMP (Window, Icon, Menu and Pointing Device).

During the research, I have confirmed that this metaphor has not been modified since then, but it has been improved in many aspects by adding attributes like the direct manipulation of the interface elements, the interface colour, the dock... but the basis of the interaction remains the same since 1984 with the office environment and the windows navigation.

Within the last years some attempts to modify it with the post-desktop models have been developed. The post-desktop models try to modify the desktop metaphor but preserving some of its principal characteristics. An example of a post-desktop model is the Windows 8, which tries to base part of the OS in its Windows Mobile version. In my opinion, the problem of the Windows 8 is that it does not present a full interaction model.

Nielsen resumes the Windows 8 analysis as it follows: "Hidden features, reduced discoverability, cognitive overhead from dual environments, and reduced power from a single-window UI and low information density."

06

The cognitive overhead that Nielsen mentions is produced due to users have mental models based on earlier experiences or the knowledge that they think they have about the system they are about to interact with; thus, when a user wants to use a computer, he/she expects to find the desktop metaphor as a regular basis, since it is the way he/she has learned to interact with this device. When two different ways of interaction coexist in a unique OS, the user gets frustrated because he/she does not understand the reason to cope with both of them.

An aspect in favor of Windows 8 is that one of the ways to learn is the expert users' imitation, thus systems based on direct manipulation (such as Windows Phone and all the mobile devices) are easier to learn. The problem with Windows 8 is that this interaction is conducted through the mouse and includes gestures for touch screens but Windows 8 is installed in some devices that lack of touch screen. So I believe that Windows 8 is designed to be used on tablets and desktop computers but remaining the same gestures for both platforms regardless the input method used.

Cloud based OS

Analysing the cloud-based operating systems, the closest one to my idea is Chrome OS, being this system a basis of my concept.

Chrome OS replaces the concept of the browser by the concept of operating system always connected and dependent on the internet. This allows Chrome OS to create a computer which does not need to be updated, also allows you to access your files anywhere, from other devices through the platform Google Drive and to obtain access to applications developed for Chrome browser.

Ultimately the system provides a web-based system for working but this type of installable and cloud-based operating system involves a problem, since the absence of internet limits its use almost to an eighty per cent.

I have checked out other operating systems: Zero PC, Joli Cloud, ISpaces and Cloudo. It should be mentioned two of them: Zero PC offers the possibility to access the operating system through an APP for iOs, Android devices, even an extension for Chrome; the other one is Joli Cloud OS that can be installed like Chrome OS offering up to 15000 webapps which can be accessed from the operating system.

Input methods

Since the adoption of the mouse by Xerox Alto (Invented previously by Engelbart and English) it was introduced in all desktop operating systems, allowing users to navigate the interface in two dimensions interacting with the elements through the following gestures: Single-click, double-click, triple-click, right-click, left-click, Middle-click, Drag, Button Chording...

Over time the mouse as we knew it has been replaced by "Touchpad" which acts as a flat surface that detects the finger's touch by its surface, moving the cursor in this way. The development of touchpad has allowed the use of functions as recognition of gestures in its area of action. A few gestures that would be extended later with the development of multi-touch screen devices.

Fortunately a whole range of functions based new gestures were developed, so many of them have been adapted to desktop computer but even so the mouse pointer has been kept as input method, because some studies show that interfaces based on gestures can increase the learning curve within the interface.

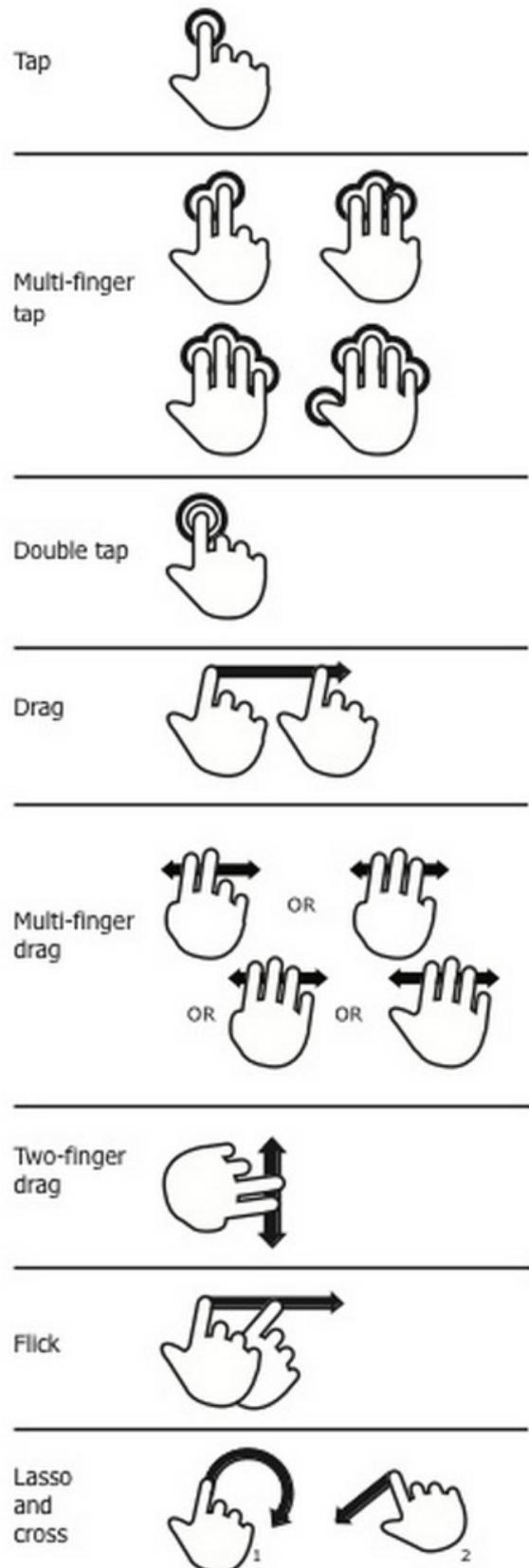
Gestures as input method also have been developed in concepts “in-air”, such the game consoles Xbox Kinect or other more related to those which are involved with my research like the prototype developed by the researcher at the MIT Pranav Mistry known as Sixth Sense, who through a small web cam, a small projector, and colored rubber bands in the user’s fingers projected a interface on any surface that enabled him the interaction through gestures.

Stuff from fiction

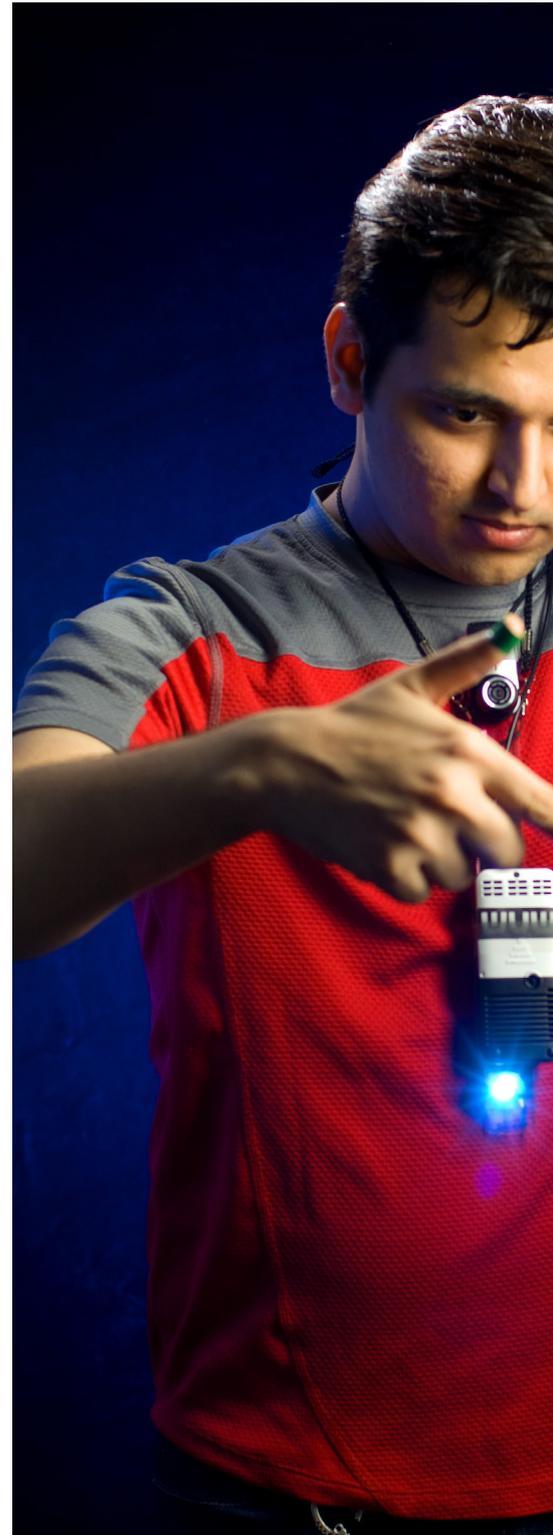
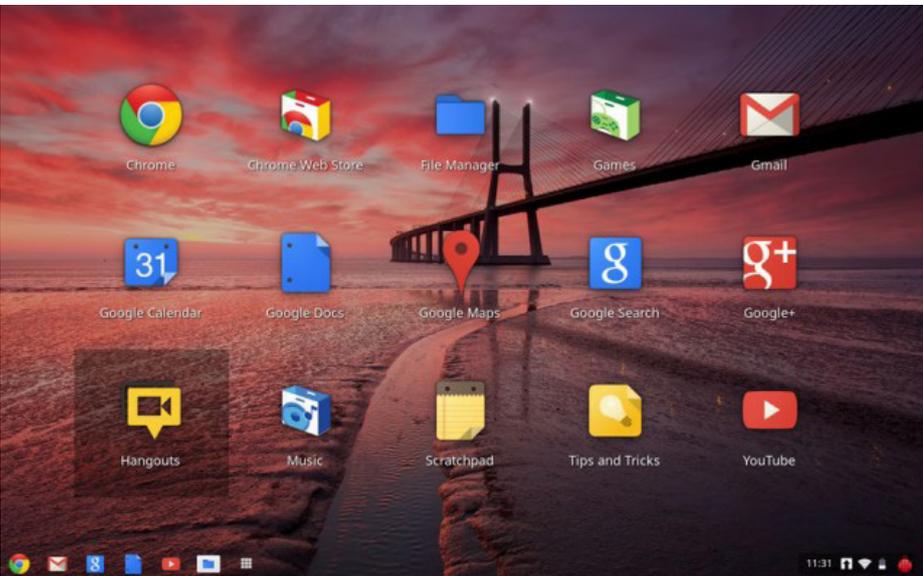
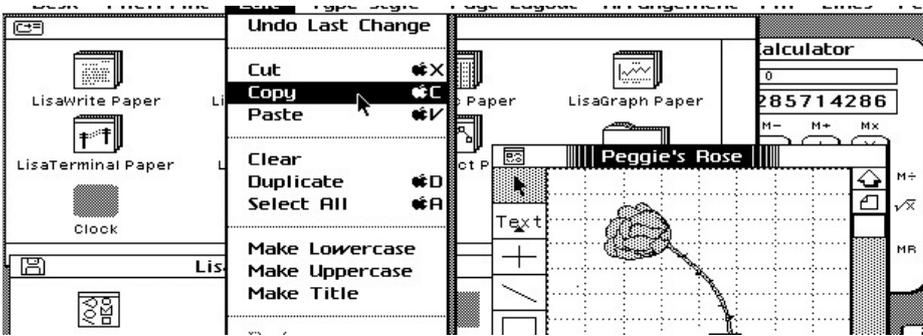
I have observed some interesting concepts in the cinema, either by its aesthetic or its way to resolve the distribution of the interface. The most important is the concept of interface designed by the graphic Geoff Mc Fetridge encoded in Spike Jonze for the movie “HER” .

