



..... Qasion Tools

From Data To Meaning

AHO Diploma Project in Interaction Design, 2012 by Morten Knutsen
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Erik Kessels: "Photography in abundance".
A boy looking through one million pictures,
printed from one days uploads on flickr.

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Storytelling is the untangling of, and bringing order to, the chaos of actual experience and packaging it in a way that is usable for yourself and other people going forward.
.....

Jonathan Harris, artist and programmer

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Introduction

Looking for meaning in large amounts of data relating to digital photography produced by groups of people.

This project is about dealing with the enormous amount of documentation we are producing about our lives today. The information gathered is increasingly digital, in the form of photos and traces left by the devices and services we use every day, and much of it is put online.

In this way the Internet is becoming our memory. The capacity of this immense brain seems to have no limitation, and it does not forget. It keeps information of individuals, networks of friends and collectives that are bigger than nations. Finding ways to navigate through this wealth of data to in search of meaning seem to be one of the great challenges facing us today and in the future.

Another challenge is that a lot of data never make it into the cloud, but are stuck on hard drives and memory cards that have a life span of around five years. Memories that might have great value to someone are lost forever. A reason for this might be that we lack effective ways to structure and share such information.

My project puts itself in the field of navigating and organizing large datasets to look for meaning. The initial limit I have defined is to work with sets of data made by groups of people during specific experiences. It also begins to suggest ways to deal with the seemingly endless stream of data coming from our digital companions.

The tagline during my work has been “Storytelling tools for groups of travellers”. With this in mind, I have made a digital toolbox that focuses on how to work with events that produce spikes in the amount of content produced and explore how to help groups tell stories they have experienced, together.

In my diploma program I defined as a goal to create digital tools in the form of pieces of software, not to design a new system or service ready for implementation. I have created the tools by working with real data, mostly from a study trip to London with a group of students.

This report describes some of my process, the actual tools I have made and possibilities for how they can be devolped and used further.



The amount of information produced is increasing rapidly, and more and more of it is digital. Infographic from article by Jonathan Good, www.1000memories.com

The projects aim is create spesific tools, rather than to design a completely new sevice.



Group photo in Armenia

.....*Process*.....

Mapping existing services

Looking at relevant properties of existing services, to get a better overview of some areas my project touch upon.

Early in the project, I did an analysis of other services that I found interesting to know more about before starting my own work. All the concepts I have looked at involve communication between two parts, relaying some form of "story". The stories have different sizes, positions in time, and number of collaborators.

The first thing I looked at (Fig 1.) was the number of people on each side of communication through the different media. I found that almost all the services are made to let single individuals transmit information from themselves to smaller or bigger groups of people. The clear exception is Wikipedia, where the articles have no defined senders, but can be written and updated by anyone. Tracks, which is an iPhone app that let groups share photos to a common track among friends during experiences, is the only other service in the "many-to-many" field. This tells me that there might still be room for digital tools that aims for sharing content as a group, rather than as individuals.

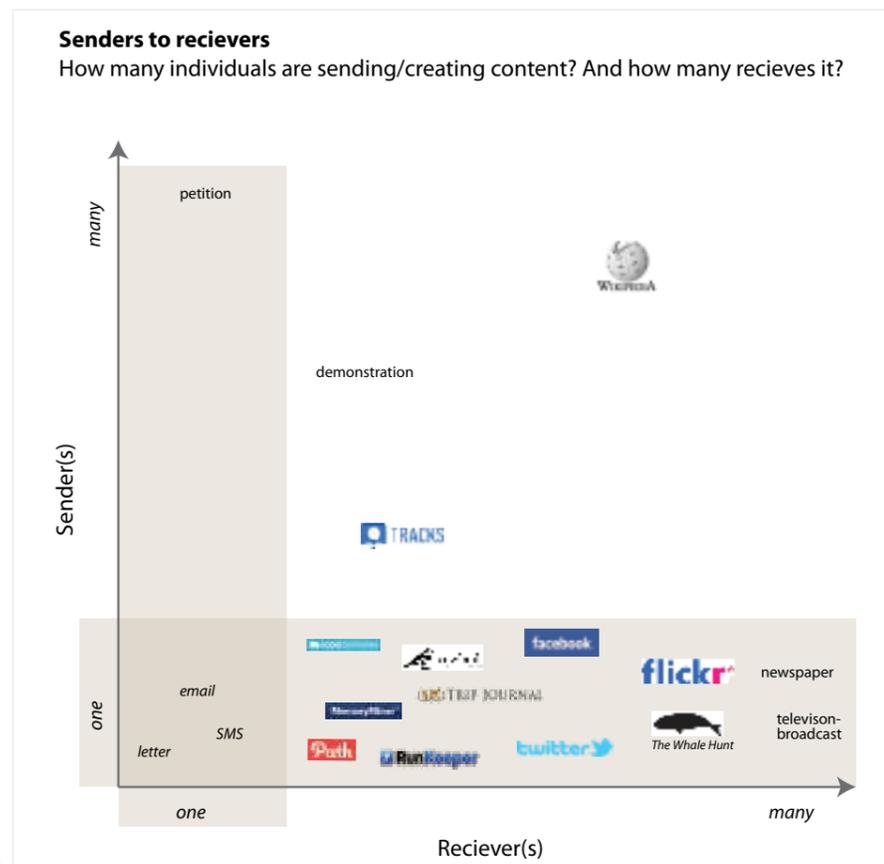


Fig 1.

