

Diary Studies

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CS-570 Introduction to Human-computer
Interaction



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From Last Week

How do you select the best measure for your task?

Can't you just refine parameters to make it seem like you saw a significant change?

Will this always work even if you have a limited audience to analyze?

When are z-tests applicable?

What are p values?

More From Last Week

What kind of variability can exist in these measures and how do you control for it?

Physiological measures in projects?

Practice problems on the website by Thu.

Project overview on Friday

Diary Studies

Looking Back At CI

What are some requirements for a CI?

Direct observation

You need access to the user's context

We used think-alouds to prompt users to talk in a CI, if we are not with the user, how do we prompt them?

Diaries!

The Goal

Asking people to observe and report their own actions. Providing people with multiple ways of capturing data.



Source: alistapart.com

Example Situations

Privacy-sensitive tasks

(e.g., finances, health, weight loss)

Spontaneous tasks

(e.g., incoming communication)

Mobile situations

(e.g., interface use on the move)

Restricted access situations

(e.g., law enforcement)

Tasks with high sampling rate

(e.g., changes throughout the day)

Four Key Methods

Diary studies (Alaszewski, 2006)

Cultural probes (Gaver et al., 2004)

Experience sampling (Hecktner et al., 2006)

Day reconstruction method (Kahneman et al., 2004)

Diaries

A diary is a document created by an individual who maintains regular recordings about events in their life at the time that those events occur

Diaries can be in many forms

Physical diaries

Digital diaries

Shared/public diaries (e.g., Facebook, Twitter)

Time Diaries

Focuses on how individuals utilize their time in different activities

Different from a general diary in that it has a time focus and temporal regularity

Recording is tied to time or events:

Individuals record entries on a regular basis

When events occur, noting time

Or both

Feedback Diary

Focus on the events that interest the researcher

Users record data when events occur or when thresholds are met

More accurate and objective

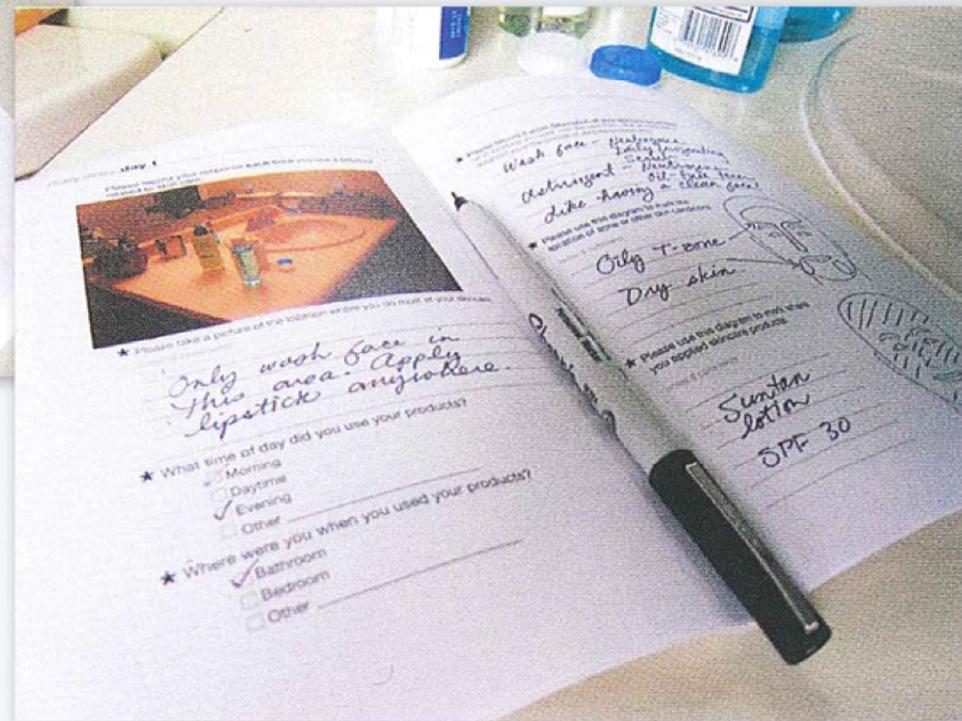
Elicitation Diary

Focus on events that are meaningful to the user

Users reflect on what happened in a later interview

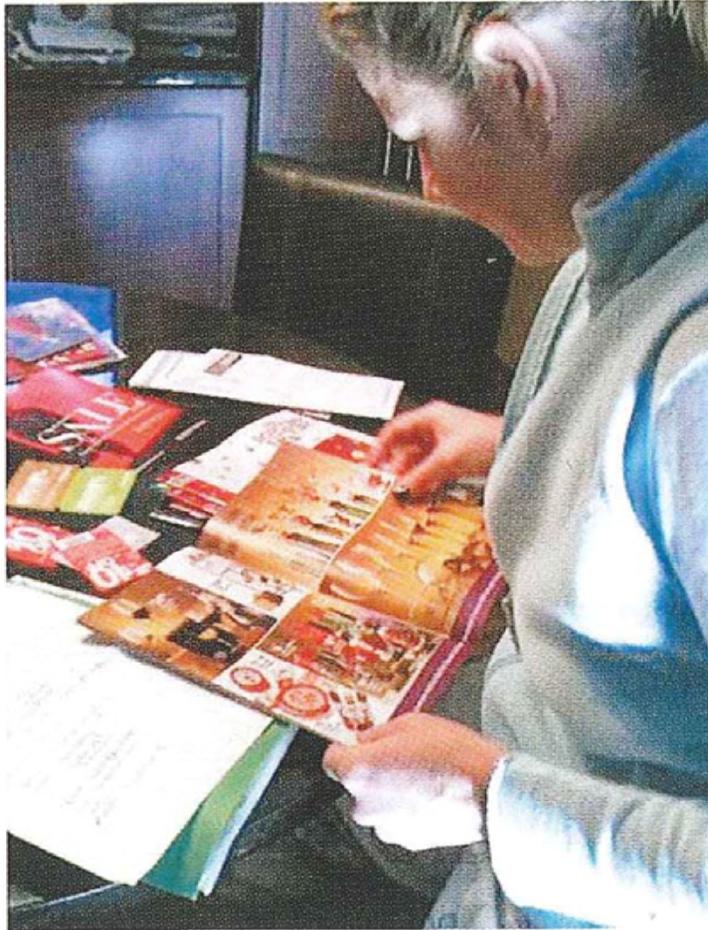
More representative of users' feelings

Diary Examples



* Martin & Hanington

Diary Examples



Kate N Sat Dec 18, 2010 / 11:22 AM /

Combing catalogs

I am going through catalogs for ideas and sales. Kohls sends o great shopping pass cards bit they are dated so I am also addii up my list to make sure I get everything o need in one trip.

Q1 What is this a picture of?

organizational tool

Q2 Why do you want to share it with us?

I still like using catalogs for gift Ideas. They also help me organize what I sti need to shop for. I usually only shop one or two days at stores so I need to determine whether I need to go to a mall and or a strip center with stores lik marshalls and sports authority etc.

Tags

Inspiration



org tool

analog

Comments



nielsen
RESEARCH

October 25, 2011

Hi there in your Nielsen TV Ratings Viewing Diary.

Recently, you, or someone in your home, completed the survey and we were very grateful to do so. Thank you!

The enclosed mailing is to thank you for your name and diary information will be kept you anything because you returned your diary.

Keeping your diary is very easy. When your TV is on, please follow the instructions in the Diary and be a few minutes a day. Anyone in your home may also watch how little or how much your household is watching TV in the evening of everyone's children, and so on.

Also, there may have been some changes in the Nielsen TV Ratings. Please make a special effort to report the changes in the Diary.

Your survey starts **THURSDAY**.

Please don't start your diary until Thursday before you mail back your Diary. The Diary if you have any questions please call our assistance web site, listed on your TV or be looking forward to receiving your TV.

Sincerely,
Paul Donato
Paul Donato
Chief Research Officer, The Nielsen Co.

P.S. If you have more than one TV or TV set, a reminder to enter them you received. Thank you.

We're with you.

SATURDAY MORNING

Time	Channel	Day	Start	End	Name of Program or Movie	Who	How
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							
12:00							
1:00							
2:00							
3:00							
4:00							

SATURDAY AFTERNOON

Reminder: Please be sure to mark "X" and draw a line down the columns above for any person watching or listening.

STEP 5 Here is how to return your diary or diaries when your diary survey is over:

- Please include the flap and seal it over your name and address on the front cover.
- Please drop the diary or diaries in the mail (the postage is prepaid).
- Please return every diary, even if little or no TV was watched.

MOISTEN HERE AND SEAL TO TV ON FRONT COVER

Nielsen diary

Other Types of Diaries

Unstructured diaries

Structure diaries

Survey-structured diaries

Usability test diaries

Problem report diaries

Questions?

Cultural Probes

Cultural Probes

First used by Gaver et al.

A way of capturing information in context

Capture experience as it takes place in its natural setting

Capture repeated experiences

Can be used as

Design inspiration

Qualitative research

When to Use Cultural Probes

When you're exploring ideas!

Also, when your users are:

- On the move

- Experiencing events intermittently

- In unpredictable environments

- In restricted-access environments

- Not comfortable with your observing them

- Open to too much influence

Example Situations

Capture patients' recovery experience over time

Study a traveling film crew

Changes in music preferences of runners

How nurses respond to emergency calls

Understand people's mobile phone use!

Process

Recruit a small number of participants

Hold face-to-face briefings, introduce the probe, explain project goals and required probe tasks

Participants carry out probe tasks over a specific period of time (usually a week to 3 months)

Conduct intermediary interviews to check-in, verify the quality of the data

Receive probes either by mail or during a final interview

Creating the Probes

Identify the kind of information you need and what people might be familiar and comfortable with

Be innovative—anything can be used as a probe

Giving participants choice of how to record their thoughts and feelings is a good thing—combine multiple methods