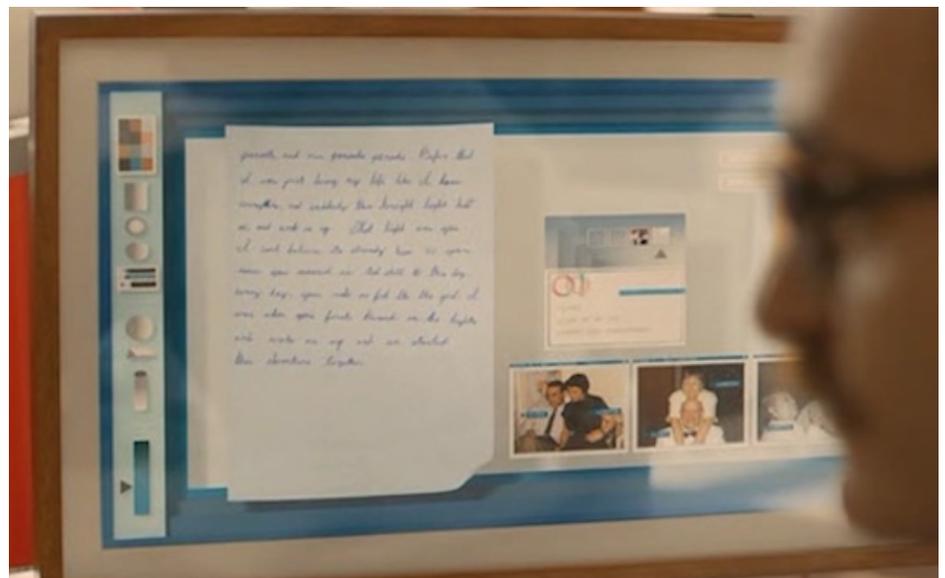
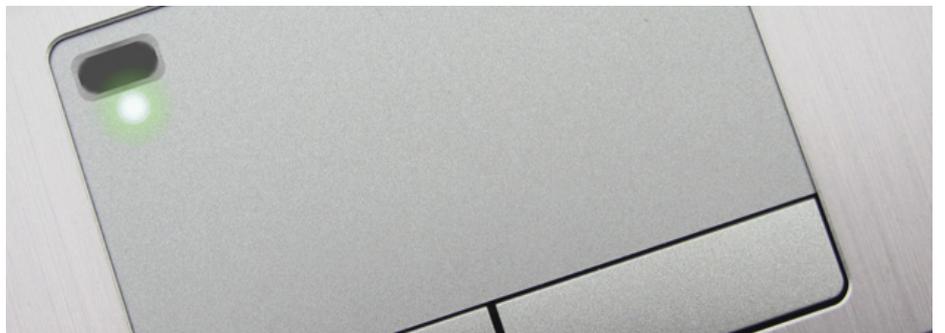
In that concept they show a desktop interface supplemented by a mobile one, so the interactions are made in two ways; on the desktop you could interact from gestures on the touchpad and also with your voice through an artificial intelligence assistant, then in the mobile interface you would interact with the touchscreen and also with its assistant’s voice. The remarkable aesthetic of this interface comes from the presence of shadows, blurs and the windows

Another inspiring element that I have observed in films is the color palettes of the films directed by Wes Anderson, the colour is used for creating nice contrasts. The film “Her” has a very interesting color palette too.



Technology Moodboard





07

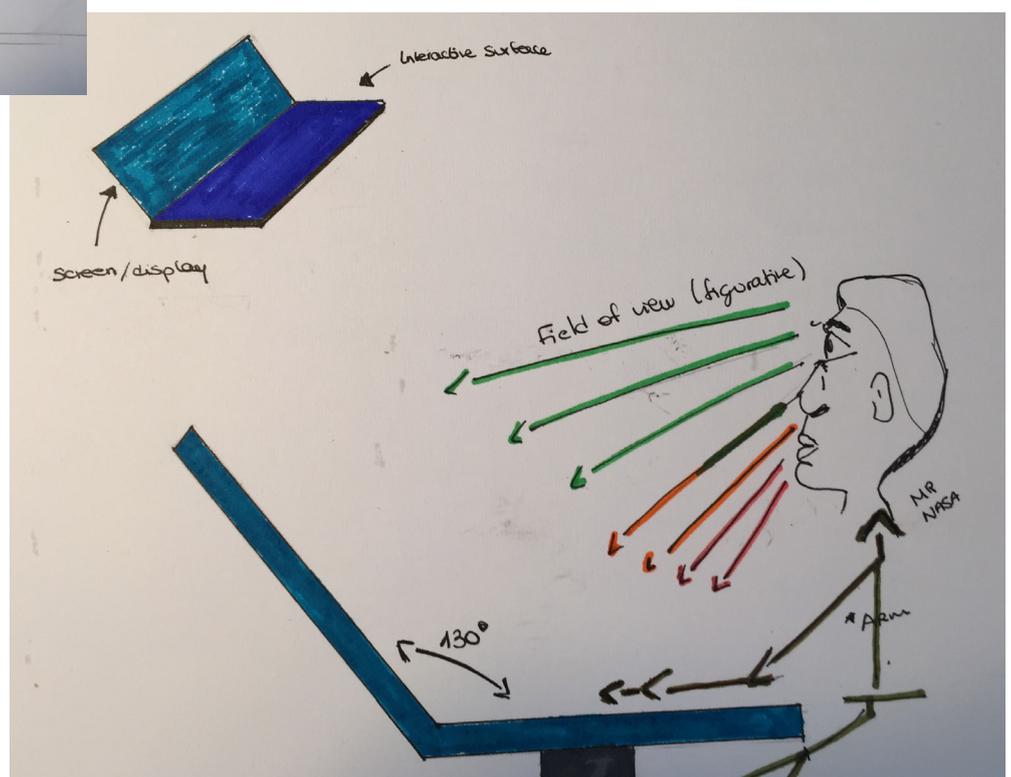
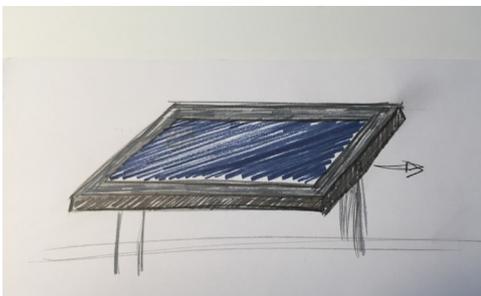
concepts

Concept 1

My first concept is based on the early research conducted at the beginning of the project. Without knowing about my audience my thought was that could be useful to transform our workspaces into big digital tables.

The design of this concept was developed considering the big LCD screens utilised by Microsoft and Ideum in their interactive tables showed in the first mood board.

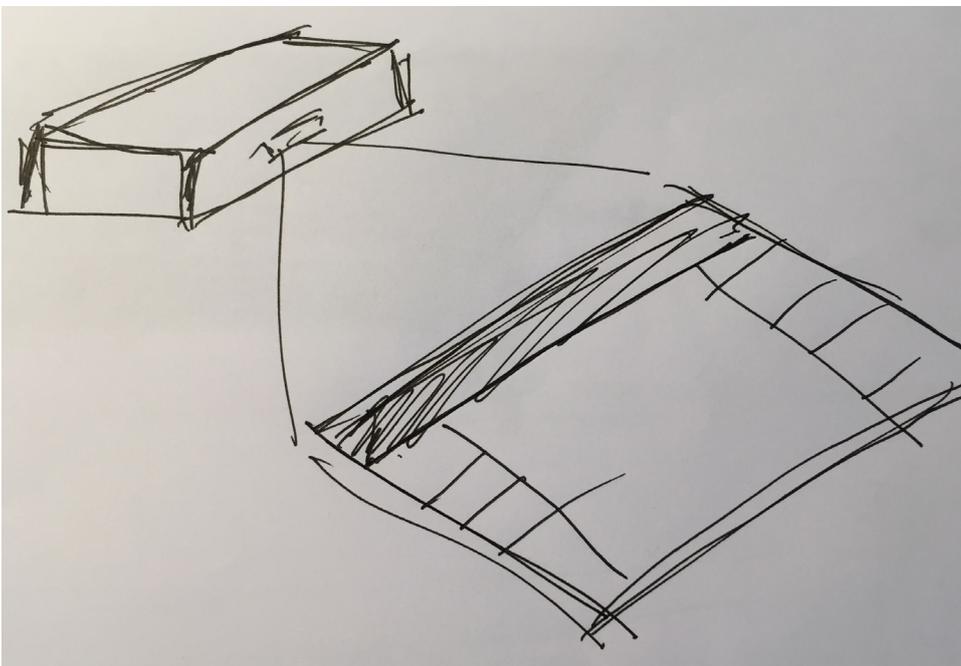
Dismissed due to survey.