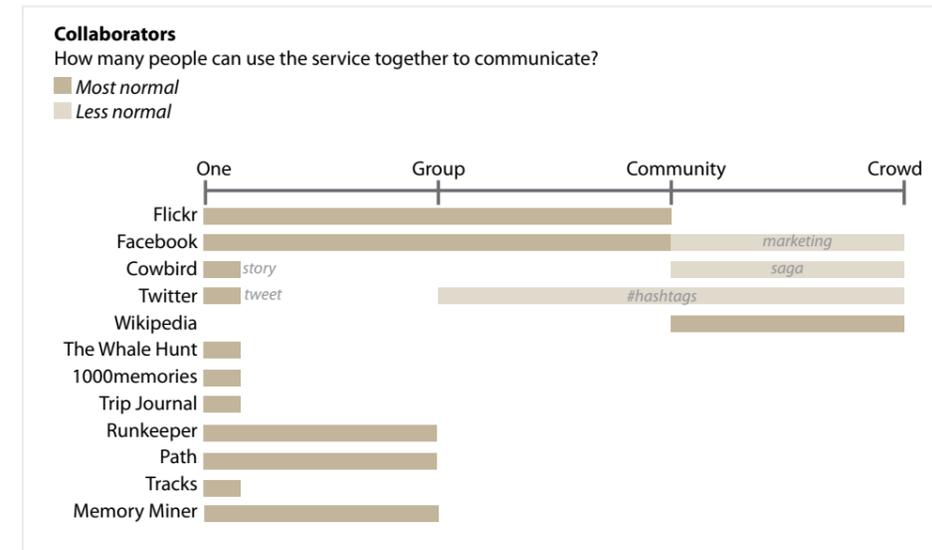


Fig 2. An annotated mapping of how people can organize as communicators with different services.

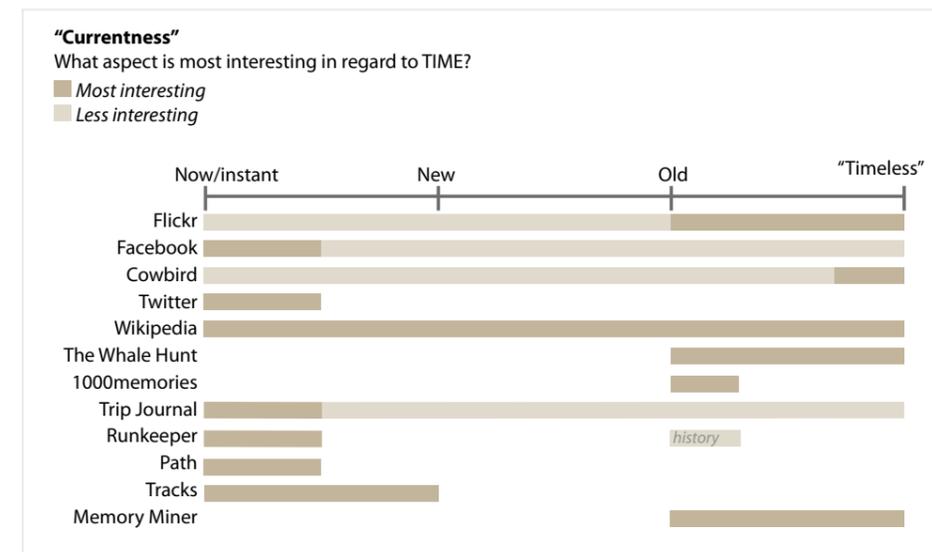


Fig 3. Mapping the different media to look at if speed (instant/new) or depth (old/timeless) is weighted amongst the users.

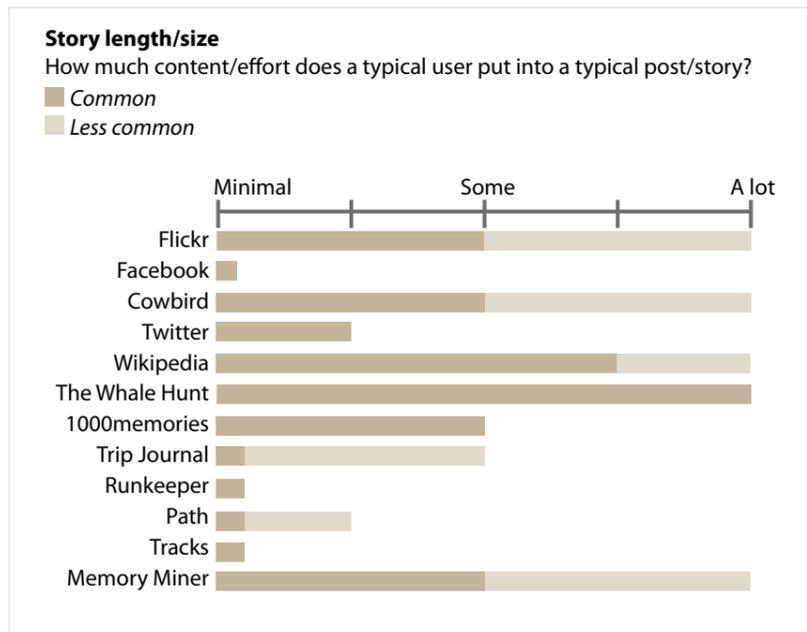


Fig 4. Mapping the perceived amount of effort users put into content before publishing on different services.

