



Information Gathering Methods

School of Computer Science | Software Requirements and Design

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 - Observation
 - Surveys using questionnaires
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 - JAD session, existing documentation
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Reading material:

- Edition 6 of book: Chapter 2, pg. 46 – 58

Describing Requirements

Requirements



Describing the Requirements

- Make a requirement list
- Three user centered design methods:
 - User stories - part of e.g. Scrum
 - Scenarios
 - Use cases - part of UML
- Use cases are most formal
 - Scenarios and user stories less formal

Requirement list

- A requirement list will often look something like this:

Number	Name (and possibly a short description	Use case number(s)	Priority (A/B/C)	Status (approved)
...

- **Number:**
 - an incrementing number which identifies each requirement
- **Name/description:**
 - short description of the requirement
- **Use case number(s):**
 - a list of use cases which have to do with this requirement
- **Priority:**
 - how important this requirement is:
 - A: absolutely essential
 - B: useful, but not mission critical
 - C: nice-to-have
- **Status:**
 - approved/not approved (not always used)

User stories

- One way of describing what users should be able to do in a system
- Very common way of describing user stories

"As a <user group>,
I want <user goal>
so that <reason>."

"Sem <Notendahópur>
get ég <Markmið notenda>,
til að <Ástæða>"

Where are the details ?

As a user, I can cancel a reservation so that I can get money back.

- Does the user get a full or partial refund?
- Is the refund to her credit card or is it site credit?
- How far ahead must the reservation be cancelled?
- Is that the same for all hotels?
- For all site visitors? Can frequent travelers cancel later?
- Is a confirmation provided to the user?
 - How?
- A description is needed
 - Use case, scenario, prototype, written text,.....

Product Backlog – List of User Stories

Sample Product Backlog 2.xlsx - Microsoft Excel

	A	B	C	D	E	F
1	Product Backlog					Team Velocity 25
2	Priority	Estimate	Sprint	User Type	Story	Story Type
3	1	1	1	Customer	I can see when the next show will begin for the show page I am on	Story
4	2	2	1	Editor	I can select what I want to display for each "section" within the editorial content section of the page. My options include last episode, next episode, selected forum posts, selected editorial articles (tv generated), no selection and free form text	Story
5	3	2	1	Editor	I can select what picture (if any) I want to display for the corresponding content section	Story
6	4	5	1	Editor	I can select the default tab for the user to see upon visit to the page, for each show	Story
7	5	5	1	Customer	I can roll over the fields in the media player and see the various tabs change	Story
8	6	13	2	Editor	I can modify the existing headline for any show page	Story
9	7	1	2	Customer	I can select another show page in the drop down list next to the countdown clock	Story
10	8	1	2	Customer	I can click "remote record" and have the show for the show page I am on record on my tivo device	Story
11	9	1	2	Customer	I can click "Join the discussion" button (or link) on the show page which takes me to the appropriate forum page for that show	Story
12	10	1	2	Customer	I can see how many recent posts have been posted in the forum for the show page I am on	Story
13	11	3	2	Customer	I can see how many recent replies have been posted in the forum for the show page I am on	Story
14	12	5	2	Customer	I can blog about the show for the show page I am on (I need to be signed in to see this)	Story
15	13	13	3	Customer	If I am not signed in, I can see a link to sign in	Story
16	14	13	3	Customer	If I am logged in, I can click "favorites" and have the show page added to my favorites menu on the site	Story
17	15	13	4	Customer	If I have not contributed to the poll, I can see the poll questions and submit to the poll	Epic
18	16	20	5	Editor	I can create a new poll for a specific show	Epic
19	17	20	6	Editor	I can close an existing poll for a specific show	Epic

ProductBacklog UserClasses RiskBacklog CommunicationMatrix

Requirement List vs. Product Backlog

- Both describe the requirements for the whole system
 - The requirements are prioritized in both cases
 - There are references to more detailed descriptions either use cases, scenarios, prototypes, etc.
- User stories mention the user group, but users are not necessarily included in requirements
-

As a user I want to be able to buy a ticket

Use Case structure:

1. Pick a performance you want to go to
2. State what date you would like
3. Find a button to buy a ticket
4. State how many tickets you need
5. Select the tickets you like
6. Insert information for payment
7. Insert information on the delivery

Scenario description:

Marta wants to see the theater piece Njála in Borgarleikhúsið, because there has been a lot in the news about this piece. She finds a web site for Borgarleikhúsið and selects the show. She would like to go on a Sunday, because during the weekend she enjoys better going to the theater, so she selects February, 7th. She is going with her husband, so she wants two tickets. When she has done that the system shows her the tickets and she pays them and will pick them up 15 min before the show at the teather.

Information Gathering with Interviews



Information gathering

- Four steps:
 1. Preparation
 2. Gather the data
 3. Analyse the data
 4. Describe the data

Example: Telephone interview

1. Prepare the survey
2. Conduct a survey
3. Calculate the results
4. Report the results

1.



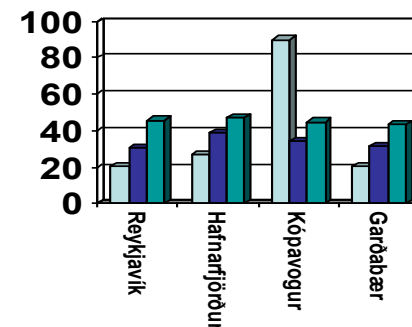
2.



3.



4.