Concept 2

The design of this concept was developed with the target of creating a device enabling its usage in any desirable place; the projection of the interface among any kind of table, allows the user to work on the projected interface.

After reviewing the conducted interviews among professionals belonging to the industry, the concept was dismissed due to a lack of useful characteristics regarding the working routines. The candidates applied to their technological affliction in terms of recommendable, however not dependable.



Concept 3 - Chosen

This third concept is based on the gained feedback from the audience research and the after technological research. It aims for the operating system based on the cloud, which will allow the users to enter their records and complete software from any random computer or tablet.

Starting from the basic idea that the operating systems such as Chrome, OS or Joli Cloud allow the access to websites and apps, being the actual operating systems the “linking door”, I propose to go further into the topic. Establishing and hosting, in a nearby future, the software in the same server to permit the access to our “desktops” from anywhere we desire. Thus, we could avoid long unpleasant synchronising process between electronic devices. Given these points, “a validated operating system for any electronic device”.

As a matter of fact, this concept would also work with tablets and desktops starting by Apple’s principle of “continuity”. I assumed that, to bring this further away, it could be beneficial to habilitate the “screen sharing” between devices using the same operating system and therefore, support accordingly the demands of the users (owning whether tablet or computer).

In addition, after reviewing the technological research, I thought that pushing away the interface from the desktop’s metaphor the way we know it nowadays could be convenient, as well as the one referring to the mouse as an input method and replacing it by most accurate gestures function usually pertaining to multi-touch devices.

As an inspirational resource for the design of this new interface, could be the insights developed in “HER” the movie mentioned above.



design process

Design process

Since the first sketches, I always wanted to maintain a direct relation between the interface's elements and the objects we normally find in reality throughout the graphic metaphor. I found tremendously interesting the fact that the icons representing the elements were very similar to reality.

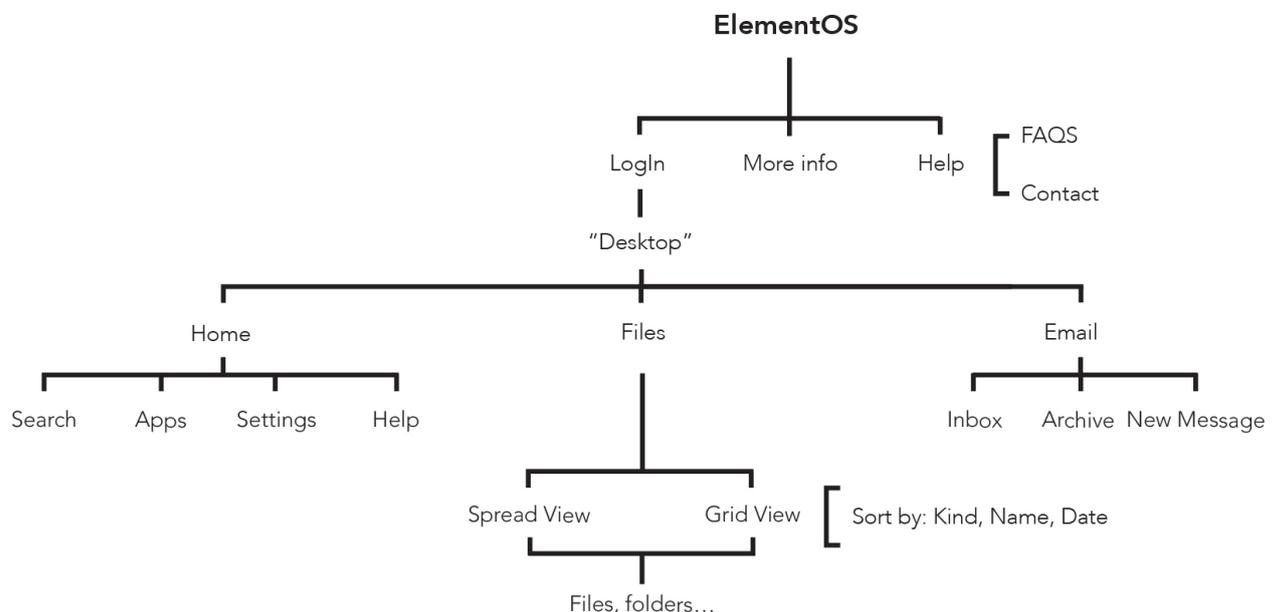
Paying close attention to detail on the style used by Geoff McFetridge for the interface used in "HER", I found out the variable of its success. The interface, which could not allow you to get lost, had elements from reality maintaining the textures and shadows and creating contrast within the interface. I decided to use the same technique to redesign the "desktop" metaphor, implementing textures, shadows and blurs to create a digital environment with an "alive feeling" different as the one we know today.

Never before I had to design Information Architecture for an operating system, and even less, for two together (tablet and desktop) thus I decided to concentrate myself on the common features (and most basic ones) that an operating system allows users to do. To those features, I added up my own personal characteristics used in my prototype

As a result I established that my operating system should display

- Login data for the system
- Help service
- File organizational system
- The creation of a folder
- Reorganization of files
- Rename a folder
- Taxonomy of folders
- Email application
- Sending email
- Organization of installed programs
- Switching between programs
- Execution of an installed program
- Option to change between devices

Once I decided those features I came up with a System Architecture



08

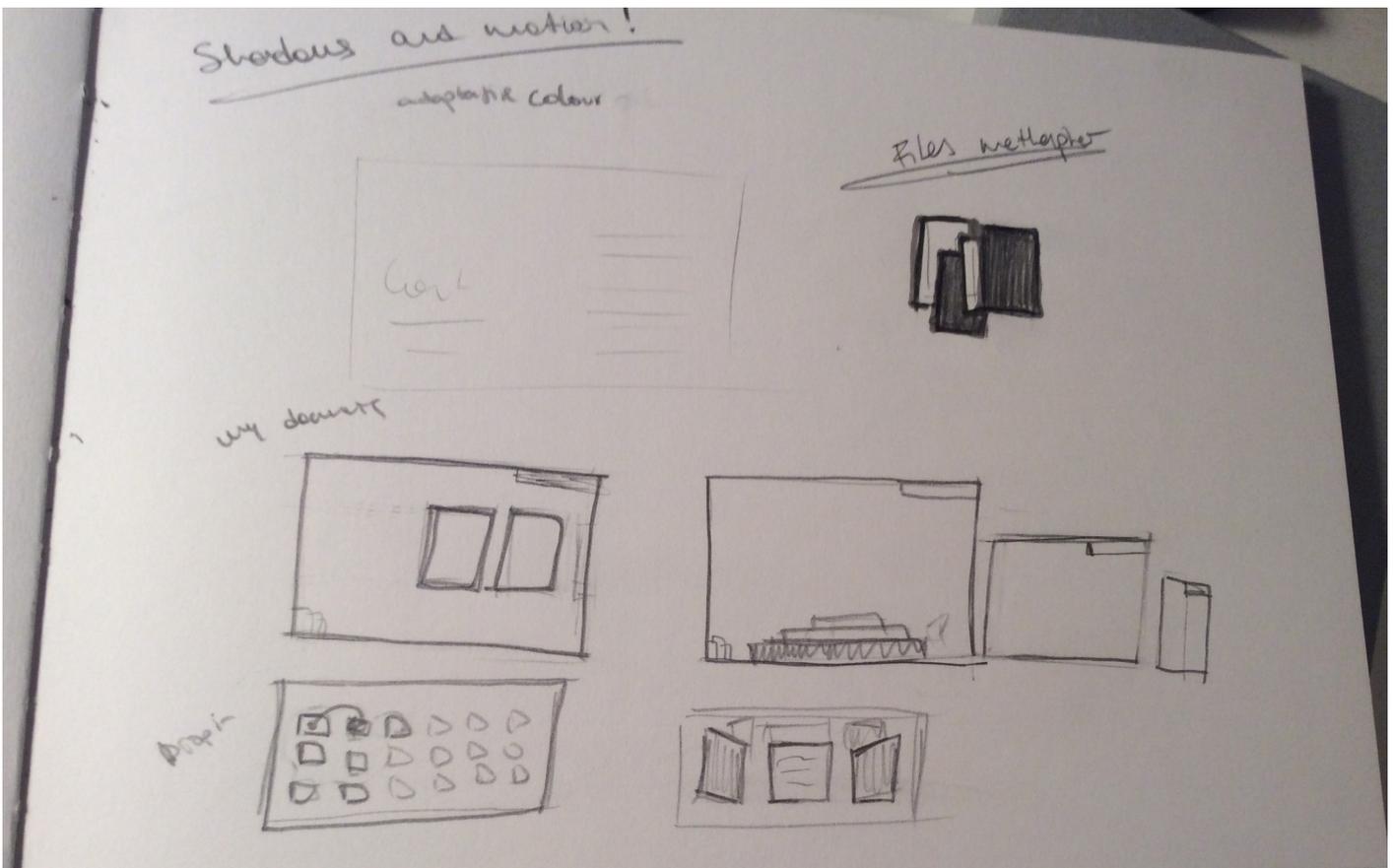
Other features of the operating system are based on new technologies which are being developed till now. The summary of operating system features are:

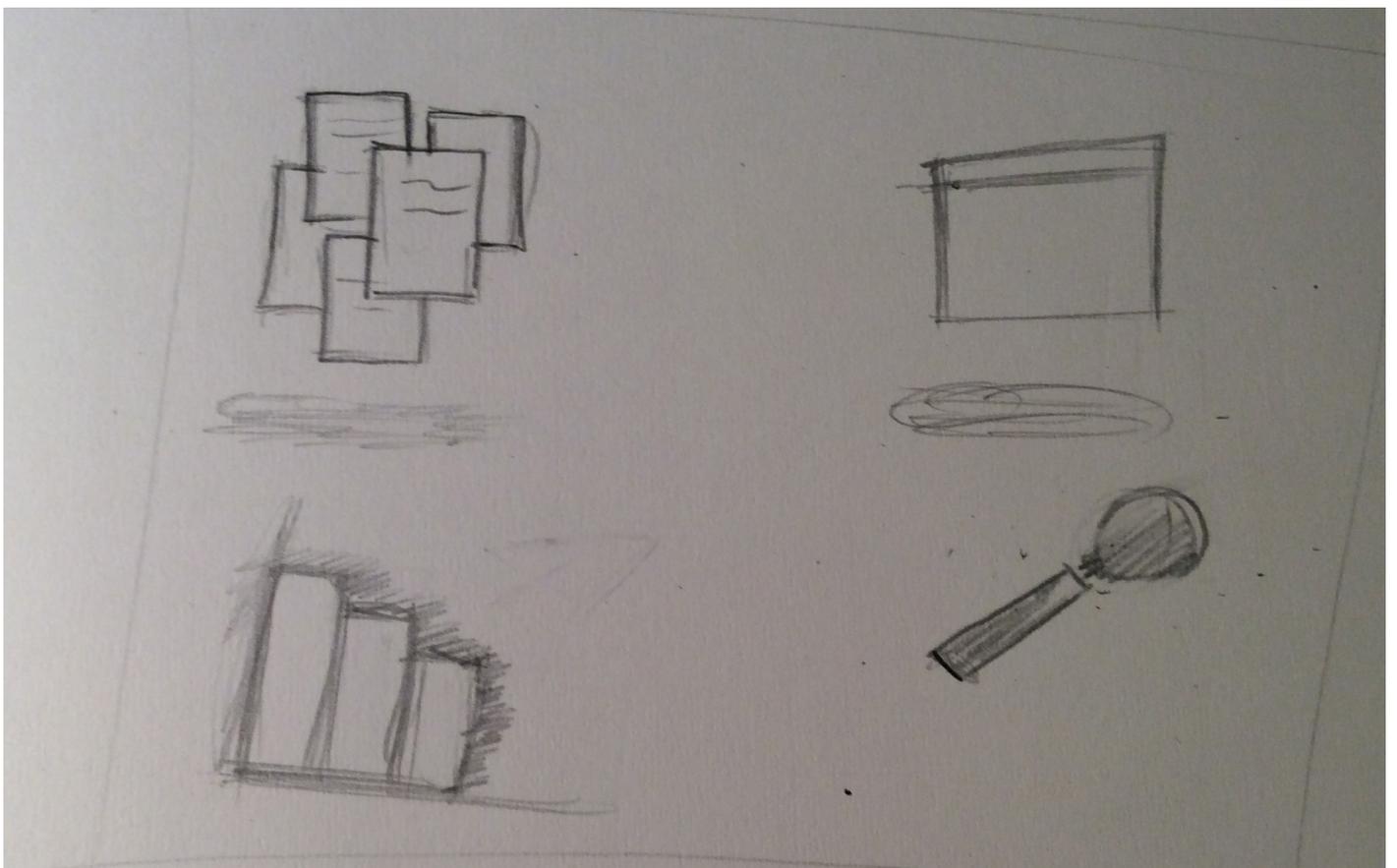
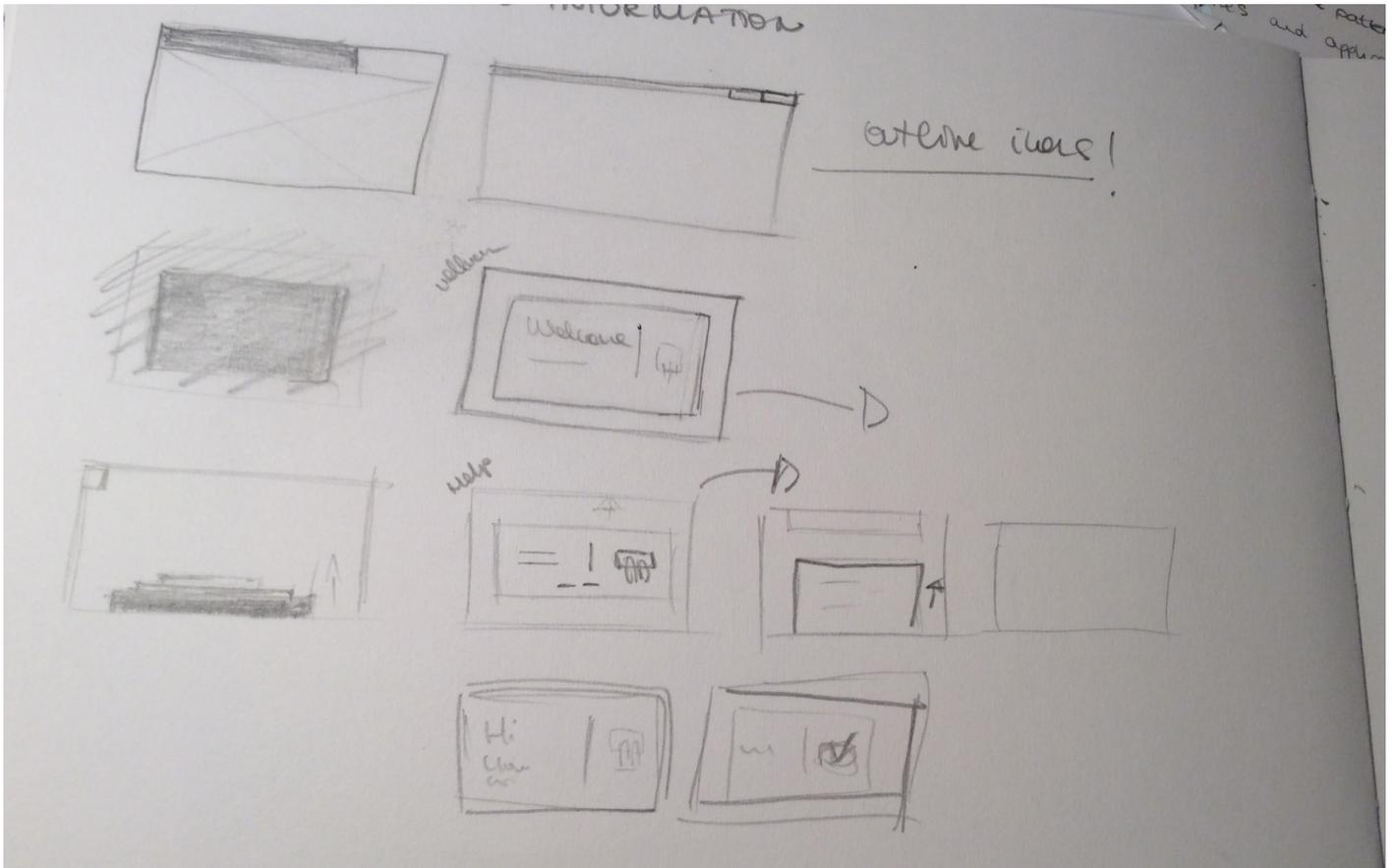
1. Automatic and evolutionary background colour allowing the adaptation to light and colouring in each workplace situations.
2. Access to the touchpad through fingerprint.
3. The elimination of desktop metaphor, in favour of a new interaction system without windows.
4. Implementation of gestures
5. The interface elements have their own attributes that evolve in response to interactions in order to give visual feedback.

As a consequence of those features I started developing very first sketches taking into account that, the elements belonging to my interface should have been recognisable instead of wearing a label.

Being an operating system designed to operate in two very different platforms, desktop and tablet, the established input method has been the gestures. Desktop mouse has been replaced to make way for these gestures on the touchpad, through which interface is controlled naturally.

As gestures cause a cognitive overload, I have decided to represent them through interactions with different colors for differentiating when a gesture is accepted and when it is rejected by the interface.





HER UI FEATURES

- ICONICAL BASED INTERFACE
- VOICE CONTROL
- RED, WHITE, PINK, YELLOW, BROWN - PALETTE
- BAUHAUS SHAPES

MOTION!!

BLURS

SHADOWS

} IMPORTANT

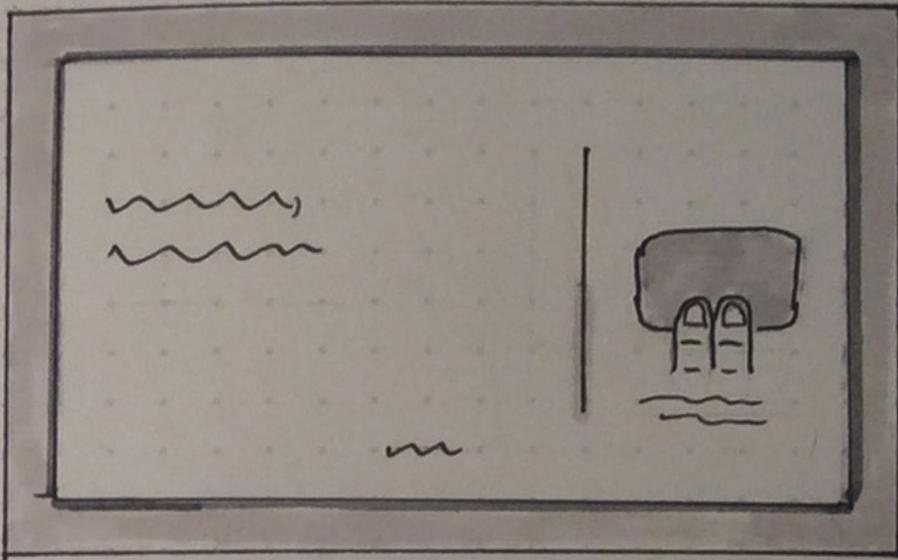
• Windows

COEXISTENCE OF FLAT AND SKEDMORPHISM

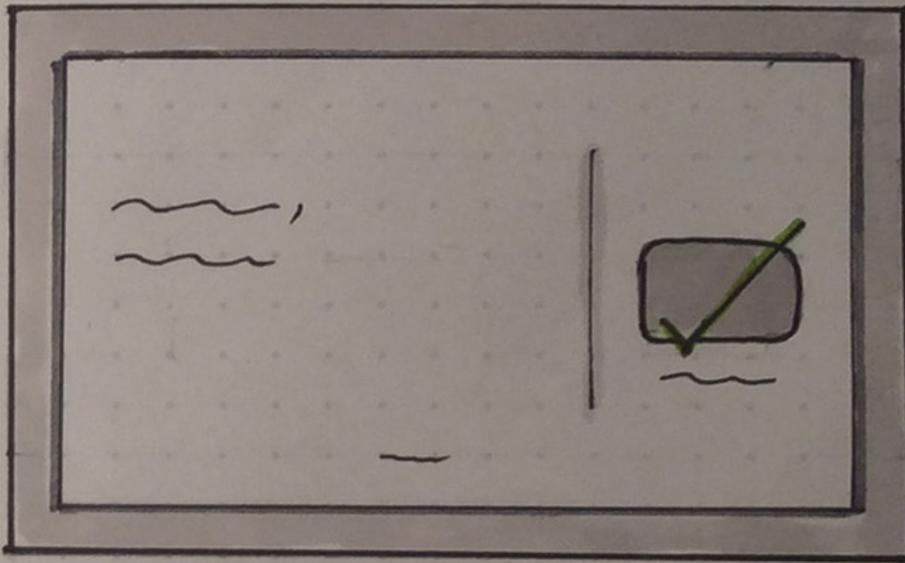
METAPHORS

IMPLEMENT

- GESTURES
- MATERIAL DESIGN (GOOGLE) FEATURES
- HIGH END ELEMENTS (METRO UI)
- PRIMITIVE SHAPES (BALMANS)
- ADAPTIVE COLOR (PHILIPS)