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There might still be room for digital tools that aim for sharing content as groups, rather than as individuals.

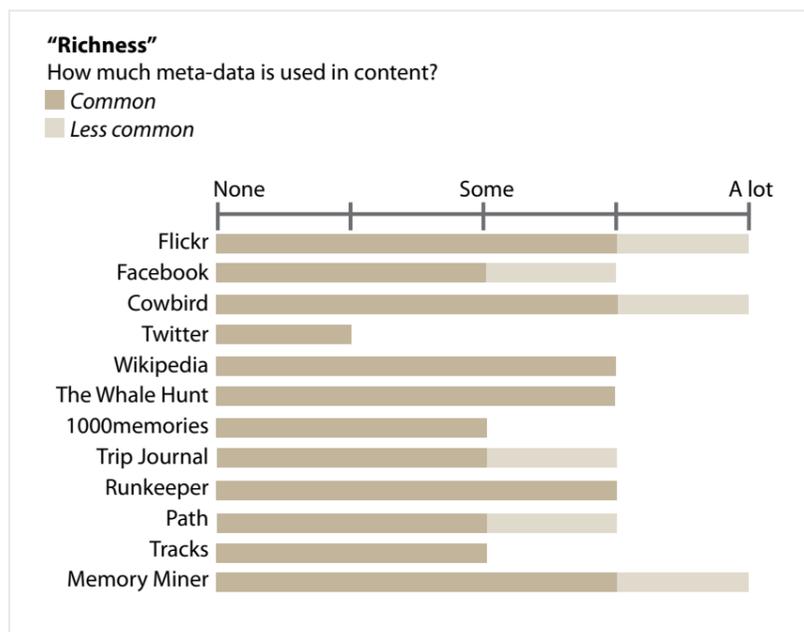


Fig 5. Checking to see if the services care about meta data.

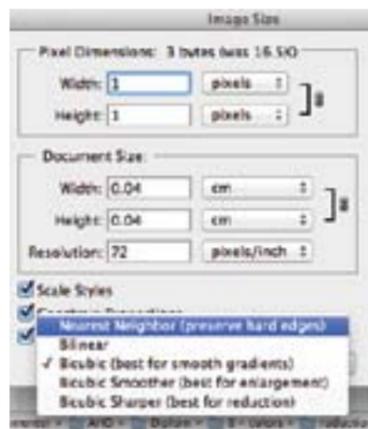
The values represented in the mappings are my approximations on the different aspects, and are made to get an impression of the themes I chose to look at. All the services, except Wikipedia are described in my program, so I will not repeat that here.

Colors

How to represent images by a single color.

When working with images as sets of data, I wanted to be able to remove the focus from the motifs of the pictures, but still have a connection to the original image. Using a single color to represent an image would be useful for making simple interfaces, and to be able to see patterns in the data when viewing large amounts together.

Finding the one color that represents an image turns out to be a quite difficult task that many has attempted before me, with varying success. Here are my attempts.



Settings in Photoshop for scaling images.

Photoshop method 1

The perhaps easiest way is to take the average color of all the pixels in the image. I started by doing this in Photoshop, by converting the images down to 1x1 pixel and using the color of that pixel. Photoshop have several different methods for resampling the pixels that will give two different outcomes. The "Bilinear" and "Bicubic" methods will take the real average of the colors, but tend to get very grey or brown (a bit like mixing all the colors in a painting set). The "Nearest Neighbor" will give more random outcomes, and appears hit-and-miss.

Processing

Next I experimented by writing a little program in Processing, that sorts all the pixels based on brightness and on color. While this gave some interesting results, it seemed hard to find a generic method to find the most "significant" color of an image. It turns out to be a hard task for computers to predict what humans would deem a "significant" color, as this is related to context and motif, as well as color intensity and contrasts etc. The program could definitely be developed further, but seemed like it would take too much effort to get results that would be really useful.

Processing sketch:



Original.



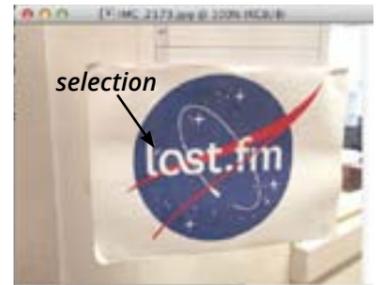
Pixels sorted: bright to dark.



Pixels sorted: bright to dark, and red - green - blue.