Information gathering methods

- The main methods are:
 - Interviews with users
 - Observation
 - Surveys using Questionnaires
 - Evaluation of Prototypes
 - Workshops/focus groups
 - Review existing reports, forms, web sites,

Interviewing Users – Viðtöl við notendur

- When you interview, you talk to a person and ask questions
 - It easy and friendly
- Needs good planning
 - Whom do we want to interview?
 - What questions do we want?
 - How long is the interview?
- Two types of interviews
 1. Structured interviews
 - Questions decided in advance
 - No space for discussion
 2. Semi structured interviews
 - Has decided goals
 - The interviewer goes deeper into some issues in the interview



Semi structured interviews

- Are very good for requirements analysis and design
- Good to get users opinion on particular ideas
- More informal than structured interview
- But we need to have some structure for the discussion
 - Either written down or ideas
- There has to be some trust between the people involved
 - Some people find it hard to be negative
 - Try to make a friendly atmosphere
- Flexible interviews are harder for the interviewer
 - Training gives you good support
 - Good to pilot test the interview with one person
 - You should always record the interview (sound or video)

Themes in the interview

- What are the business operations and processes?
 - Questions to users: What do you do?
 - Think about: What are the real tasks?
- How should those operations be performed?
 - Questions to users: How do you do it? What steps do you follow?
- What information is needed to perform those operations?
 - Questions to users: What information do you use? What forms or reports do you use?

We should interview 3 -4 in each group

Notendahópur	Bakgrunnur	Notkun kerfisins	Umhverfi	Helstu markmið
Námsmenn hérlandis Mikilvægi: Mikilvægasti hópurinn ásamt námsmönnum erlendis	Aldur: yfir títugt Kyn: bæði kynin Menntun: framhaldsskólapróf Hæfni/vanhæfni: ekkert sérstakt Tölvufærni: mjög góð yfirleitt	Notkun: Kerfið mest notað á haustin. Lítið notað þess á milli nema út af sérstökum fyrirspurnum. Þjálfun: Engin þjálfun á kerfinu eða reynsla frá vinnu. Viðhorf: Notendur eru almennt jákvæðir fyrir kerfinu þar sem það veitir þeim þjónustu sem þeir þurfa á að halda. Fjöldi notenda: ca. 4.000	Tæknilegt umhverfi: Mjög mismunandi hvernig umhverfið er þar sem notendur koma úr öllum áttum, nettenging og ytri aðstæður mismunandi. Raunverulegt umhverfi: Áttu að vera oftast í skólaumhverfi eða heima, en gætu verið hvar sem er. Annað umhverfi: ekkert sérstakt	-Sækja um lán eða styrki og nálgast upplýsingar
Námsmenn erlendis Mikilvægi: Mikilvægasti hópurinn ásamt námsmönnum hérlandis	Aldur: yfir títugt Kyn: bæði kynin Menntun: framhaldsskólapróf Hæfni/vanhæfni: ekkert sérstakt Tölvufærni: mjög góð yfirleitt	Notkun: Kerfið mest notað á haustin. Lítið notað þess á milli nema út af sérstökum fyrirspurnum. Þjálfun: Engin þjálfun á kerfinu eða reynsla frá vinnu. Viðhorf: Notendur eru almennt jákvæðir fyrir kerfinu þar sem það veitir þeim þjónustu sem þeir þurfa á að halda. Fjöldi notenda: ca. 2.000	Tæknilegt umhverfi: Mjög mismunandi hvernig umhverfið er þar sem notendur koma úr öllum áttum, nettenging og ytri gæti verið mjög erfiðar aðstæður sums staðar. Gætu verið með umboðsmann. Raunverulegt umhverfi: Áttu að vera oftast í skólaumhverfi eða heima, en gætu verið hvar sem er. Annað umhverfi: ekkert sérstakt	-Sækja um lán eða styrki og nálgast upplýsingar
Námsmenn, sem lokið hafa námi Mikilvægi: Næst mikilvægastur á eftir námsmönnum hérlandis og erlendis	Aldur: 20 - 99 Kyn: bæði kynin Menntun: háskólapróf Hæfni/vanhæfni: ekkert sérstakt Tölvufærni: misjöfn, fer töluvert eftir aldri	Notkun: Kerfið notað tvisvar á ári til að greiða afborganir. Þjálfun: Engin þjálfun á kerfinu eða reynsla frá vinnu. Viðhorf: Notendur eru almennt jákvæðir fyrir kerfinu þar sem það veitir þeim þjónustu sem þeir þurfa á að halda. Fjöldi notenda: ca. 30.000	Tæknilegt umhverfi: Mjög mismunandi hvernig umhverfið er þar sem notendur koma úr öllum áttum, nettenging og ytri aðstæður mismunandi. Raunverulegt umhverfi: Áttu að vera oftast heima eða í vinnu. Annað umhverfi: ekkert sérstakt	-Skoða upplýsingar um lán - Greiða afborganir

To find interviewees

- How can we find users?
 - From our customers
 - From our marketing department
 - From our user support
 - Get managers agreement
 - Get connections from users representatives
 - Get a list from the customer
 - Advertise

MENIGA - lifandi fjármál

Forsíða Fræðsla Um Meniga Hjálp

Notendaprófanir Meniga

Um Meniga Spurt og svarað Í fjölmiðlum Stórt hjá Meniga Hverjir standa að baki Meniga? Hvað segja notendur Meniga? **Notendaprófanir Meniga**

Notenda prófanir Meniga

Við hjá Meniga bjóðum fólki reglulega að koma og prófa kerfið okkar. Þeir sem prófa fá einföld verkefni til að leysa í Meniga, hugsa upphátt og leyfa okkur að fylgjast með. Við launum þeim síðan með einhverju eins og út að borða fyrir tvo.

Með þessu viljum við reyna að bæta kerfið okkar, við teljum að bestu prófarar á kerfið okkar sé venjulegt fólk því að við erum að búa til kerfi fyrir venjulegt fólk. Ef þú hefur áhuga á því að hjálpa okkur að bæta kerfið (og skella þér síðan út að borða) máttu endilega skrá þig hér að neðan.

Nafn:

Netfang:

Símanúmer:

Kyn:

Nota Meniga:

Viðskiptavinur Íslandsbanka:

☐ Ég vill einnig prófa nýtt

☐ [Skrá mig](#)

Kostir Meniga

Sparaðu tíma
Fulldaginn yfirvinnu yfir heimilisfjármálin með sjálfvirkri flokkun færsla.

Haltu þig innan ramma
Aðskjallegg tölu til að halda bókhald og gera raunhæfar áætlanir.