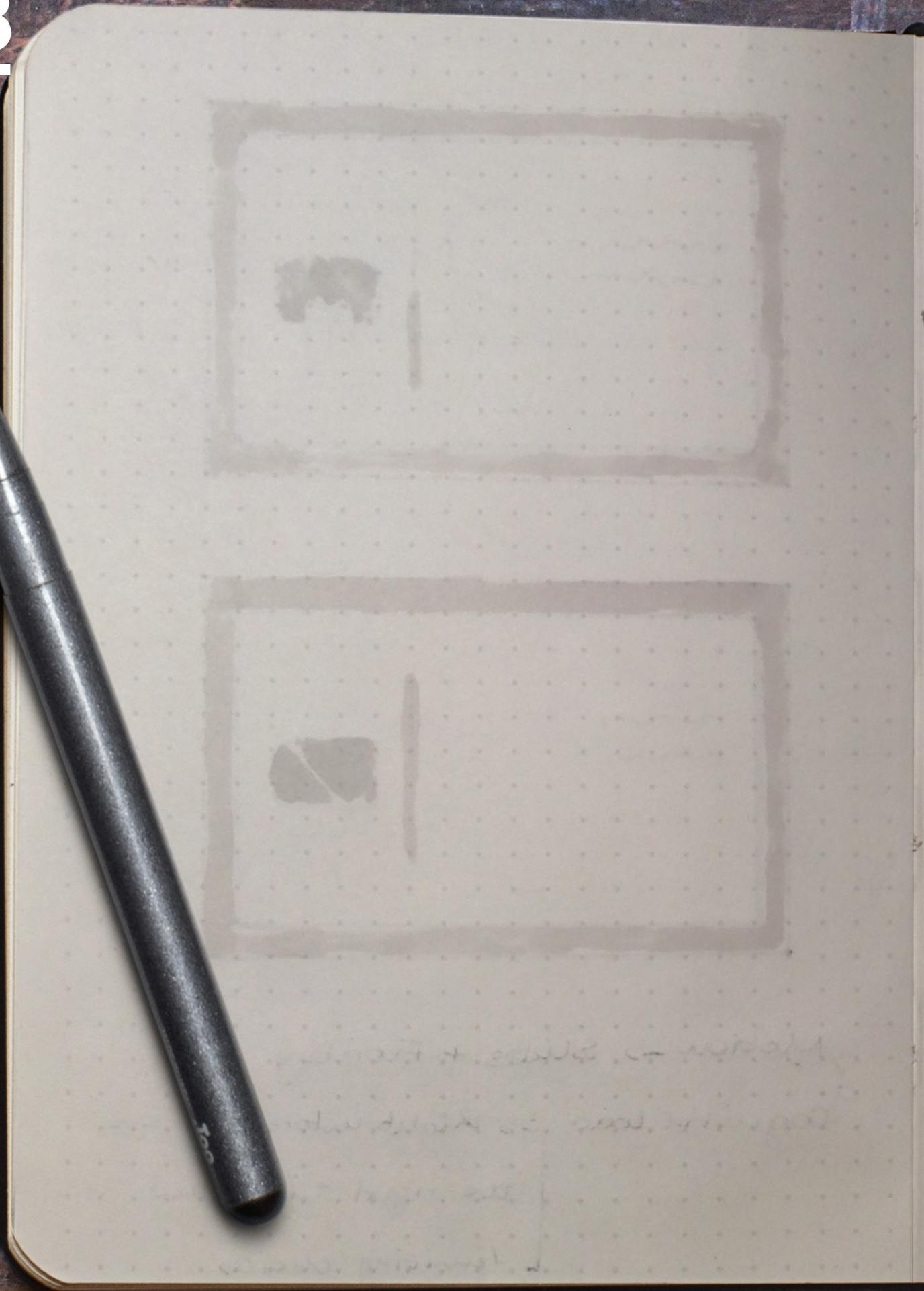
10%
↓
0%



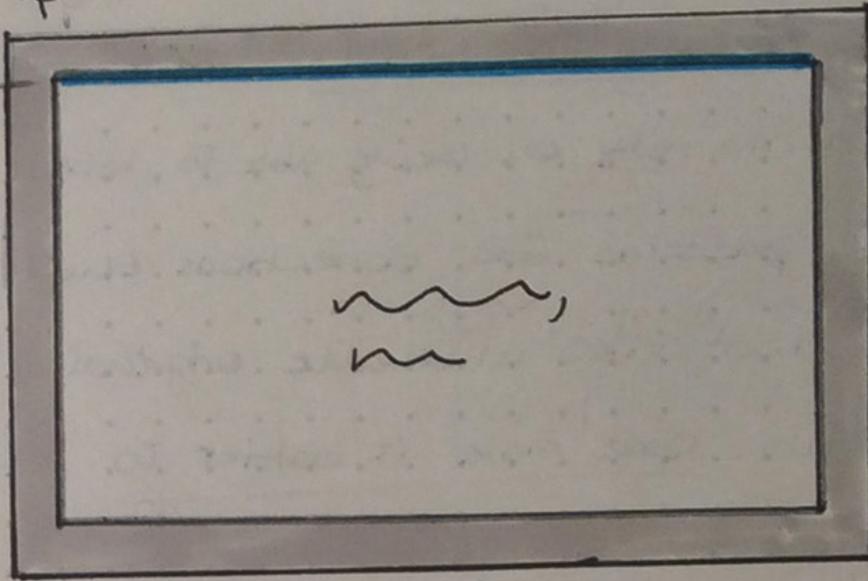
0%
↓
100%

Mobian → Slides + Floating

Cognitive load → Right information on
the right time and
limiting choices



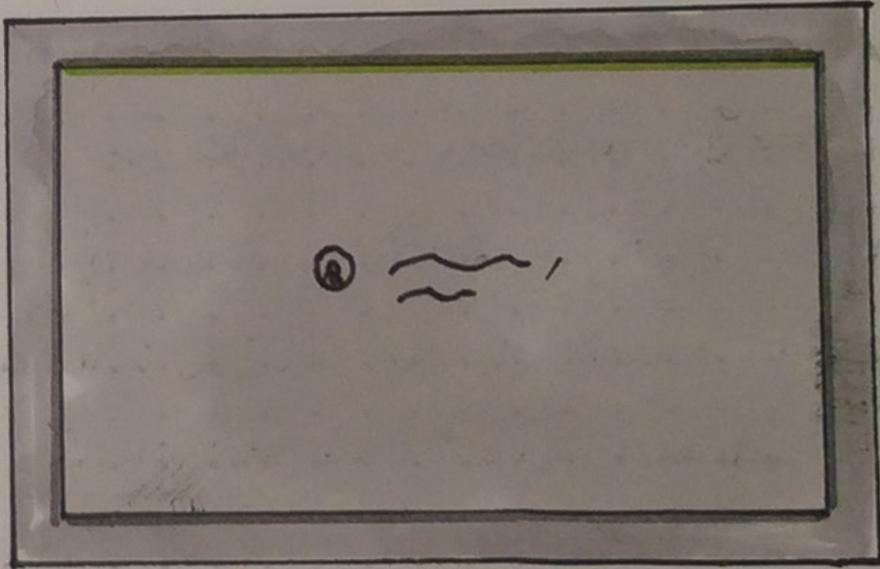
Option 1



progress bar

0% → 100%

Option 2



progress here ✓

Op1 → without image

↳ Less ~~pers~~ customisation

Op2 → with image (avatar)

↳ more visual recognition

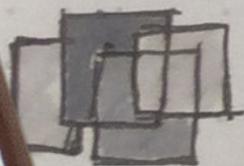
RECOGNITION OVER CALL

Memories rely on being able to retrace neural patterns and connections that were associated with the original stimulus. cues make it easier to retrieve memories !!

Chunking

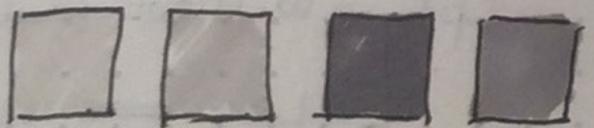
Our brain break down information into more manageable chunks to admit it into working memory. The best practice is to divide information into "between three and six items"