Photoshop method 2

After some further research, I found a method that gave a quite consistently decent result. By choosing a small sample near the centre of the image, and then finding the average color of this, there was a good chance to hit some representable color. I let an automated batch process in Photoshop run through all the images from London to used them in the tools.



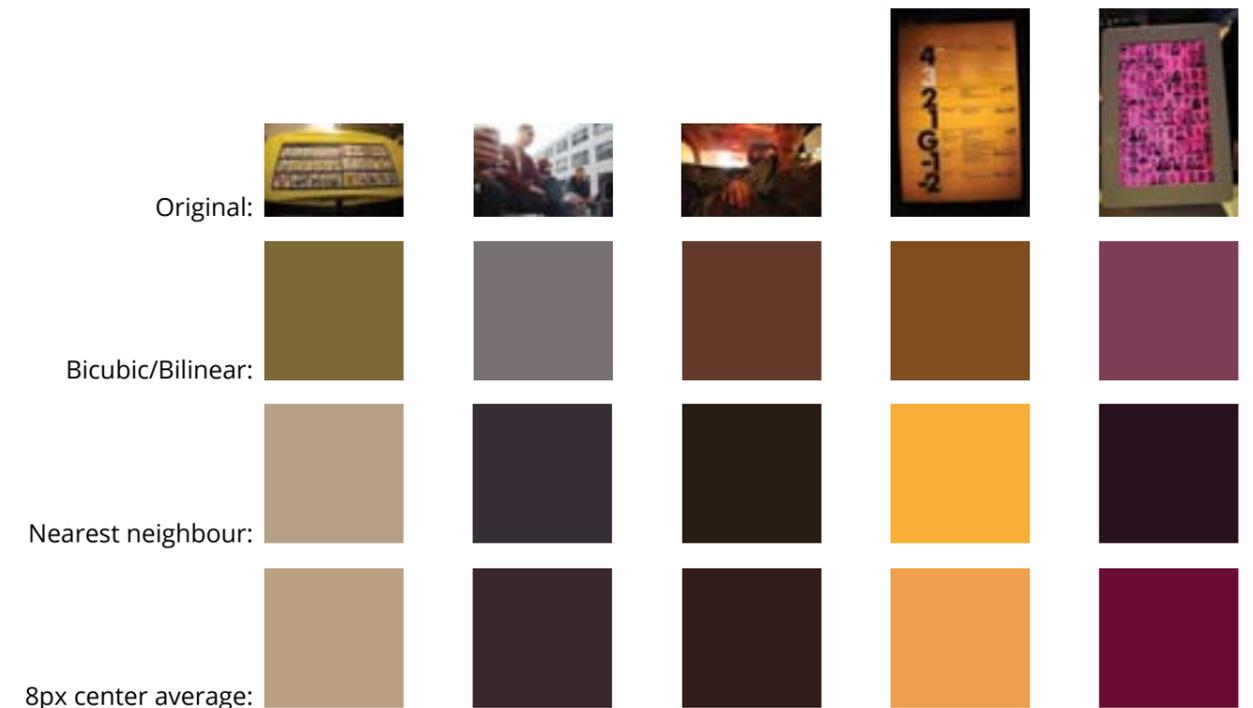
Ideally, I would like to put some restraints on the resulting colors, to avoid very white or very black colors if there are other alternatives in the image. Another solution would be to find more than one color per image, and work with them in other way to get more representational colors.



result:

The process of representing an image as one color turns out to be a quite difficult task.

Comparison of the methods:

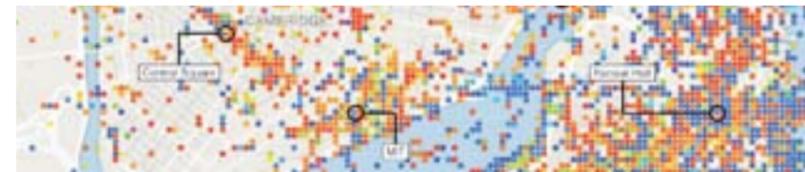




Early experiment with color reduction in Photoshop.



Inspiration 1: Dribbble.com reduces all submitted artwork into 8 colors and makes them searchable. (Image: "Coach's Eye hat" by Joe Dearman).



Inspiration 2: "Boston summer colors". Mapping average colors of Flickr photos. By Andy Woodruff for The Boston Globe.



Inspiration 3: "Poésie de supermarché" by Caroline Fabès.



Some of my final results of color reduction of some images from London, one color per photo.