Things to Watch For

Recruitment is extremely important

You can't monitor participants closely

Follow-up interviews are crucial

Open-ended questions are most informative

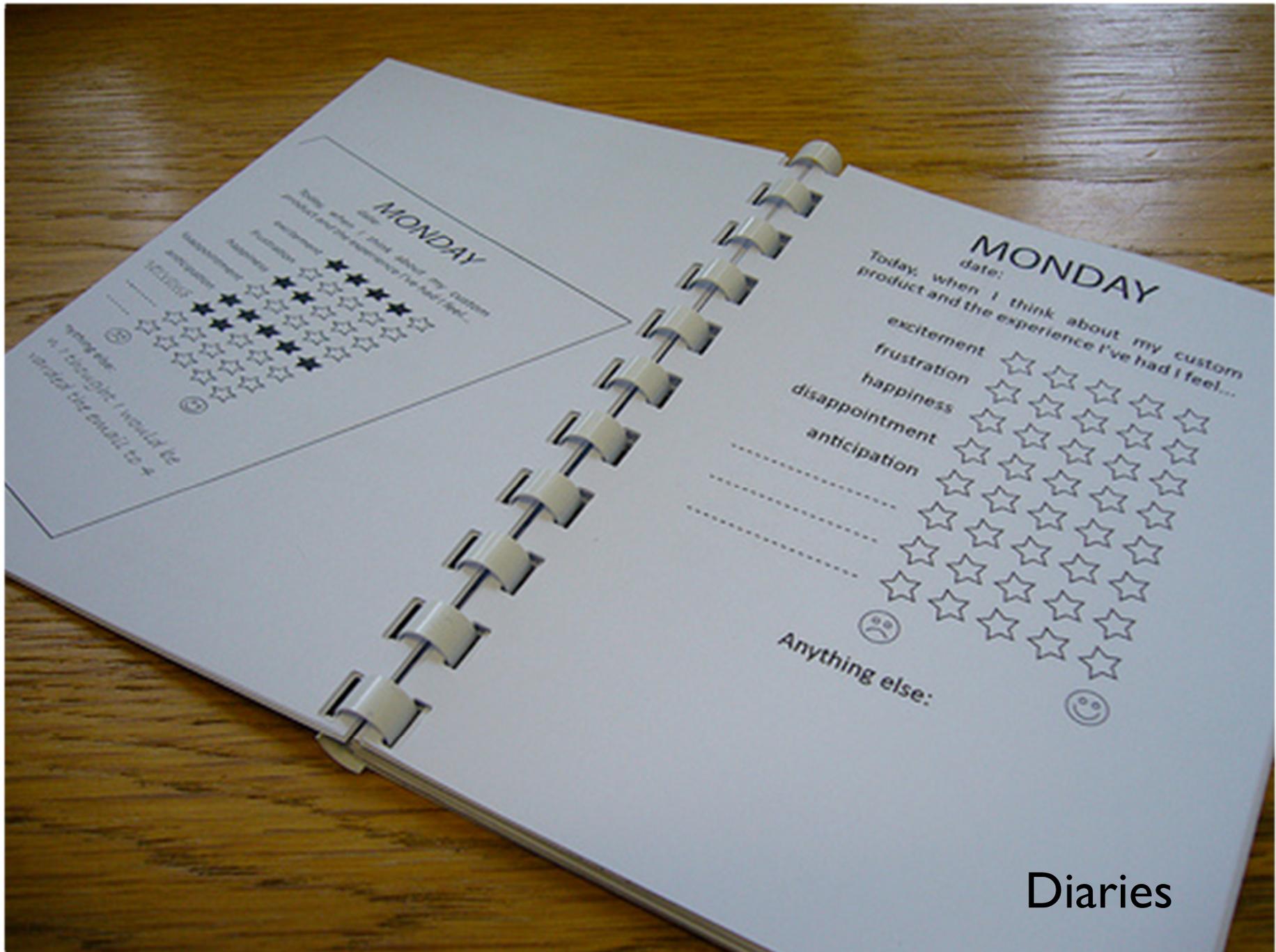
Clarify how experiences unfolded

Users can be shy

Find ways to put them at ease

Example Probes:

Anything can be a probe!



Diaries



Disposable camera with instructions



Listening glass



Probe packages



Cheap digital voice recorders



To Do Lists

**Wat is uw favoriete
apparaat?**

1. Camera
2. Brother elektrische
schrijf machine
3. video
4. naai machine

Groeten,

Pauline

14.6.97

Bill Gaver & Ton
Computer Related Design
Royal College of Art
Kensington Gore
London SW7 2EU
U.K.