Document

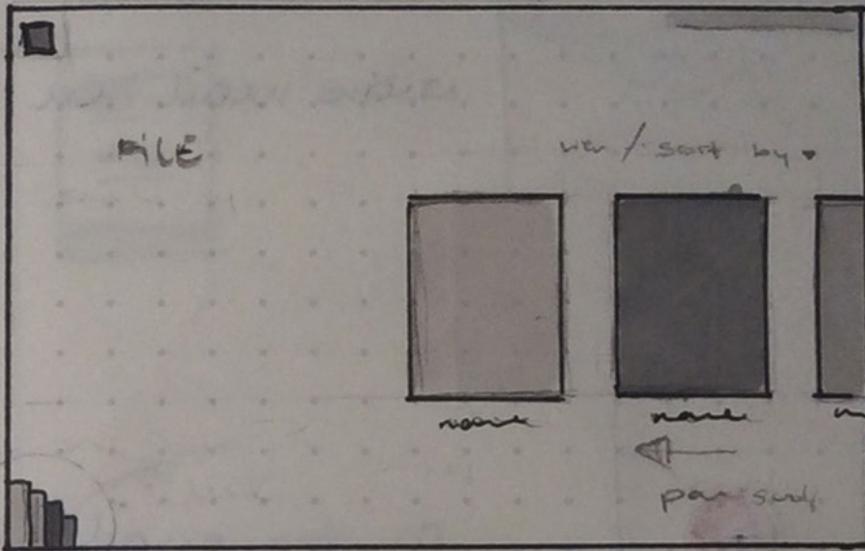


group

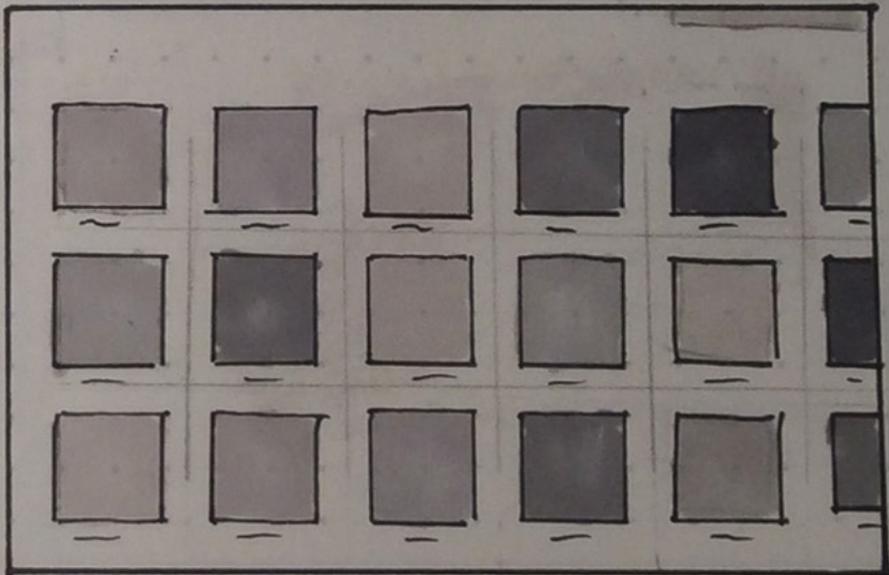
onclick/
gesture



spread

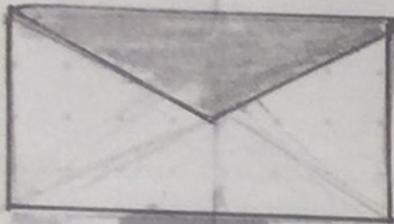


4 finger
spread



*
4 finger
pinch

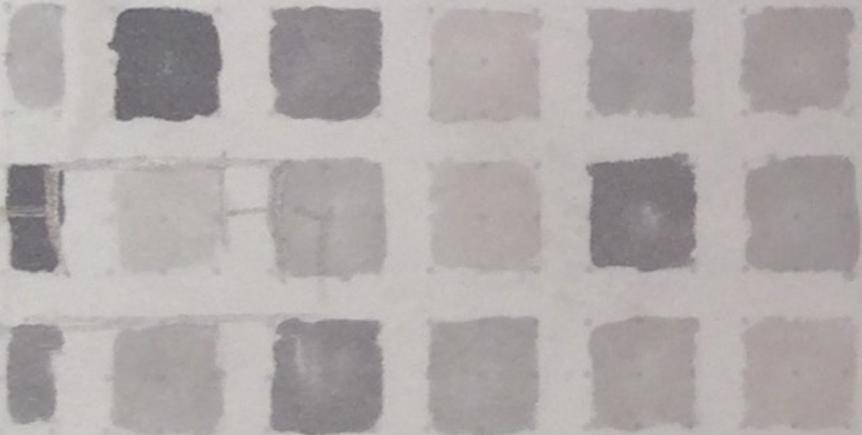
Direct
manipulation
Principles



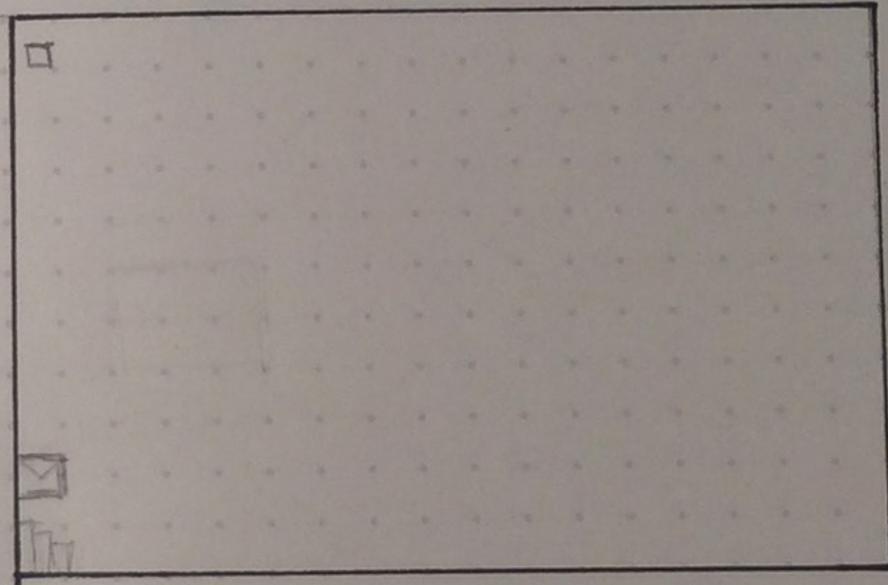
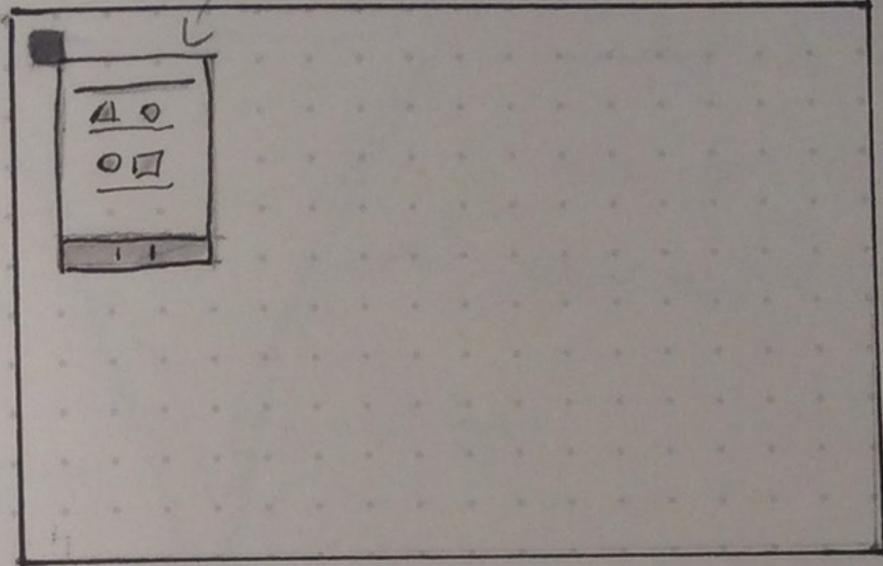
native mail icon



compose email icon



search bar

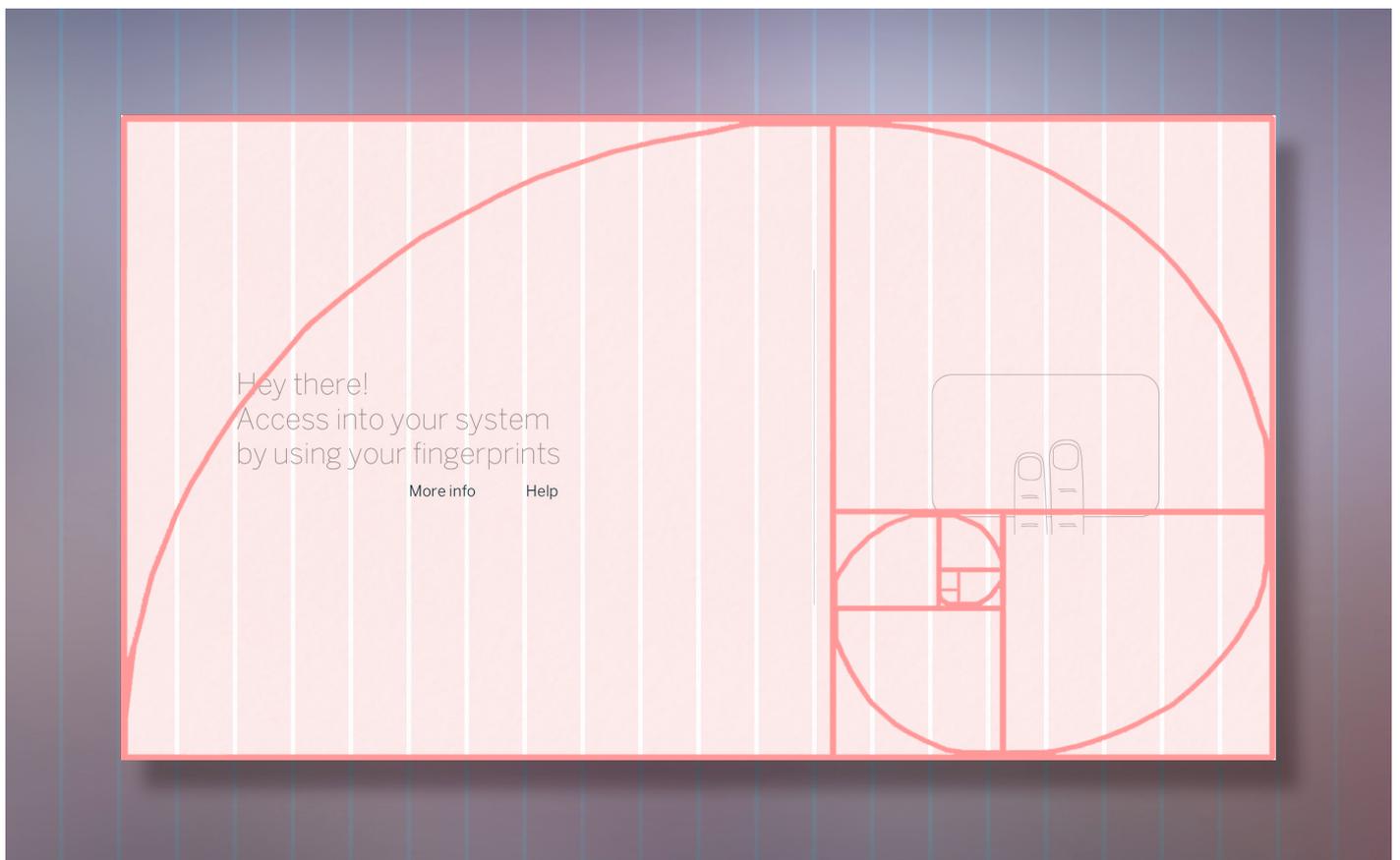
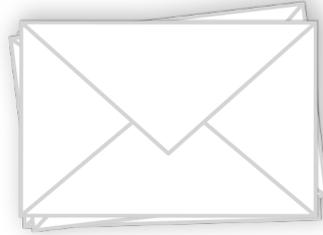
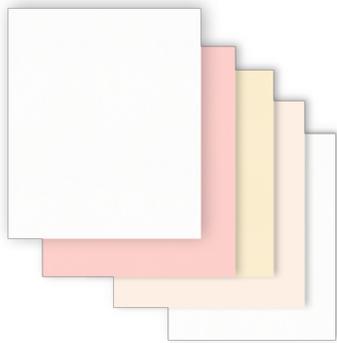
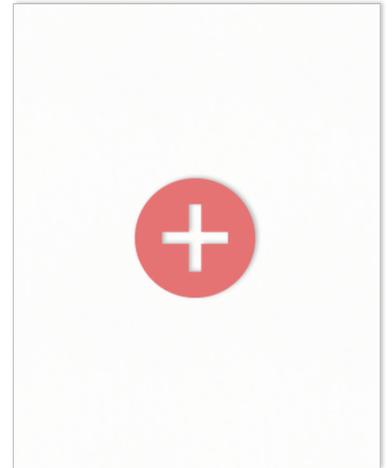