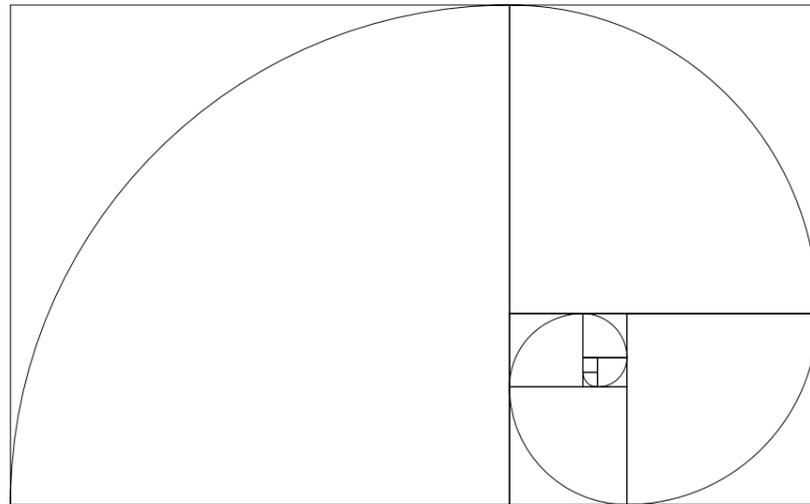
Grids

Exploring ways to stack elements in effective and useful ways.

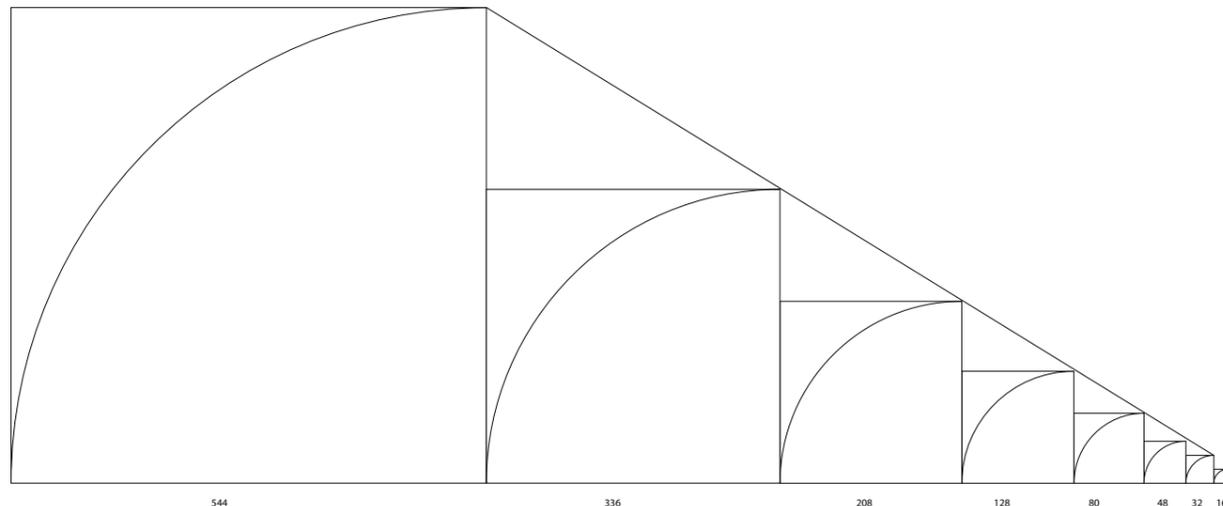
Displaying large numbers of elements on a page requires a system of visual organization. Here I will describe some experiments and research I did on how to order content in stacks and grids. I wanted to be able to work with different sized elements, both to take in account variations in picture shape and size, and to be able to use size to emphasize some elements over other. I also wanted to look at how layouts affect perceived order, sequence and narrative.

Fibonacci spiral

First, I tried to make a system based on the *golden ratio* that is the key to making a lot of regular patterns, like the Fibonacci spiral.



Fibonacci spiral



Building blocks for grid experiment, with corresponding sizes in pixels.

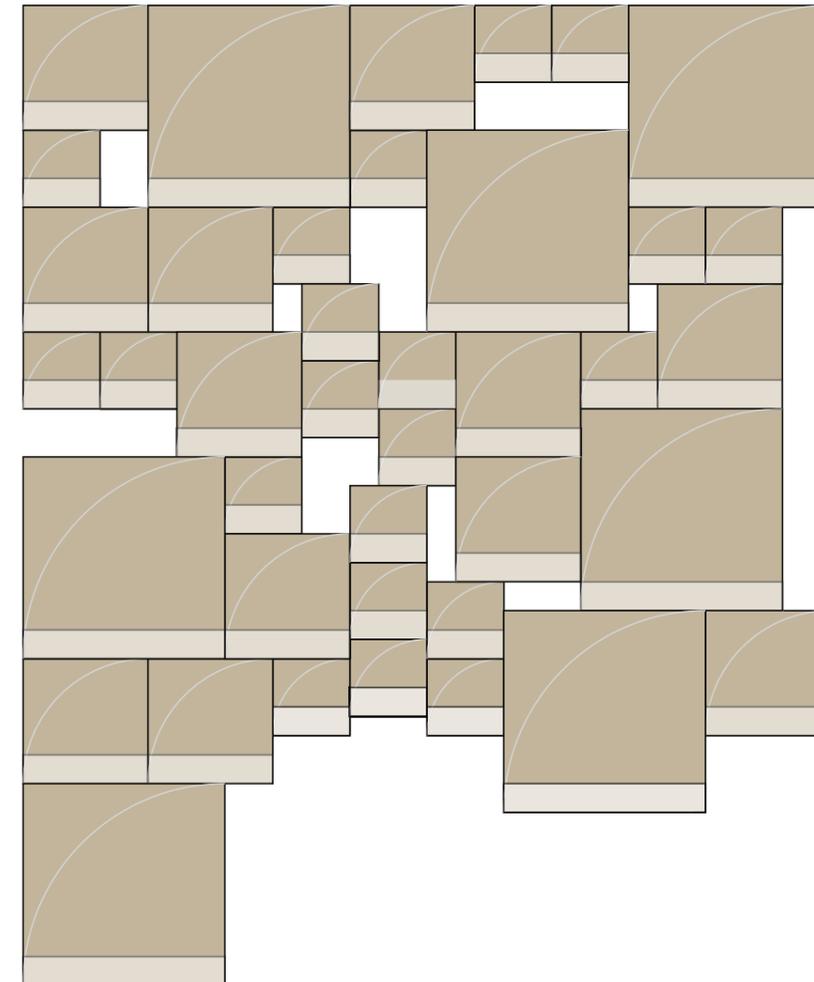
This number is famous for appearing everywhere in nature as well as in culture like design, architecture and music.