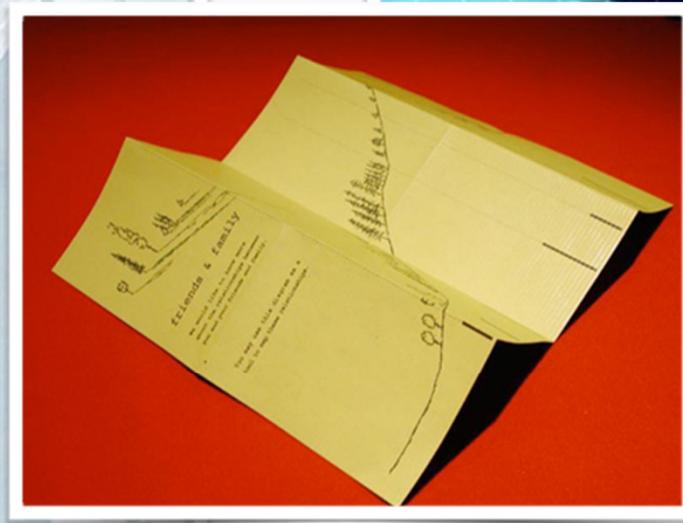
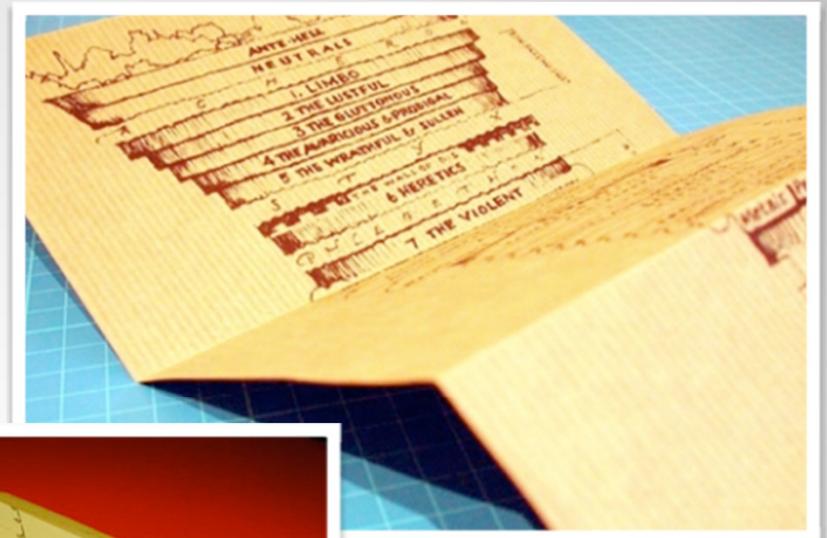
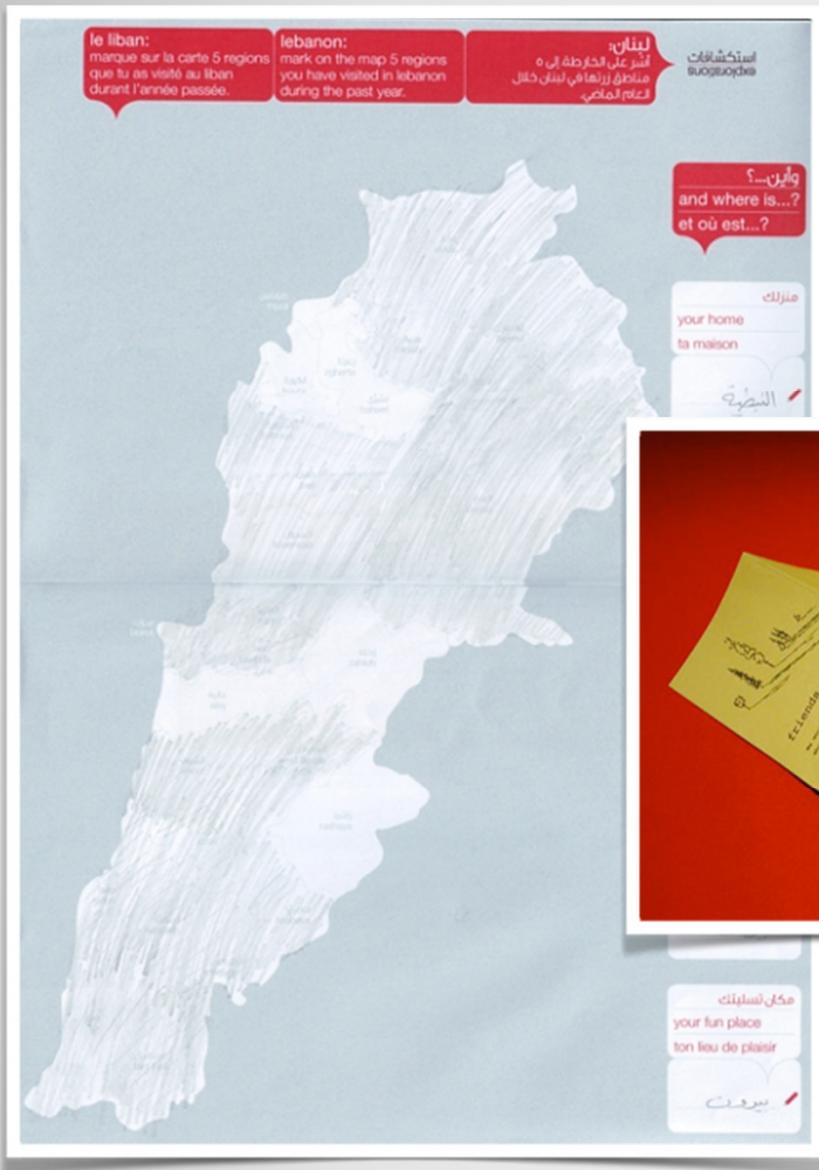