08

Final design

I worked on the basis of a twenty four columns grid and in the Golden Ratio Grid System in order to create a proportional and balanced interface taking care to the minimum detail

Following are displayed some outcomes of the final design.

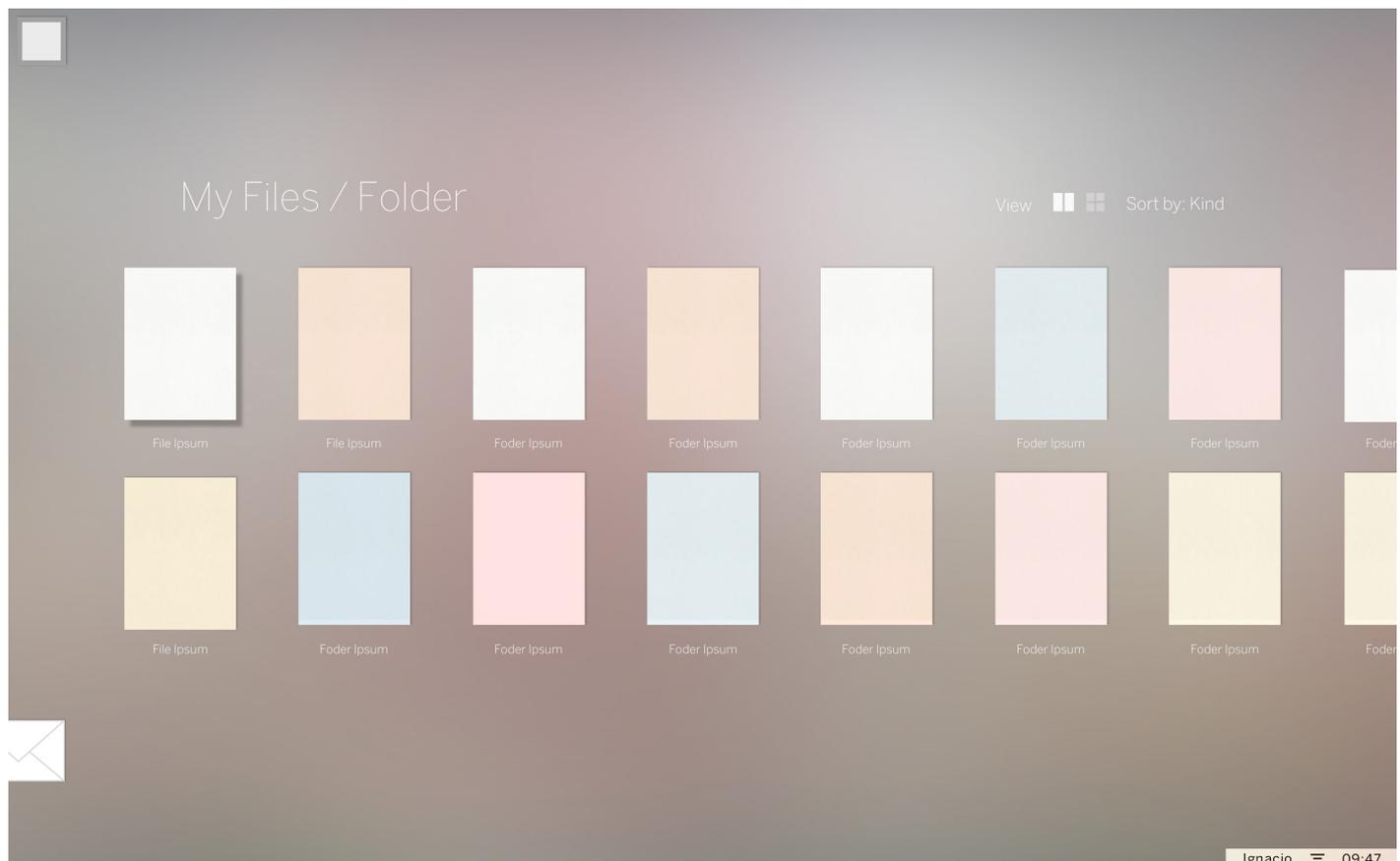
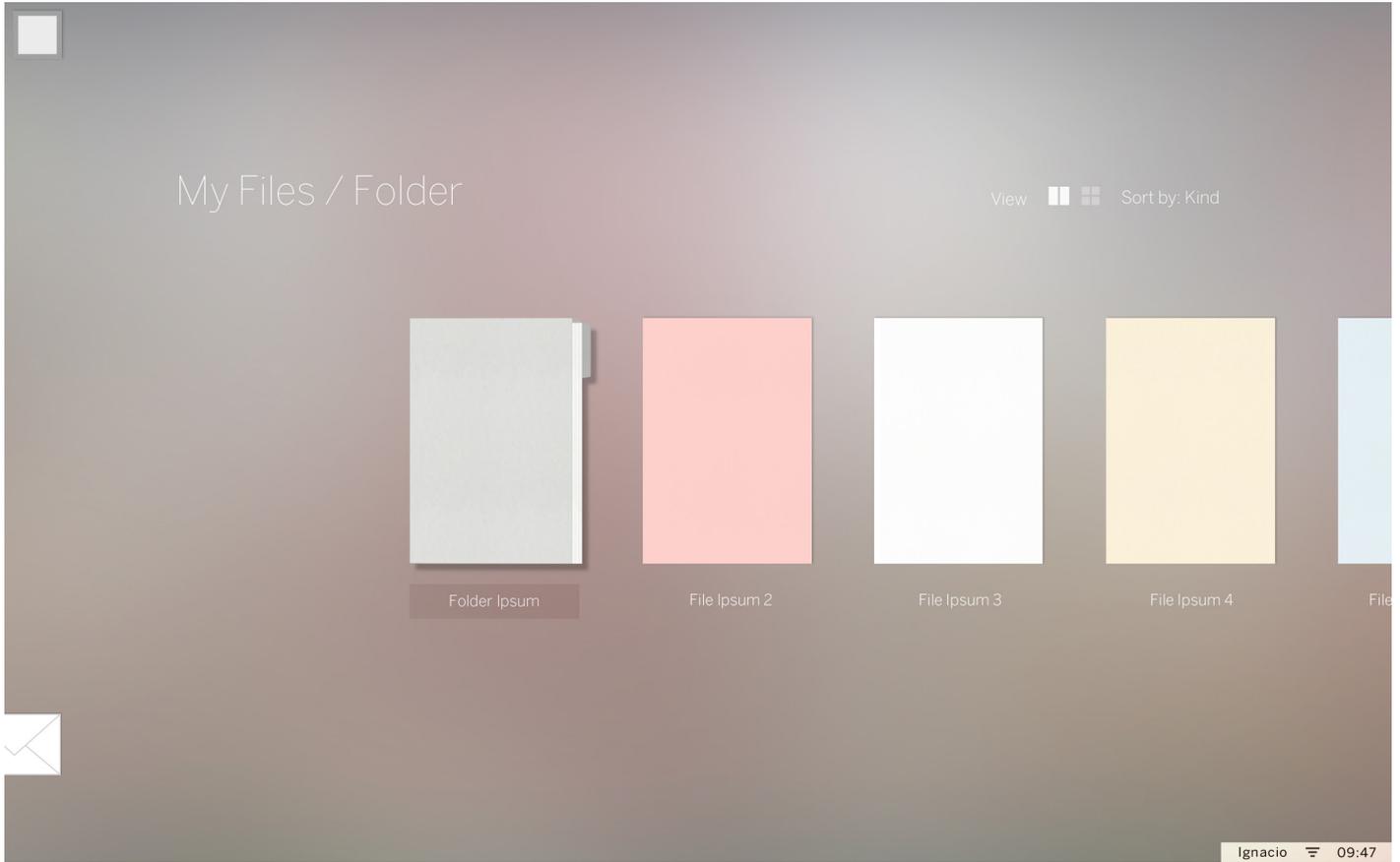