Gott fyrir veskið
Sparnaðarráð sem eru sérsníðin að þínu neyslumynstri.

Skemmtilegri fjármál
Samfélag, samanburður við

MENIGA - Lifandi fjármál

Námskeið í notkun Meniga

Hjálp Hjálparmyndbönd Spurt og svarað Bloggið **Námskeið í notkun Meniga**

Við erum reglulega með námskeið í notkun Meniga. Námskeiðin fara fram eftir vinnu milli 1 listann hér að neðan og við látum þig vita næst þegar við erum með námskeið.

Nafn:

Email:

Hvað af eftirfarandi á best við um þig:

☐ Ég hef aldrei notað Meniga

☐ Ég byrjaði að nota Meniga en fannst það of flókið

☐ Ég byrjaði að nota Meniga en fannst fjármálin flókin

☐ Ég byrjaði að nota Meniga en ákveðin virkni pirraði/truflaði mig

☐ Ég byrjaði að nota Meniga en fannst ég ekki fá nóg út úr því

☐ Ég nota Meniga og langar að læra meira

☐ Ég hef áhuga á að notendaprófa Meniga

[Skrá mig á lista](#)

Um Meniga Spurt og svarað Í fjölmiðlum Stórt í boði Notkunarskilmálar Hafðu Öryggis- og persónuverndarstefna

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This should be checked in an interview

- Background
 - Age, gender, education, abilities/disabilities, general computer knowledge
- The use of the system
 - How much is it used (how often and how much each time), the skills of using this system, the attitude, the number of users
- The context of use
 - The real environment, the technical environment
- The main users' tasks
 - What do users want to do
 - How do they do this today
- The importance of the user group
 - Estimated from all these things

In what environment?

- Very good to interview in the environment where the system will be used
- If used in different environments

- Office environment
- At home
- In school
- Different geographical areas

	Viðskiptavinur	Umsjónarmaður	Leiðsögumaður	
Skrifstofuumhverfi	2	2		4
Heima	2	1	2	5
Úti á landi			2	2
	4	3	4	

- Take 2 – 3 in each environment
 - 2 users in each environment
 - If the environment is homogeneous take different groups

Take into consideration for an interview

- The travelling time
- The attitude of the user
- Trust and security
- How much time the interview will take in total
- Explain how the interview is planned
- Plan for analysis of the data
- Plan for that some interviewees will drop out

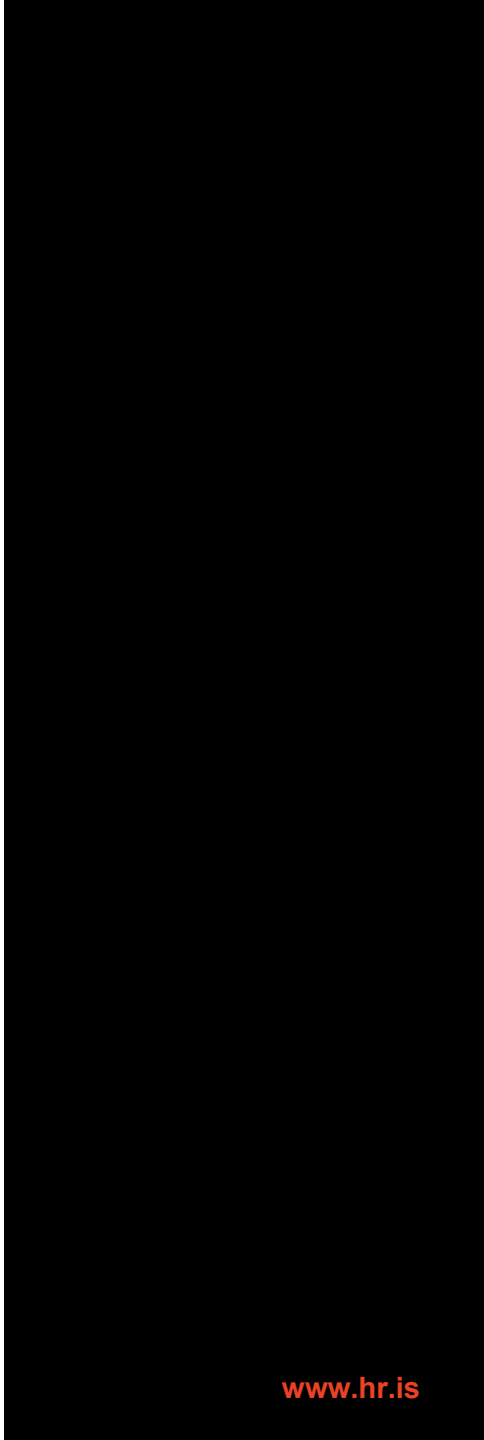
Analysing and Describing Results of Interviews

- Summarise the background of your interviews
 - We had 10 interviewees, 6 males and 4 females. Their age range was from 34 – 67. They had been working for the company from 6 months to 16 years.
- Summarise the results
 - If you have asked the same questions to all
 - Summarise what the interviewees said for each question in your own words
 - Often good to take examples. Like one of the interviewees stated: „I only use this system, when nothing else works“.
 - If you have asked particularly about some issues
 - Summarise what the interviewee said