$$\varphi = \frac{1 + \sqrt{5}}{2} = 1.6180339887 \dots$$

The golden ratio.

By placing random blocks on a page and stacking them by a simple rule from top left and down, it turns out that the resulting grid leaves quite a bit of white space, and appears “messy” as there are many lines that does not align. While this might be useful for some purposes like collages and mood boards, it breaks continuity and impression of specific order. Adding smaller blocks could fill the white spaces, but would require scaling content down so it could not be recognized.

Also, the blocks in this case are squares, so most photos would have to be cropped to fit within the blocks.

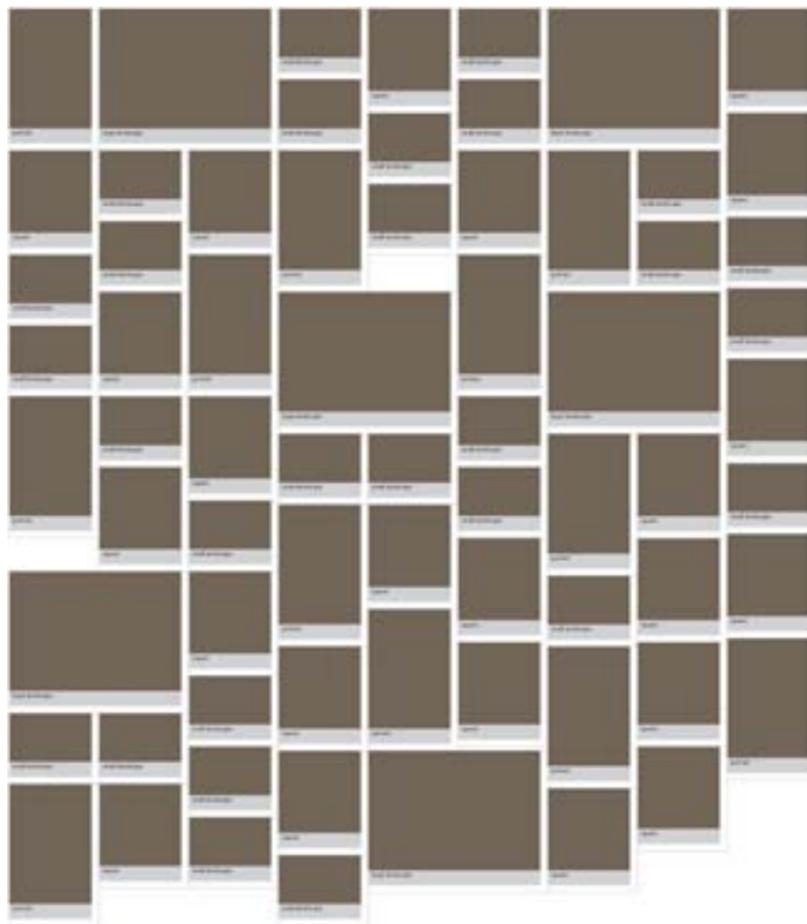
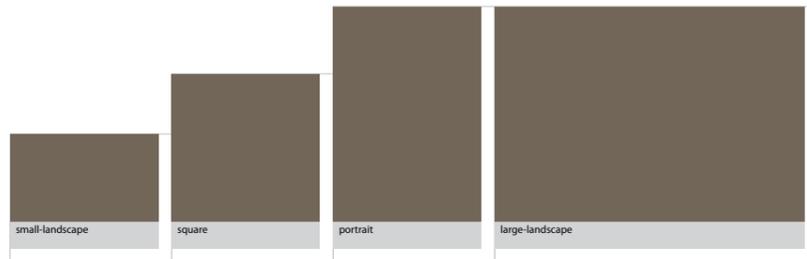


Stack of random blocks of three different sizes, result is quite staggered with a lot of white space.

Columns

Next, I looked at different websites that display content in structured grids, and found that using fixed widths for the elements is a big trend online (“Pinterest-style”).