17 OCT 1997

Postcards



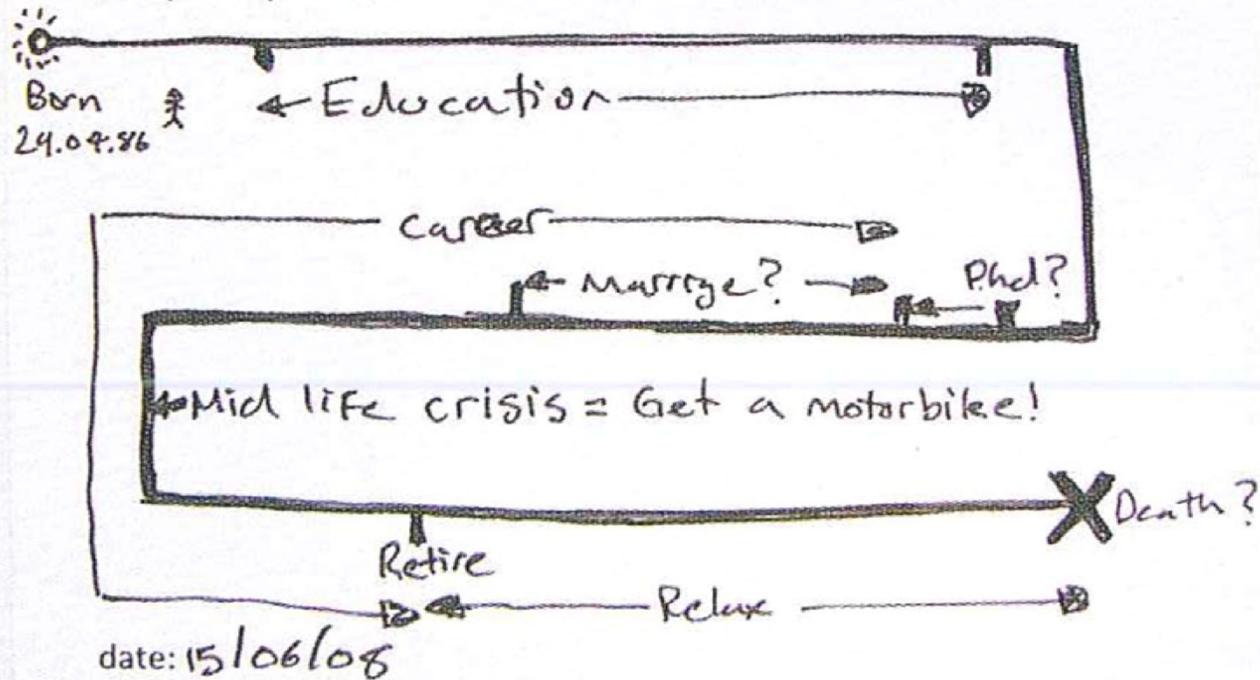
Timely instructions



Physical or social maps

DRAW IT:

A map of my life...



Time maps



Conversation Kits



Probe packages



Long House and Bill Gower
Computer Related Design
Ingeni Group of Inc
Kamagata Lane
London SE17 2JZ UK

Probe packages



Probe packages



Text messaging

What are you doing?

140

update

Archive Replies Recent



shlarsen The Importance of Social Media Marketing and Why you Should Master It: <http://tinyurl.com/2qphx3> about 20 hours ago from Netibes ☆ 🗑



shlarsen <http://tinyurl.com/22qoro> 12:22 PM November 02, 2007 from TwitBin ☆ 🗑



shlarsen How to Write Kickass Twitter Posts 12:22 PM November 02, 2007 from TwitBin ☆ 🗑



shlarsen Cleaning the house before the babysitter gets here November 01, 2007 from Netibes ☆ 🗑



shlarsen Anyone have any recommended netvibe widgets? November 01, 2007 from Netibes ☆ 🗑



shlarsen I am trying out netvibes (<http://www.netvibes.com/>) afternoon after a recommendation from a colleague and and so far. 02:28 PM November 01, 2007 from Netibes ☆ 🗑



shlarsen On the train home. 02:14 PM November 01, 2007 from Netibes ☆ 🗑

Hi, [your profile](#)



shlarsen



Discover more with Twitter Tracking!

Currently

The Importance of Social Media Marketing and Why you Should Master It: <http://tinyurl.com/2qphx3>

Notifications [add device](#)

- phone
- web-only

Add a comment

What you want to say...

Your name

Your email

Your website (Optional - But we do follow)

Submit

Tweeting and blogging

Questions?

Experience Sampling

Allows the designer to collect snapshots of behaviors, interactions, thoughts, or feelings

Self-reported data in real time at random/limited intervals

Involves substantial number of measurements

Data captured in situ – in context and in the moment of the experience

Developed in the 80s to study happiness

Also called ecological momentary assessment (EMA)

A “beeper study”

“Document your feelings right now.”

“List the communication products you are currently using.”

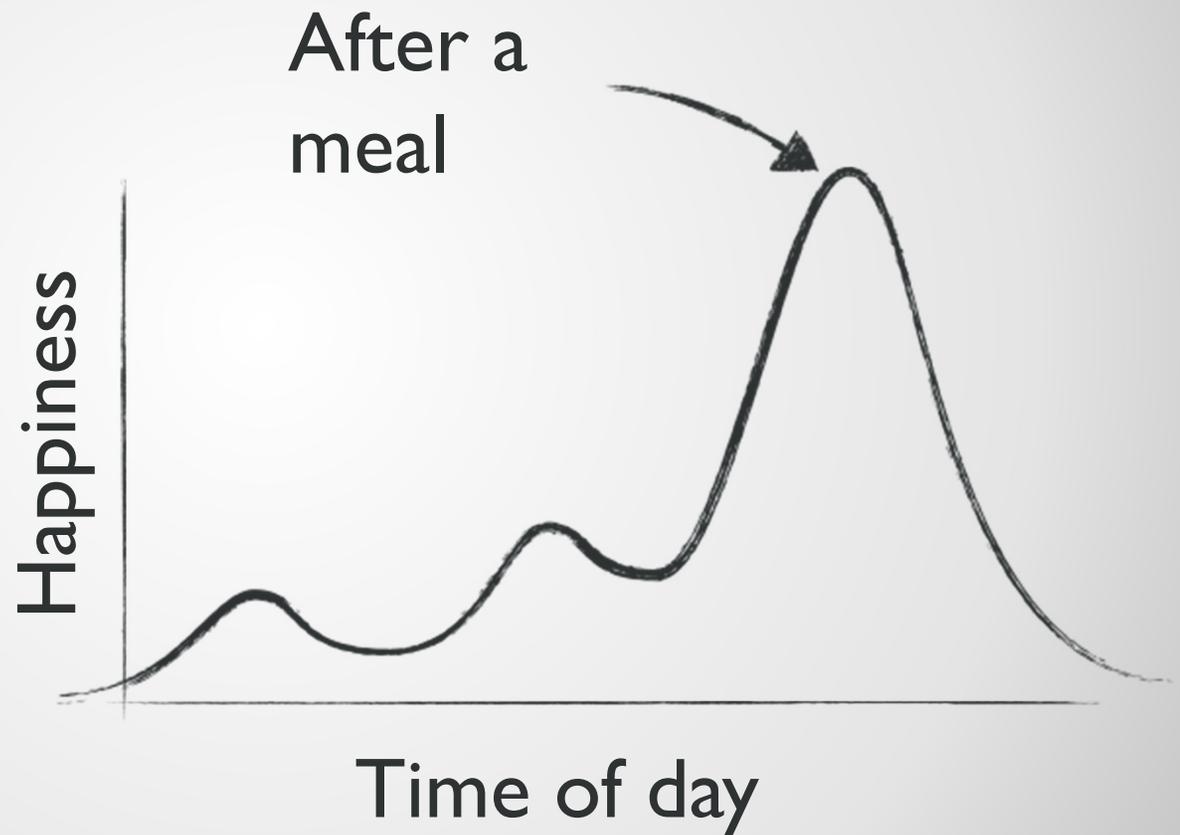
Barrett & Barrett developed an Experience Sampling Program (ESP) that used Palm Pilots