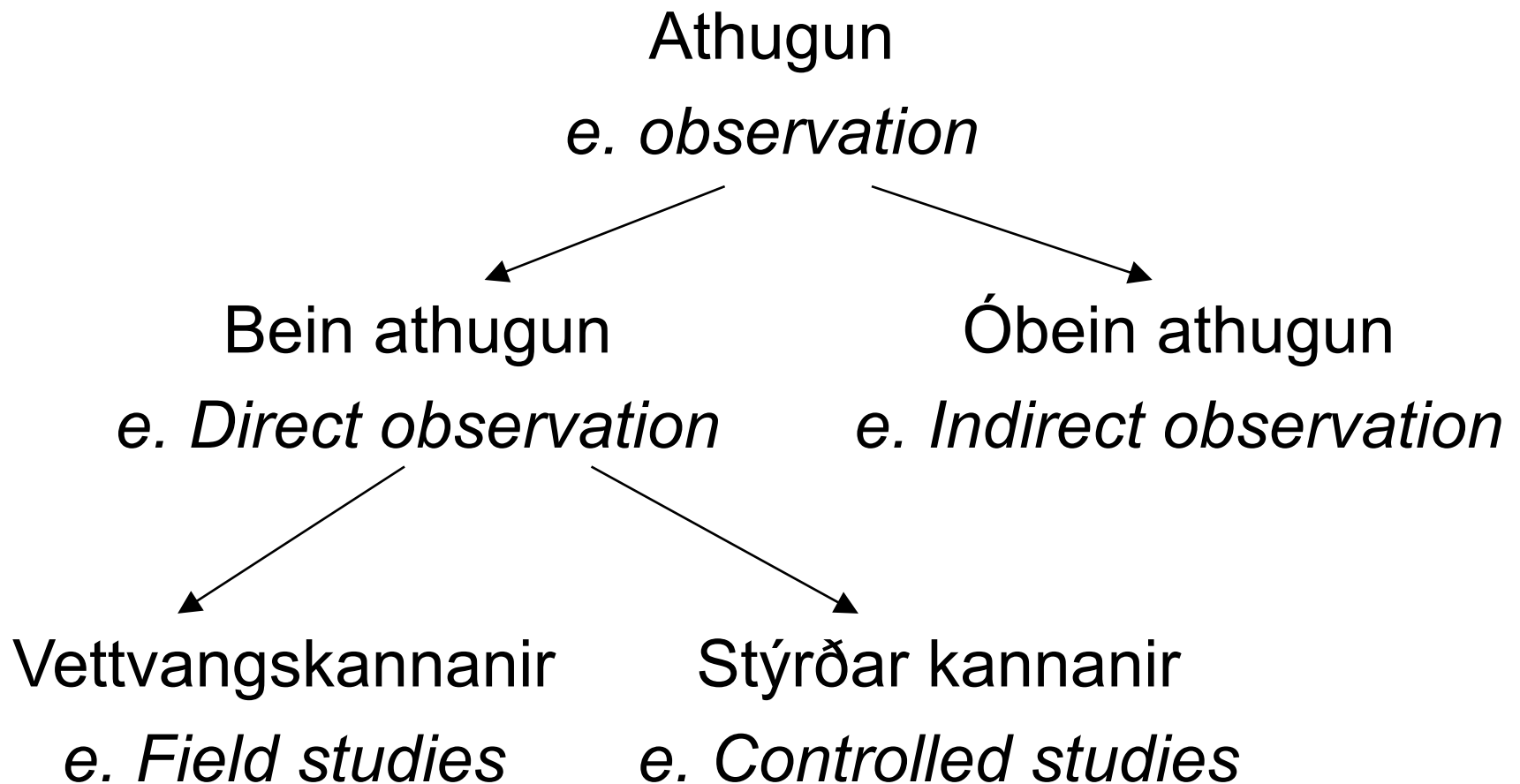


Analysing Interviews is Challenging

www.hr.is



1. Observation



Direct observation – Bein athugun

- One person observes the user
- Writes notes
 - Does not want to disturb the user
- The user uses the system and solves some tasks
- Very good to understand how the system is used
- Takes a lot of time but gives extensive data



Direct observation

- Divided into
 - Field studies (Vettvangskannanir)
 - Controlled studies (Stýrðar kannanir)
- Field studies
 - The user does his daily tasks in his own environment
 - Work place or at home
 - The observer notes important issues
- Controlled studies
 - The user is observed solving predefined tasks
 - Often in a usability lab
 - Sometimes one conductor and one observer
 - Often precise data gathering, time, mouse clicks, etc.
 - Often called: user testing

Direct observation – Bein athugun

- Very extensive results
- Easy to perform
- Has its limitations
 - We meet the user only once
 - We affect the user
 - The data is biased towards what the observers thinks is important
 - Sometime we videotape the test session
 - Sound, video or recorded in the computer
- Good to use when describing the requirements



Indirect observation – Óbein athugun

- The use is recorded
 - Video or logged in the computer
 - Nobody is observing
- Huge amount of data
 - That we need to analyse
- The observer does not affect the user
- Have to plan it very well in advance
 - What is your goal, what data do you need

2. Survey using questionnaires

- *Könnun með spurningalistum*
- We are doing a survey
 - Questionnaire is the tool
- Questionnaires are answered privately
- More structure than in interviews
- A questionnaire has a particular goal
 - Questions for gather data on particular knowledge
- Both on paper and web
- Pros:
 - Very easy to access many people
- Cons:
 - Sometime not that good response rate

Forkönnun.

Vinsamlegast lesið eftirfarandi:

Þakka þér kærlega fyrir að taka þátt í þessum notendaprófunum.

Þessi könnun er framkvæmd af starfsmönnum Háskólans í Reykjavík og Háskóla Íslands. Hún er liður í samstarfi háskólanna og Skýrr um nýjar leiðir við úrvinnslu niðurstaða úr notendaprófunum. Einn þáttur í því verkefni er að safna upplýsingum um hvernig ný útgáfa af kerfinu **Vinnustund** nýtist notendum við vinnu sína. Mundu að það er **kerfið** sem verið er að meta **ekki þín kunnáttu**.

Nafnleynd hvílir á öllum þeim upplýsingum er þú lætur í té.