I made a system around this kind of stacking, and found that it works good to display “streams” of elements, especially in pages where scrolling up and down is a part of the navigation. It does not imply a strict sense of order amongst the content, but is quite effective at emphasizing some blocks, by letting elements fill more columns. This also makes it easier to account for content with different sizes.



Building blocks and a stack in column-based grid with margins and one element with double width. Based on <http://inventorystudio.co.uk>.

Rows

To keep a sense of sequence in the content, I found that keeping a strict grid, with aligned rows seems to work best. There might be a cultural reason for this, as this follows the reading direction of western text.

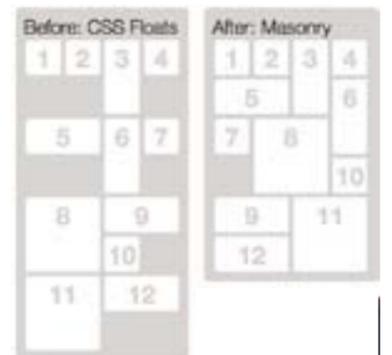


Pictures in a regular, row based grid that keeps the sense of sequence.

.....
How does visual organization affect perceived order, structure and narrative?
.....

Masonry

When I started working with code to put this into use, I found some very helpful tools that were able to produce most of the results I wanted in HTML. First the Masonry script that stacks elements neatly. And then Masonry’s “big brother” called Isotope that includes more methods for ordering, and can also help out with filtering and rearranging, which I ended up using for some of my tools.



Masonry in action.

..... *Case*

Case: London study trip

Joining a group of students to London, to get hold of the digital documentation they produced.

One of the reasons for choosing to work with this theme is that I have travelled quite a lot together with groups of people, for longer and shorter periods of time and distances. One of my observations before starting this project was that activities like travel lead to a heightened activity of documentation. People want to remember their experiences, and photography is a great media for assisting memory.

Another observation is that intentions of sharing pictures with each other are often broken, and content of interest to others in the group are stuck on memory cards or hard drives forever (or until the media stops working - which is not that long).

Why London?

When the interaction class at AHO was going to London for a study trip in March, it seemed like a great chance to get a fresh set of pictures to work with. This was interesting type of event, in that it involved several people, doing things both together and in smaller groups. People were responsible for their own tickets, so they arrived and left London at different times, which would produce a complex dataset. And of course, the educational content was also a great bonus.



Preparations

Before the trip, I issued a survey to the class, to prepare for the types of data they would produce, and to learn about their habits and attitudes towards photography and sharing. I also asked them if I could collect their pictures and any other data they would produce, after the trip. Everyone agreed to give me all or most of their data. The survey and the results are included in the appendix, so I will not go into detail of that here.

I did not put any restrictions or leads on how they should behave, or what to document. As described in my 'model for refining experience into stories' in my program, I believe that documentation should be non-intrusive to the real experiences. What is considered intrusive, is of course very subjective, and creating tools for documentation that people accept and enjoy could be the basis of whole other project.

I asked people with smartphones if they would run an app called OpenPaths in the background, to collect GPS-coordinates. This app is designed to preserve battery life and privacy. It produces less accurate results than other location tracking apps, but is possible to use, as it does not drain a phone in a couple of hours. Due to some technical issues, only one person other than me turned in location-data. One person also gave me a list of checkins from Foursquare.

Observations

While in London I noticed a couple of things in relation to how the class was documenting. First, taking pictures becomes a social thing, and a sort of culture within the group arises. People start taking pictures of specific things, and new situations result from the use of cameras. For example when people started taking pictures of other people taking pictures.

The other thing, that became even more clear when I started looking at the photos back home, is that the rate of documentation is not always related to the "interestingness" of the event taking



place. In many cases it is the opposite; people take pictures when they are bored and need something to do. Other times the event was so interesting that people forgot, or it was inappropriate or not allowed to take pictures.

These were interesting points that I wanted to keep in mind in the later work.

Data Collected

After the trip, the documentation was collected from the participants. Here is the first overview of the material for the rest of the project, and a description of the gathering process.

Finding ways to relay the data is obviously a problem, as it took me over a week in total before I managed to get hold of all of it. This was also something that I wanted to look into in my further work.

List of the data collected:

- 2642 Photos from 13 cameras/mobiles
- 24 Videos
- About 300 GPS points
- 1 Sound clip



First break-down of the data collected, and the people producing them.

Process of gathering data:

Tuesday 6th:

1. Magnus sent me pictures and a soundfile as a zip-file via Sprend.com.

Wednesday 7th:

Sent out mail about gathering the data.