Automatic vs. manual mode

ESM Examples



ESM Example



Questions?

Day Reconstruction

“...assesses how people spend their time and how they experience the various activities and settings of their lives, combining features of time-budget measurement and experience sampling”

—Kahneman et al.

DRM Process

Respondents revive memories of the previous day by constructing a diary of a sequence of “episodes”

They describe each episode by answering questions about the situation and their feelings

The goal is to provide an accurate picture of the experience associated with activities and circumstances

Pros and Cons of DRM

Seeks to reduce errors and biases of recall by eliciting specific and recent (day-old) memories

Overall more efficient than ESM

Imposes less respondent burden

Doesn't disrupt normal activities

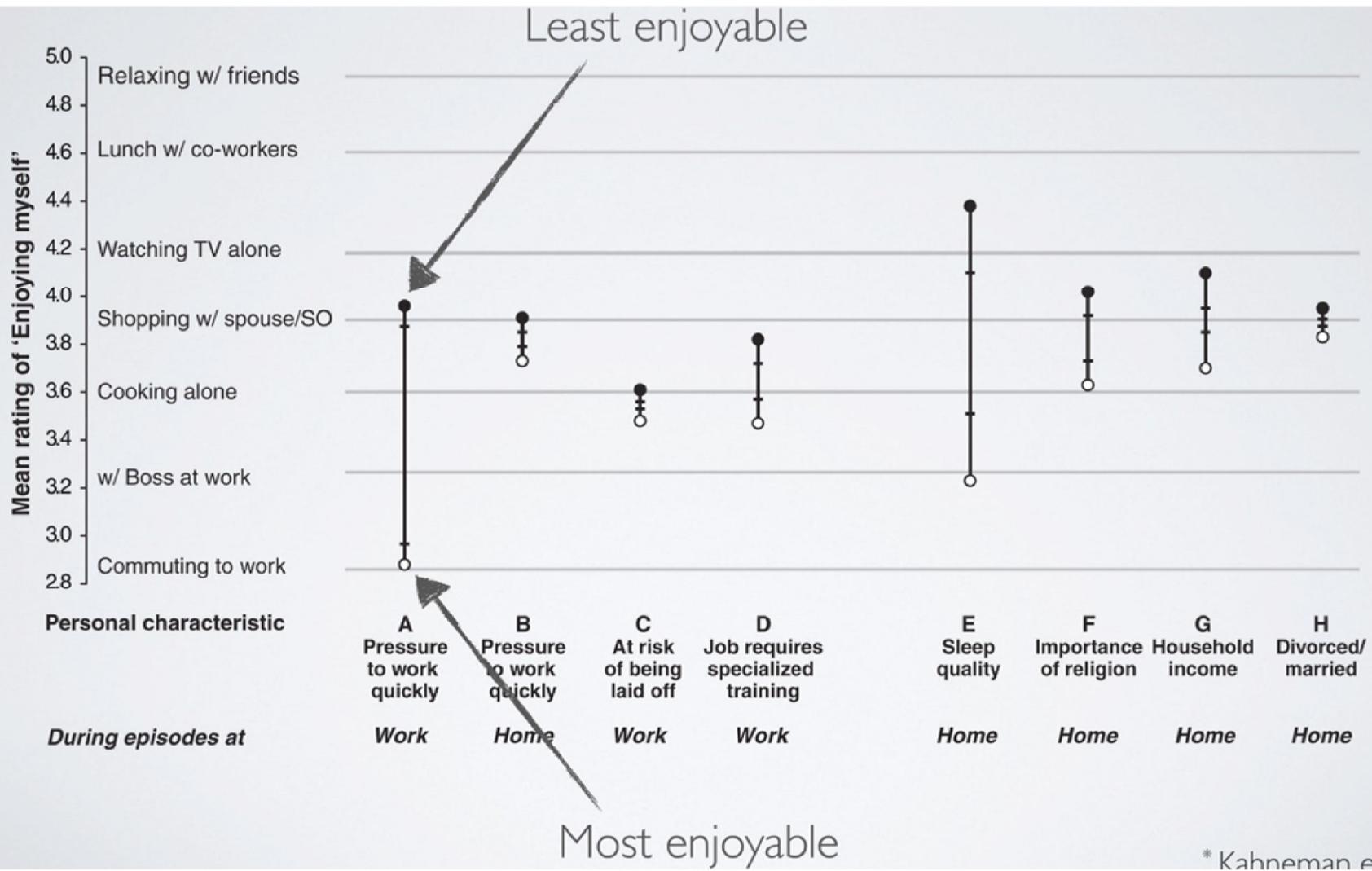
Provides an assessment of contiguous episodes rather than sampling of moments