Persónuupplýsingar

1. Hvert er þitt stöðuheiti:

2. Hversu lengi hefur þú gengt þeirri stöðu?

☐ 0-1 ár ☐ 2-3 ár ☐ 4-6 ár ☐ 7-10 ár ☐ 11-14 ár ☐ 15+

3. Hve lengi hefur þú starfað hjá Skýrr?

☐ 0-1 ár ☐ 2-3 ár ☐ 4-6 ár ☐ 7-10 ár ☐ 11-14 ár ☐ 15+

4. Aldur:

☐ 0-19 ☐ 20-39 ☐ 40-59 ☐ 60+

5. Kyn:

☐ Kvenkyns ☐ Karlkyns

Tölvukunnáttu

6. Hve lengi hefur þú notað tölvur (PCs, Mac, o.s.v.frv.)?

☐ 0-1 ár ☐ 2-3 ár ☐ 4-6 ár ☐ 7-10 ár ☐ 11-14 ár ☐ 15+

7. Hversu mikið á dag að meðaltali, notar þú tölvur?

☐ 0-59 mín. ☐ 1-2 klst. ☐ 3-4 klst. ☐ 5-6 klst. ☐ 6-7 klst. ☐ 8+

8. Telur þú þig vera: (miðað við tölvukunnáttu)

☐ Byrjanda ☐ Meðal notanda ☐ Sérfræðing

9. Hvar notar þú tölvuna? (merkðu allt sem á við)

☐ Heima ☐ Í vinnu ☐ Annað

10. Hversu lengi hefur þú notað Vinnustund?

☐ Minna en mánuð ☐ 1 mán. til 1 ár ☐ 1 – 2 ár ☐ 2 – 3 ár ☐ meira en 3 ár

11. Hvaða kerfi notar þú reglulega í vinnunni?




















12. Hvaða kerfi notar þú reglulega heima?

Two types of questions

- Closed questions
 - Choices
 - Yes/No questions
 - Particular choices
 - Always don't know/
 - Does not apply
 - Sometime we use scale
 - Often 5 or 7 possibilities
 - Have to be opposites
 - Sometime likert scale
 - You respond to a statement
 - The respondent tells you if he agrees or disagrees
- Open questions

How do you..., What ways are there...., What do you do to

 - Harder to analyses those

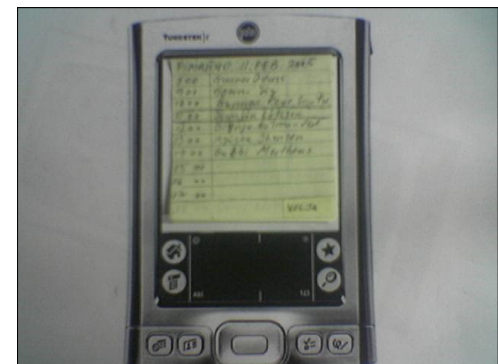
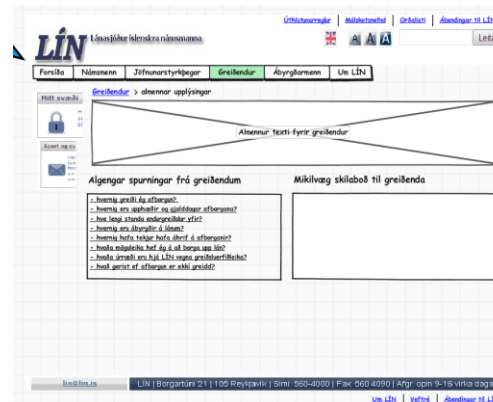
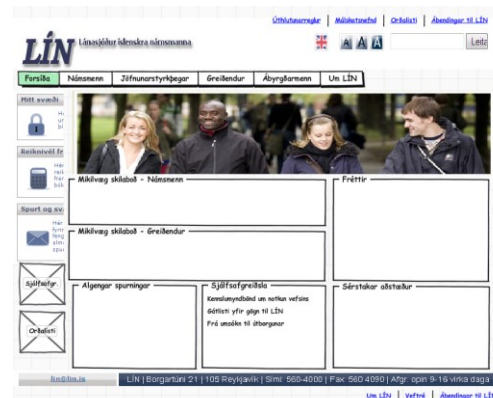
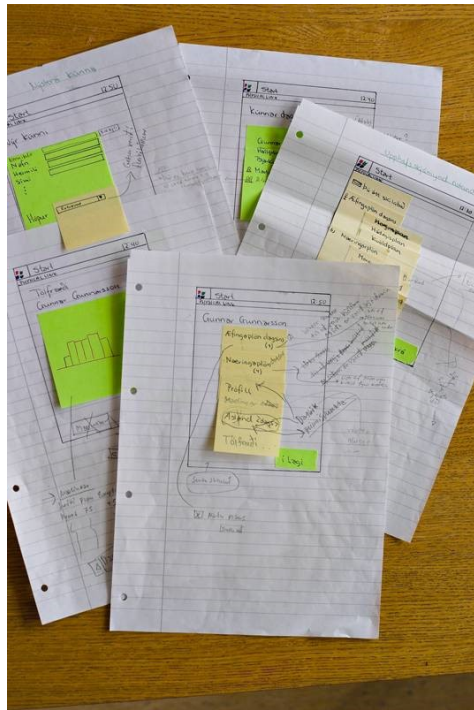
		1	2	3	4	5	6	7	NA
1. Overall, I am satisfied with how easy it is to use system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
2. It was simple to use system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
3. I can effectively complete my work using system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
4. I am able to complete my work quickly using system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
5. I am able to efficiently complete my work using system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
6. I feel comfortable using system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
7. It was easy to learn to use system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
8. I believe I became productive quickly using system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
9. system gives error messages that clearly tell me how to fix problems 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
10. Whenever I make a mistake using system , I recover easily and quickly 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
11. The information (such as online help, on-screen messages, and other documentation) provided with system is clear 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
12. It is easy to find the information I needed 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
13. The information provided for system is easy to understand 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
14. The information is effective in helping me complete the tasks and scenarios 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
15. The organization of information on system screens is clear 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
16. The interface of system is pleasant 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
17. I like using the interface of system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
18. system has all the functions and capabilities I expect it to have 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
19. Overall, I am satisfied with system 	DISAGREE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	AGREE <input type="radio"/>
		1	2	3	4	5	6	7	NA

