

Schedule			19-23 Febr	ruary 201
Monday	Tuesday	Wednesday	Thursday	Friday
<b>19 Feb</b> B210 & B211 9:30-12:30	20 Feb open	<b>21 Feb</b> B210 & B211 9:30-12:30	<b>22 Feb</b> B210 & B211 9:30-12:30	23 Feb open
<b>19 Feb</b> B210 & B211 13:30-16:30	<b>20 Feb</b> B210 & B211 13:30-16:30	<b>21 Feb</b> B210 & B211 13:30-16:30	<b>22 Feb</b> B210 & B211 13:30-16:30	<b>23 Feb</b> Digiteo Amphi 14:00-16:30

Mono	lay	Tuesday			
			Wednesday	Thursday	Friday
Introdu Find about	uction out users		Design	Prepare participatory design	Redesign & video pototyping
Eth Desi meth	ics gn ods	Design	Design	Participatory design Workshops	Final presentations 14h-16h30



### Course project

Work in groups of 2-3 a few individual activities, but most in groups

Design brief:

Create a video prototype of redesign of an existing system that meets the needs of real users in a real setting

Use techniques you learned in HCI Bootcamp plus new participatory design and other techniques

Projects involve in-class exercises and homework Attendance is critical!

# Generative Deconstruction Emphasis on Participatory Design You will be the designer ... and the user Deconstruct an existing media system (Spotify or Youtube) I. Uncover critical user problems related to sharing media 2. Create a new, principled design based on co-adaptive instruments and other principles 3. Create your own participatory design workshop 4. Redesign based on user input 5. Present a video prototype on Friday afternoon

How many of you use:	
Spotify to listen to songs?	
Youtube to watch videos?	
Do you share songs?	
Do you share videos?	

One Design Brief – Two topics
Topic A: Sharing Songs Group B: Sharing Videos
How can you improve the process of sharing songs or videos?
First, find out: Do users already share media? If so, to whom? How? What breakdowns do they face? What about user innovations?



Final presentation Friday, 14h00
<ul> <li>I5-minute oral presentation includes:</li> <li>design problem and user profile justify based on user studies</li> <li>design concept explain in terms of design principles</li> <li>video prototype (maximum 5 minutes) story of use, include breakdowns</li> <li>future work how would you extend this to a complete system?</li> <li>5-minute class discussion</li> <li>every group asks at least one question</li> <li>Also due: video prototype, transparencies, final storyboard</li> </ul>

Grades	
HCI Bootcamp valued: Advanced course values:	Process, speed, collaboration Creativity, principled design
Participation Class exercises Extra exercises Final Video Presentation	20 % 30 % 10 % (bonus – you choose) 50 %
Focus on <b>participatory design</b>	techniques

but first, a quiz		









Generating or Collecting	Generating or Collecting design resources			
Designer generates it: Introspection Observation Interviews Lab experiment Cultural probe Technology probe Interactive thread	Designer <i>collects</i> it: Questionnaire Market study Research literature Focus group Logging study Diary study			



# Participatory Design .... focuses on situated interaction between users and technology .... involves users throughout the design process .... is fundamentally generative not evaluative .... values iteration and rapid redesign .... explores breakdowns and the unexpected not just perfection

Multi-disciplinary Design Methods
HCI design techniques are <i>derived</i> from diverse disciplines
No individual technique is best nor can it stand alone
All have advantages and disadvantages, each is influenced by the norms of the parent discipline
We can choose from among these techniques and modify them as needed or create our own

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Multi-Dis	ciplinary	Design M	ethods		
Understand the user	Analyse the user	Invent new ideas	Prototype the system	Evaluate the system	Redesign the system
Introspection Ethnography	Thematic analysis Sociology	<b>Standard</b> <b>brainstorming</b> Design / Psychology	Design brief Design	Design walkthrough Computing/HCI	Generative walkthrough H <sup>4</sup>
Observation, Diary, Logs Human Factors	Breakdown analysis HCI	Video brainstorming HCI	Design concept Design	Lab experiment Psychology	Participatory design
Interview Sociology	User profile Human Factors	Creativity techniques Design/Arts	Function- Interaction table HCI	Field study Sociology	Structured observation H
Questionaire Design/Arts	Personas Human Factors	Wizard of Oz Participatory Design	Design scenario, Storyboard Film	User study Human Factors	Technology probes ∺
Thematic analysis Sociology	Use scenario HCI	Design space Design/Arts	Video prototype HCI	Focus group Marketing	Interactive thread H