Provides time-budget information not collected in ESM

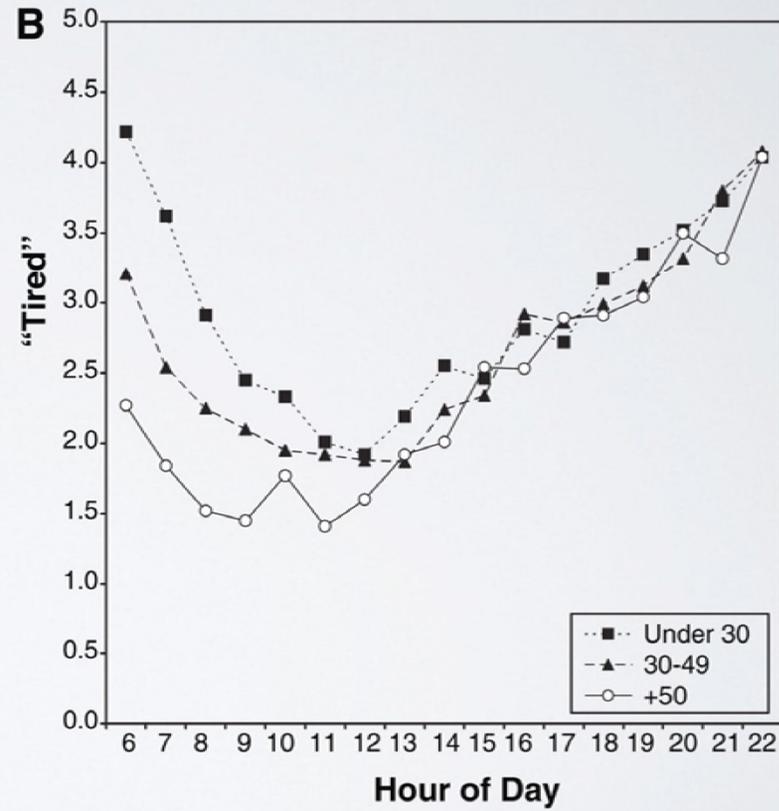
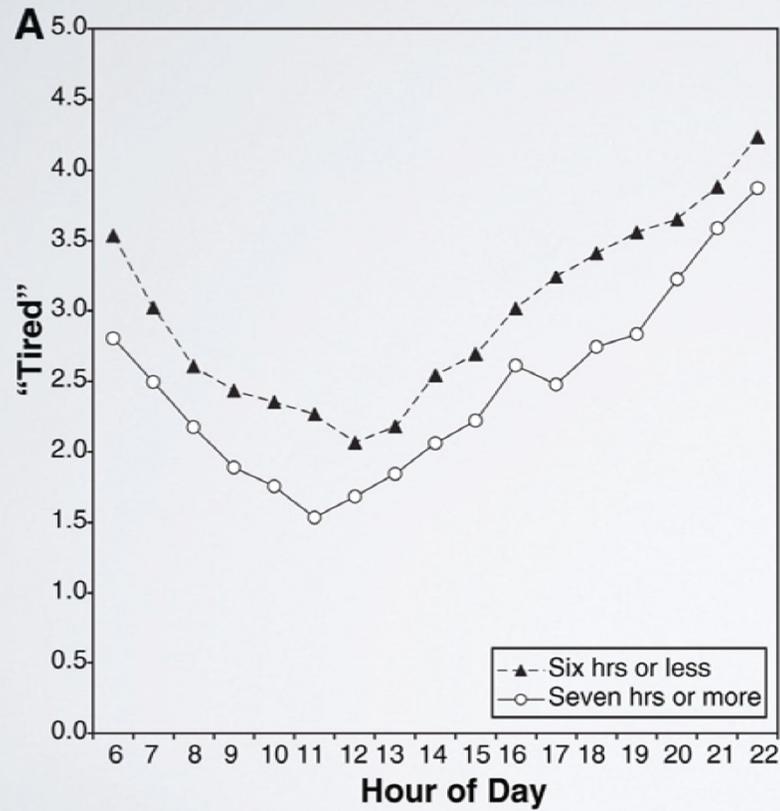
Affect by Situation