When designing a questionnaire

- Have to be well designed
 - A boring questionnaire will not get any response
- The questions have to be simple
 - As few as possible
 - Not more then 2 A4 pages
 - Clear questions and not ambiguous
 - The users can not ask you about the questions
 - The questions should collect data that you need
 - Leave space for comments
 - “Some other comments?”
- Very important to test the questionnaire well

3. Evaluating Prototypes

- Prototype is an initial, working model
 - of a larger more complex entity
 - Often used to gather information on requirements



Design prototypes - Millihönnun

Pizza



☐ Íslenska

☐ Enska

☒ Áfram

Boðun í skoðun

Leitarvalmöguleikar

Aldur:
☒ 18 mín
☒ 3 ára
☒ 5 ára

Fæðingarár og mánuður:

Staða:
☒ Sjána börn sem þegar hafa komið

Nafn	Heimili	Aldur	Komið	Boðaður

SKRĀ SIG Ā SMS-lista

[illegible]

Logó Landsímans		Auglýsing							
Númeraleit	Nafnaleit	Gulu síðurnar		Stillingar	Hjálp				
Upplýsingar									
Númeraleit									
Nafnaleit									
Gulu síðurnar									

Númeraleit

Nafn einstaklings/fyrirtækis:

Heimili/staðsetning:

Svæði:

Nafnaleit

Símanúmer:

Netfang:

Veffang:

Gulu síðurnar

Nafn fyrirtækis:

Atvinnuflokkar:

Staðsetning:

Svæði:

Símanúmer:

Veffang:

Diagram illustrating the relationship between a main entity and its sub-entities:

Main Entity (Left Box):

- ALLIR DAGAR
- VIKIR DAGAR
- Helgæ
- SUNNADAGUR
- MÍNUDAGUR
- ÞRIÐJUDAGUR
- MIDDILJUDAGUR
- FIMMUDAGUR
- FÖSTUDAGUR
- LAUGUNDAGUR

Sub-Entities (Right Boxes):

Sub-Entity 1 (Top Right Box):

S	M	P	M	F	F	L
x	x	x	x	x	x	x
x	x	x	x	x	x	x
x	x	x	x	x	x	x
x	x	x	x	x	x	x

Sub-Entity 2 (Bottom Left Box):

S	M	P	M	F	F	L
x	x	x	x	x	x	x
x	x	x	x	x	x	x
x	x	x	x	x	x	x
x	x	x	x	x	x	x

Sub-Entity 3 (Bottom Right Box):

07:00
09:00
10:00
11:00
12:00
13:00

Evaluating Prototypes



Informal evaluation

- Informal evaluation session
- The goal is to observe the user using the low-fi prototype
 - One user at a time
- To gather feedback on the UI
 - Does it fit the users needs? Is if the requirement analysis is right?
 - Is the UI well designed and usable?
- The conductor suggests changes to the interface
 - According to the users reaction
 - They change the prototype in collaboration
- Different from interview because we are discussing the prototypes
 - Using the prototypes to guide the discussion

4. *Review exististing documentation*

- External to the organization
 - Sometimes “best practices” studies
- Within the organization
 - Reports, forms and procedure descriptions
- Some ways to use the documentation:
 1. Provide copies of the current documentation to review
 2. Use the documents in the interviews as visual aid
 - Good to have forms that have been filled out
 3. Aid to define business rules

5. Meetings

- What is it?
 - People gather for a short period of time (often one hour) at the same place
- Why do it?
 - Discuss issues that need to be decided
- When to do it?
 - When you need information from users
- How to do it?
 - It is vital to have the information being discussed visible for all participants, fx. by using a projector
 - You could bring prototypes, or visions, or other material to gather feedback during the meeting

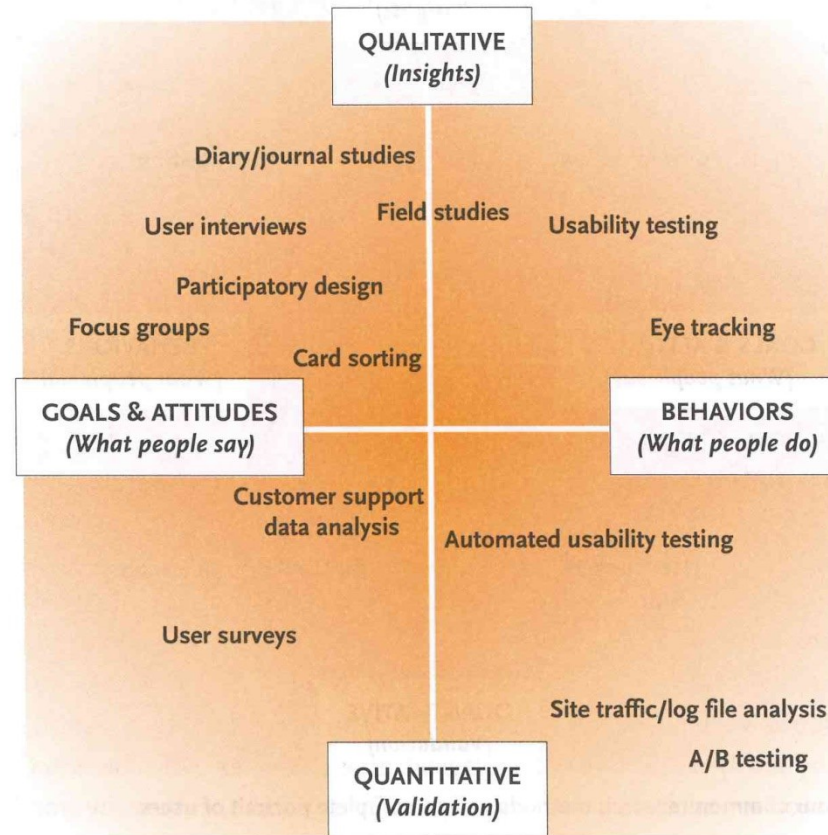
6. Workshops

- What is it?
 - a meeting at which a group of people engage in intensive discussion and activity on a particular subject or project
 - Walking the wall during class was actually a workshop
- Why do it?
 - To gather feedback from users and get them involved in the development of the product
- When to do it?
 - Often in the early phases of design and understanding
- How to do it?
 - It is often a three hour activity with one conductor planning and scheduling the activities and managing the event

Information gathering methods

- We have covered
 - Interviews
 - Observation
 - Questionnaires
 - Evaluating prototypes
 - Review existing reports, form and procedure descriptions
 - Meetings
 - Workshops
 - Exploring the competition

Select method according the information we need



The landscape of user research and testing techniques.