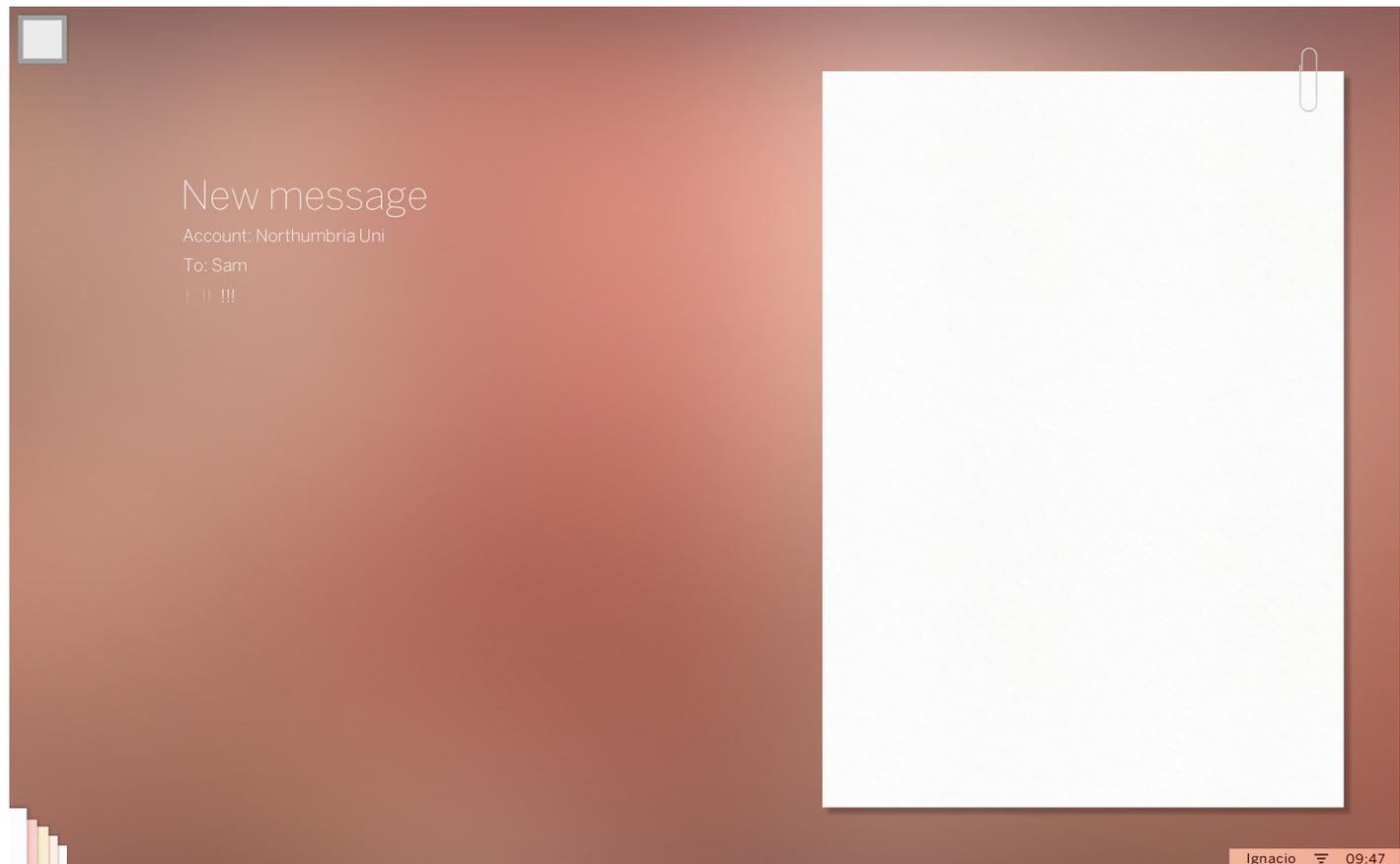
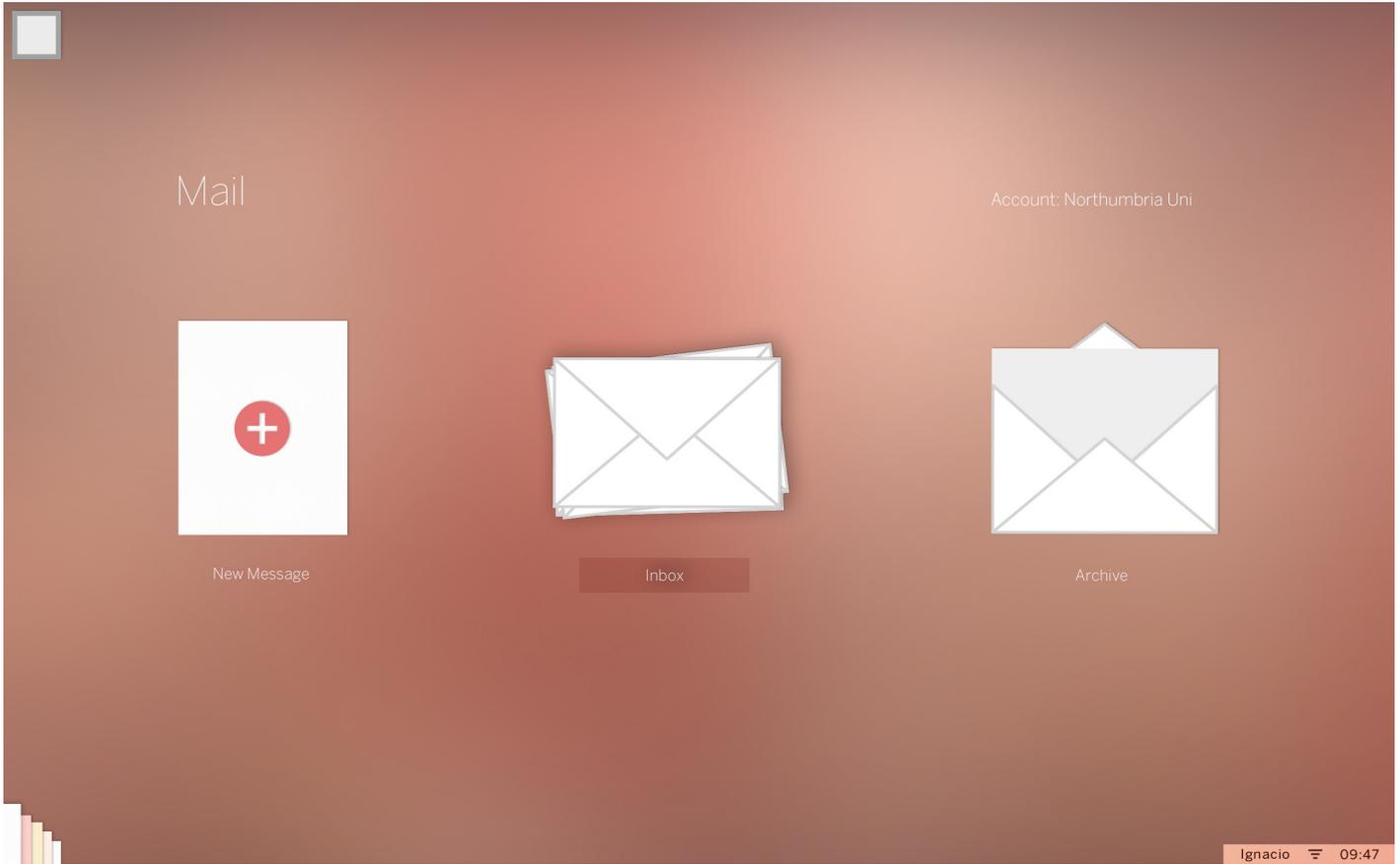
Hey there!
Access into your system
by using your fingerprints

[More info](#) [Help](#)



08





proto- type

Prototype

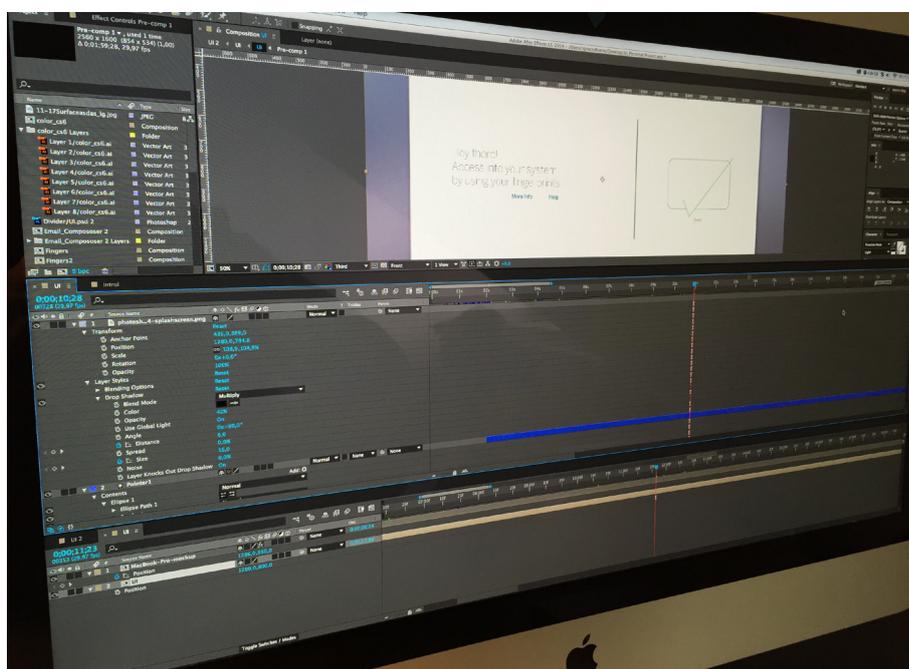
The prototype was created in after effects in order to achieve the most realistic kind of animation as well as the feedback that the interface could provide to the interactions with gestures.

During the animation process, I was very cautious and concerned about the elements having their own and independent behaviour depending on the lighting or the speed at which they were moved by the gestures, all with the purpose of giving life to the interface.

In order to answer all the aspects of design exposed by Mr. Norman in his book Emotional Design, I considered of very high importance the fact of giving a real life to the interface during the design and prototyping process.

With a clear, neat and modern design, we are able to satisfy the visceral aspects of design by catching the eye of the users and creating a great first impression. And by using animations and natural gestures, making sure that all the aspects of Behavioural design will be answered, so with a simple use and natural interactions they would feel an engagement with my project.

The song I used in my prototype was "Years" of Keith Kenniff



10

feedback

Feedback

To be honest I could be happier with the outcome achieved by the project in general.

I have spent a lot of time doing research about project related subjects but when I had to write about them in this design document, I realised that there was too much background information. However I am happy with final aesthetic, because I have raised an “effective” alternative to the desktop metaphor, besides I am pleased with the quality of prototype`s animations which show faithfully the interactions that could be done with my operating system and its responses.

Furthermore I have to acknowledge that I should have focused on transmitting the main idea of my project in a convincing way, instead of expanding on the aesthetic aspects, explaining better my idea, providing better documentation and deliverables (as the scenarios).

One of the best thing I have got from my first personal project is to know how to improve my way of working by keeping the concept in mind instead of thinking mainly on the look and feel thus I can feel good about myself.