	Mean affect rating					Mean hours/day	Proportion of sample reporting
	Positive	Negative	Competent	Impatient	Tired		
Activities							
Intimate relations	5.10	0.36	4.57	0.74	3.09	0.2	0.11
Socializing	4.59	0.57	4.32	1.20	2.33	2.3	0.65
Relaxing	4.42	0.51	4.05	0.84	3.44	2.2	0.77
Pray/worship/meditate	4.35	0.59	4.45	1.04	2.95	0.4	0.23
Eating	4.34	0.59	4.12	0.95	2.55	2.2	0.94
Exercising	4.31	0.50	4.26	1.58	2.42	0.2	0.16
Watching TV	4.19	0.58	3.95	1.02	3.54	2.2	0.75
Shopping	3.95	0.74	4.26	2.08	2.66	0.4	0.30
Preparing food	3.93	0.69	4.20	1.54	3.11	1.1	0.62
On the phone	3.92	0.85	4.35	1.92	2.92	2.5	0.61
Napping	3.87	0.60	3.26	0.91	4.30	0.9	0.43
Taking care of my children	3.86	0.91	4.19	1.95	3.56	1.1	0.36
Computer/e-mail/Internet	3.81	0.80	4.57	1.93	2.62	1.9	0.47
Housework	3.73	0.77	4.23	2.11	3.40	1.1	0.49
Working	3.62	0.97	4.45	2.70	2.42	6.9	1.00
Commuting	3.45	0.89	4.09	2.60	2.75	1.6	0.87
Interaction partners							
Friends	4.36	0.67	4.37	1.61	2.59	2.6	0.65
Relatives	4.17	0.80	4.17	1.70	3.06	1.0	0.38
Spouse/SO	4.11	0.79	4.10	1.53	3.46	2.7	0.62
Children	4.04	0.75	4.13	1.65	3.40	2.3	0.53
Clients/customers	3.79	0.95	4.65	2.59	2.33	4.5	0.74
Co-workers	3.76	0.92	4.43	2.44	2.35	5.7	0.93
Boss	3.52	1.09	4.48	2.82	2.44	2.4	0.52
Alone	3.41	0.69	3.76	1.73	3.12	3.4	0.90
Duration-weighted mean	3.89	0.84	4.31	2.09	2.90		
% time > 0	97%	66%	90%	59%	76%		

Enjoyment

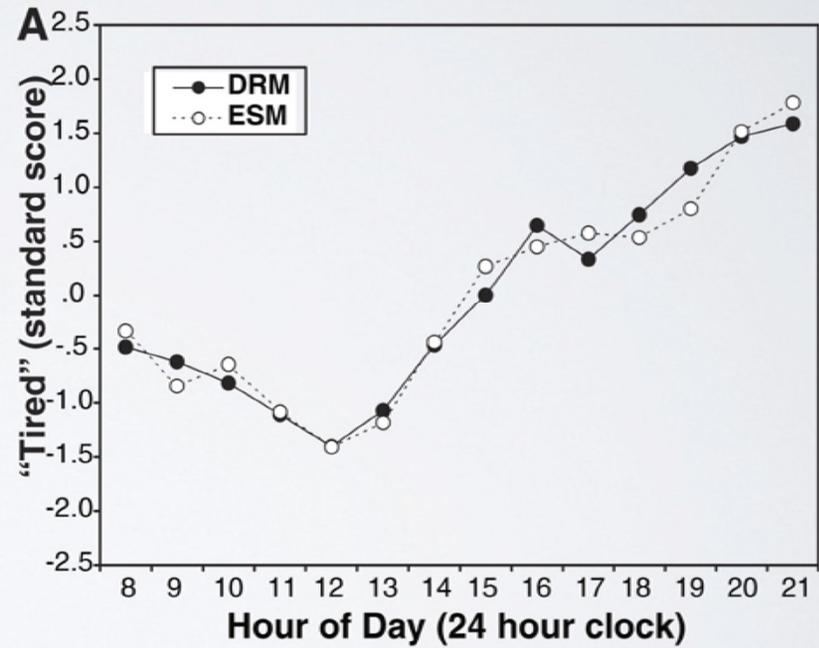
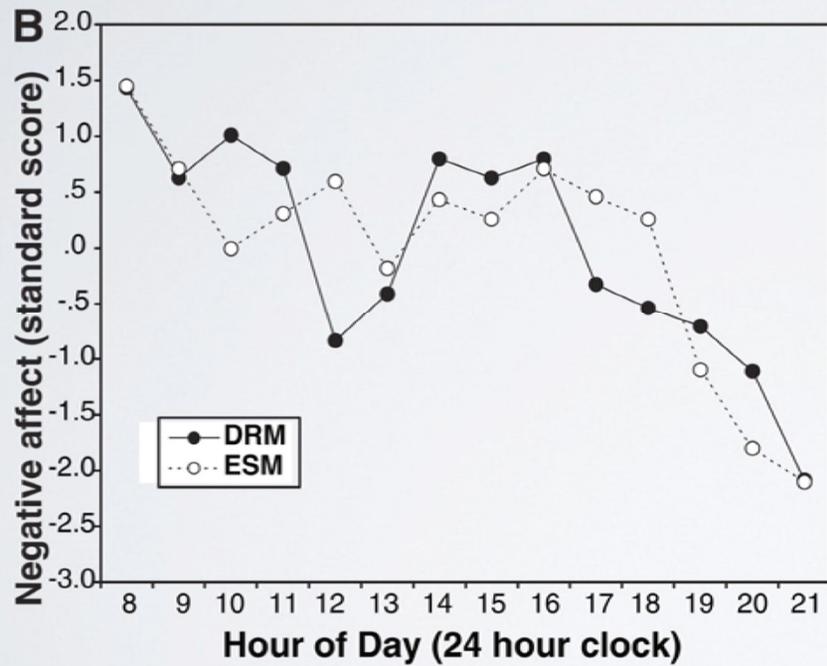


Diurnal Patterns



* Kahneman et al.

Comparison With ESM



Questions?