How do we use this information?

- To have better understanding of the use of the new system
- Use it for requirement analysis
 - To state requirements
 - By user Stories
 - Requirement list
 - Get information for Use Cases
- Use it for design
 - Designing the user interface
 - Modeling classes and objects

Exploring the Competition – Evaluating Web Sites

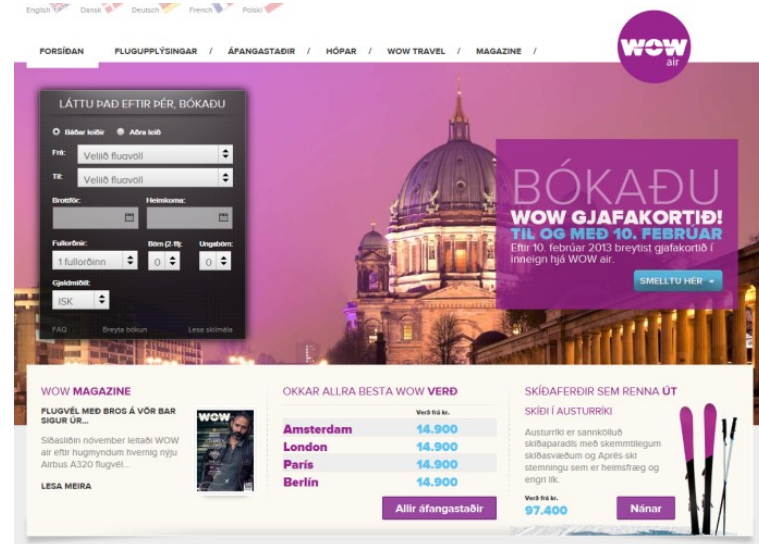


Exploring the Competition

- Many problems have already been solved
 - Good to study what is on the market
- Three positive contributions
 1. Often helps users/developers to generate new ideas
 2. Good to see excellent and state of the art solution
 3. Often cheaper and less risky to buy a solution
- One risk
 1. That the bought system does not cover all the requirements

Exploring the Competition

- Learn from other design solutions
- Assess both the positive and negative aspects
- Respect copyrighted material and intellectual property



Preparation for Comparing Web Sites

1. Decide what Web Sites to explore

- Decide core requirements that need to be fulfilled
- Decide what criteria you want to use
 - Should it be easy to use? Secure? Beautiful?
- Decide what results you are gathering

2. Ask evaluators to evaluate

- First alone, then meet and gather the results
- They have to have at least 3 – 4 hours
 - 1 -2 hours for evaluation in private and two hours for a meeting

Preparation – Evaluating Web Sites

3. Decide where to evaluate

- Do not need a evaluation laboratory, most often informal environment

4. Decide how to register the pluses and minuses

- How are you going to describe your findings?
- Often good to prioritise the findings
 - State 5 good things
 - State 5 bad things

Pluses and Minuses

- Pluses

- What supports the users work
- What is easy to use
- What has good user experience
- You can also check:
 - What has a sales potential
 - What supports the organizational mission

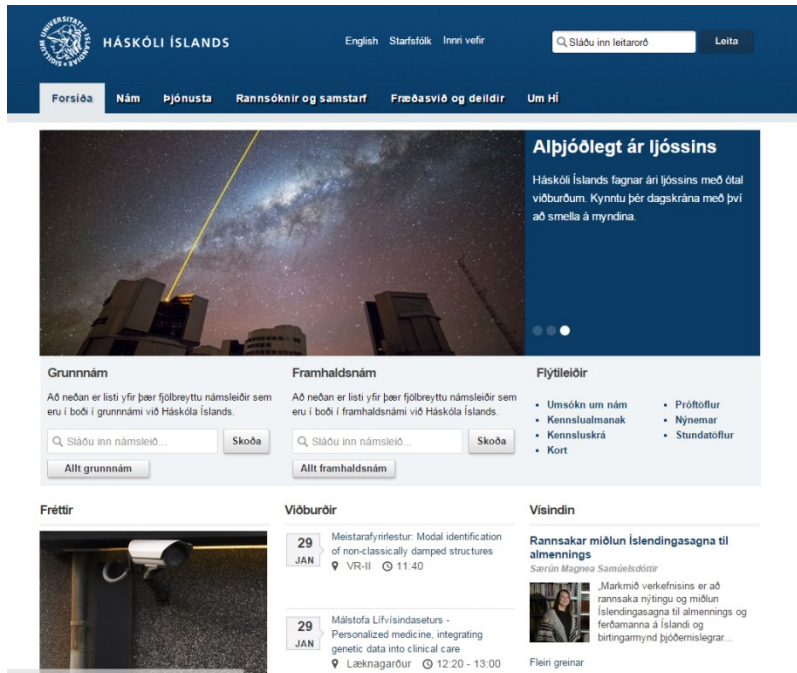


• Minuses

- This design doesn't support the work
- It is hard to understand
- You have problems when using it



Evaluating the Competition



- Plusses

- State all the positive things that you discover by browsing through the competitors