Understand the user	Analyse the user	Invent new ideas	Prototype the system	Evaluate the system	Redesign the system
Cultural probe Design/Arts	Task analysis Human Factors	Mindmapping Psychology	Software simulation Computer science	Design heuristics HCI	Design rationale
Contextual inquiry Anthropology	Protocol analysis Cognitive Psychology	<b>'Making</b> strange' Arts	Software prototype Computer science	Design critique ('crit') Design	Improv Com







## Don't forget... Introspection is very, very common but is the technique most susceptible to errors

This is a *design* method but NOT a scientific research method

If you use introspection as part of a design process: follow a protocol do not forget that your opinions and experiences are rarely the same as those of other users seek insights and inspiration, rather than "truth"

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	Intracraction
	Introspection
	The designer tries the system What works, what does not?
	You can do this systematically: Begin with a clearly defined, real task Set aside a limited amount of time
	Make sure that you are not interrupted Begin the task Becord while you talk aloud or take notes
	Analyze what you did: Positive and negative aspects Surprises
	Ideas for making it better



### Design brief

Redesign an existing system for streaming media: songs (Spotify) or videos (Youtube) to address specific problems users face when sharing among friends or colleagues

Ex #1: Peer introsp	ection
Each person should pe	rform both roles:
Task: Think of the las share a sc If possible, recr What inte Did you f	st time you were not able to easily ong or video eate what happened step by step. erface problems did you experience? ind a work around?
As the 'user': As the 'observer': Both (independently):	Describe each step out loud, especially user interface problems Observer what happens and take notes Identify at least three problems with the user interface

Ex #1: Peer II	ntrospection
Due:	20 February
to:	<u>mciolfi@lri.fr</u> , mackay@lri.fr
subject:	ADIS Ex# I: observation
Include:	User:
Observer:	[] Spotify [] Youtube
Software:	[] Mac [] PC [] other
System:	Recreate your steps from the last time
Task:	you shared a song or video
Observer's	notes
User's descr	iption



How to ask questions	
The form of the question provides the form of the response If you want specific, real stories, you must ask for them	
If not, you will get vague general answers that provide little help with design	
Careful! We are not conducting marketing surveys Our goal is to better understand users to design a better system	



Critical incident technique reminder
Focus on a recent, memorable event: Describe the initial situation Tell what happened, step-by-step, in as much detail as possible: What did you do? How did the system respond? What did you do next?
Was the situation resolved successfully? If not, what did you do?
Later: Was this typical? If typical, find a different example If unusual, find a typical example



Name three other interview techniques

Name three other interview techniques	
"Bright spot" - when something really positive occurred Recent event - describe the most recent event Recent time - describe what happened at a recent specified time	

Ex #2: Critical incident interviews
Each person should conduct at least two interviews
Look for stories about sharing a song or video, especially what went wrong. Find out what software they used and get a detailed, step-by-step description of what happened.
Afterwards, identify key interface problems.

Ex #2: Critica	al incident interview	
Due: to: subject:	20 February <u>mciolfi@lri.fr</u> , mackay@lri.fr ADIS Ex#2: interview	
Interviewer: Question I: Answer:	Interviewee:	
Answer:		



Questionnaires
Goal: Obtain data from a large number of users
Careful! Users may not respond honestly Questions may not really address the questions you think they are (external validity problem)

# Interviews vs. questionnaires The same question types work for both but the goals are different and the analysis is different Advantages of interviews: easier to get in-context information easier to get real-world stories easier to probe deeply into an interesting situation Avantages of questionnaires: can ask lots of people simple questions are easy to tabulate often used for opinions



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What information are you seeking? Ask only what is necessary Frame the questions correctly Who is the audience? 50 - 1000 users ... or more? How will you send your survey? Most often with a survey web app But sometimes paper is better How will you analyze your results? Consider the statistical analysis first

Question styles
Background Age, profession, years in the job
General information How many years have you used this email system?
Directed questions How many messages did you receive yesterday?
Multiple choice I move messages to project folders o never o rarely o often o always





### One more reminder

Directed, specific questions are easist to code belong at the beginning of the questionnaire provide the fewest interesting results

Open, general questions are very difficult to code and analyze may provide very interesting responses but also risk giving stereotypical responses

# Design vs. Marketing Designers need facts to inform the design examples of problems, stories about events, data about use Marketing wants opinions what people like and do not like, what they think they want Emphasize facts first, then opinions Directed questions (specific or open-ended) often elicit facts General questions (specific or open-ended) often lead to opinions

# Consider a series that builds:

Create a series of questions for which each can be classified as:

Direct or Open? Specific or General? Factual or Opinion? Interview or Questionnaire? (or both) Beginning or End? (or anywhere) Design-oriented or marketing-oriented?