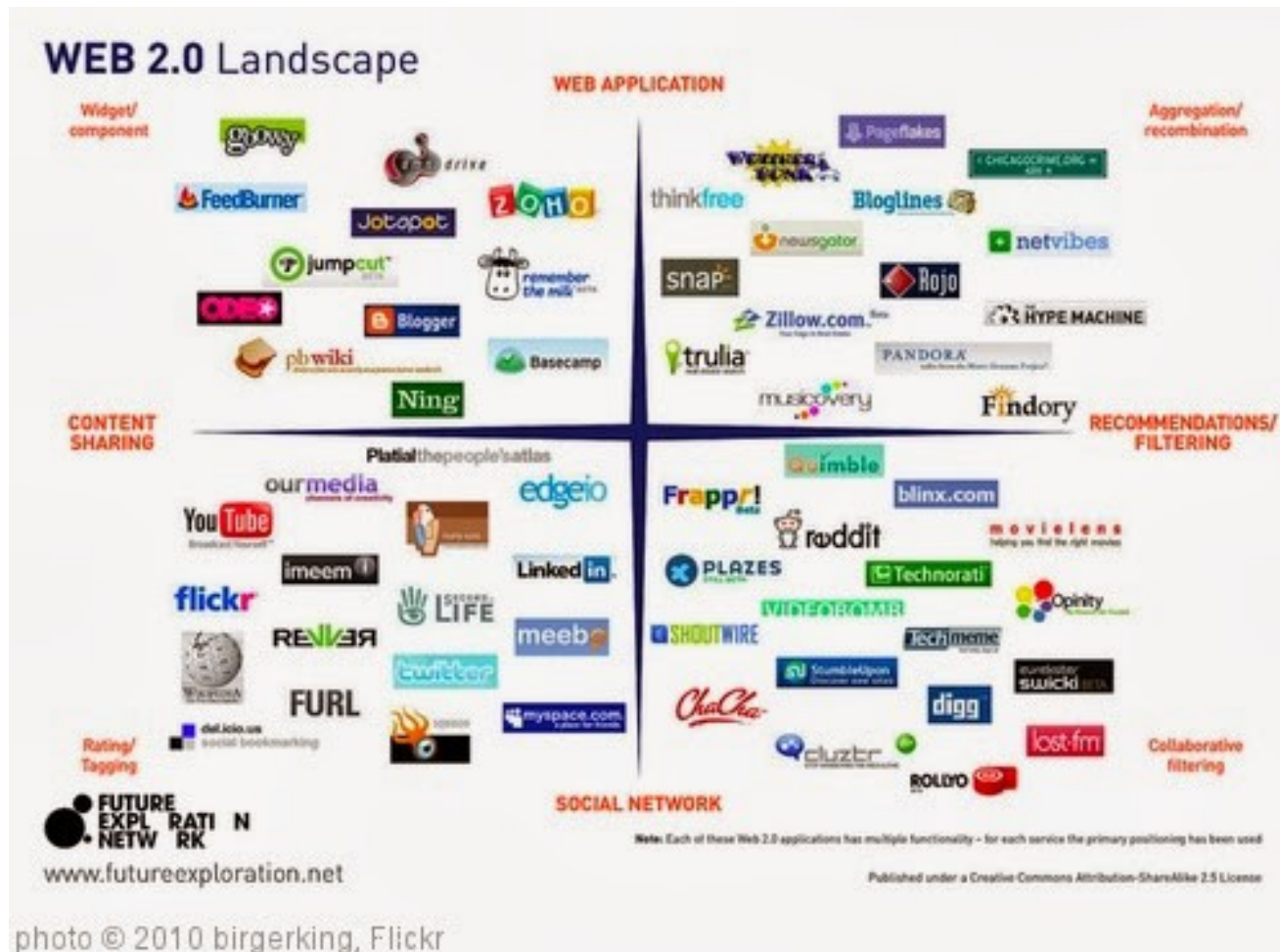
- Minuses

- State all the negative things that you discover by browsing through the competitors

Exploring the Competition

- What you need to do in assignment 1
 - Decide at least 5 web sites that you are exploring
 - Decide what requirements you want to study
 - Decide what aspects you want to study (usability, UX,)
 - Decide how to register the findings
 - Evaluate first individually
 - You need to document the results and include in the deliverables of assignment one
 - Meet and discuss the findings
 - You also need to document the outcome of that meeting
 - The outcome should be a list of pluses and minuses for each web site that you agree on

You Could Document the Results as a Table



Many Ideas Out There

smartprix

Search Products, Brands, Features etc. Search In FIND LOGIN









☐ Below Rs. 5,000 (126)
☐ Rs. 5,000 - Rs. 10,000 (287)
☐ Rs. 10,000 - Rs. 20,000 (175)
☐ Rs. 20,000 - Rs. 30,000 (107)
☐ Rs. 30,000 - Rs. 50,000 (101)
☐ Rs. 50,000 - Rs. 60,000 (27)
☐ Above Rs. 60,000 (16)

BRANDS Clear

Search For A Brand

☐ Samsung (47)
☐ Lenovo (37)
☐ Acer (25)
☐ Alcatel (9)
☐ Amazon (15)
☐ Amtrak (4)
☐ Apple (55)
☐ Asus (39)
☐ BSNL Penta (16)
☐ Blackberry (3)

TYPE Clear

 Micromax Canvas P470 Tablet (WiFi+3G+8GB) Rs. 6,796 ★★★★★ + compare	 Lenovo Tab 2 A7-10 Tablet Rs. 4,849 ★★★★★ + compare	 Xiaomi Mi Pad 7.9 Rs. 12,000 ★★★★★ + compare	 Lenovo Tab S8 Rs. 17,490 ★★★★★ + compare
 Micromax Canvas P480 Tablet (WiFi+3G+8GB) Rs. 6,091 ★★★★★ + compare	 iBall Slide Octa A41 Tablet Rs. 12,999 ★★★★★ + compare	 Dell Venue 7 3000 Series Tablet (16GB+WiFi+3G) Rs. 7,490 ★★★★★ + compare	 Samsung Galaxy Tab 3 Neo SM-T111 Rs. 9,099 ★★★★★ + compare

Summary

- Requirements, User stories, use cases, scenarios
- Interviews
 - Structured and semi structured
- Observation
 - Direct and indirect observation
- Surveys using questionnaires
 - Many types of questions
- Evaluating Prototypes
 - Discussed in more detail later
- Other methods
 - Existing documentation, meetings, workshops
- Exploring the competition/Comparing Web Sites