Thursday 8th:

2. Silje sent me pictures via Dropbox.

Friday 9th:

Gathered in classroom,

3. Rudolf gave me files from camera (sd-card).

4. Wei uploaded pictures to Flickr (brings original files later).

5. Mosse gave me a selection of files from her iPhone.

6. Taira gave me all her photos, including pictures from staying with a friend, by usb-stick.

Monday 12th:

Gathered in classroom,

7. Andreas gave me a zip-file of pictures, and foursquare-checkins on usb-stick.

8. Peder gave me pictures on a hard disk.

9. Wei tried to send me pictures by Dropbox, but syncing failed.

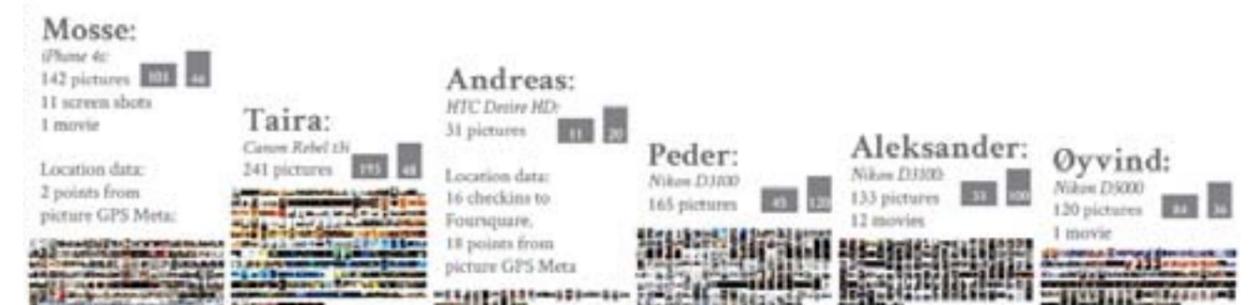
Wednesday 14th.

Gathered last pictures in classroom,

10. Aleksander gave me pictures on a usb-stick.

11. Øyvind gave me pictures on a hard disk

12. Received all of Wei's pictures on from sd-card.



Behind the data

After receiving the data, I started the task of organizing and understanding the meta data in all the pictures. Because of all the different camera types, the process of mining this data for the useful points, was a quite big task that took more time than I had hoped.

Using ExifTool (described in the appendix), I got the data into a spreadsheet, to get an overview and finding out what categories could be useful, and which was not. In the end ExifTool was used again with a filter I made to extract the relevant data into a comma separated files that could be used later.

S	A	C	U	F	G	H	I	J	K	L	M	N	O	P
Sourcefile	ExposureTime	Number	ISO	ShutterSpeed	ApertureValue	FocalLength	MeasuredEV	TargetApert	TargetExpos	MeasuredEV	CameraDist	FocusDist	FocusDist	AF Area
1	IMG_8120.JFIF	30-Jan	2.8	800	Jan-32	2.8 17.0 mm	5	3.8	Jan-32	5	Horizontal [r 0.76 m]	0.7 m	0.7 m	Single-p
2	IMG_8121.JFIF	30-Jan	2.8	800	Jan-32	2.8 17.0 mm	5	3.8	Jan-32	4.875	Horizontal [r 0.47 m]	0.39 m	0.39 m	Single-p
3	IMG_8122.JFIF	Jan-40	2.8	1000	Jan-41	2.8 17.0 mm	4.88	2.8	Jan-40	4.875	Horizontal [r 0.44 m]	0.42 m	0.42 m	Single-p
4	IMG_8123.JFIF	8-Jan	2.8	1600	8-Jan	2.8 17.0 mm	1.88	2.8	8-Jan	1.75	Horizontal [r inf]	81.91 m	81.91 m	Single-p
5	IMG_8124.JFIF	Jan-40	2.8	1250	Jan-41	2.8 17.0 mm	4.5	2.8	Jan-40	4.5	Horizontal [r 5.86 m]	4.46 m	4.46 m	Single-p
6	IMG_8125.JFIF	Jan-40	2.8	1250	Jan-41	2.8 17.0 mm	4.62	2.8	Jan-40	4.625	Horizontal [r inf]	12.87 m	12.87 m	Single-p
7	IMG_8126.JFIF	Jan-40	2.8	1600	Jan-41	2.8 17.0 mm	4.58	2.8	Jan-40	4.625	Horizontal [r 1.81 m]	1.56 m	1.56 m	Single-p
8	IMG_8127.JFIF	30-Jan	2.8	1250	Jan-32	2.8 17.0 mm	4.38	2.8	Jan-32	4.375	Horizontal [r 2.57 m]	2.13 m	2.13 m	Single-p
9	IMG_8128.JFIF	30-Jan	2.8	250	Jan-32	2.8 17.0 mm	6.75	2.8	Jan-32	6.25	Horizontal [r inf]	81.91 m	81.91 m	Single-p
10	IMG_8129.JFIF	30-Jan	2.8	320	Jan-32	2.8 17.0 mm	6.38	2.8	Jan-32	6.25	Horizontal [r inf]	81.91 m	81.91 m	Single-p
11	IMG_8130.JFIF	30-Jan	2.8	400	Jan-32	2.8 17.0 mm	6.25	2.8	Jan-32	6.25	Horizontal [r 0.33 m]	0.32 m	0.32 m	Single-p
12	IMG_8131.JFIF	1/320	8	100	1/320	8 17.0 mm	14.38	8	1/323	15.125	Horizontal [r inf]	12.87 m	12.87 m	Single-p
13	IMG_8132.JFIF	1/640	11	100	1/640	11.3 17.0 mm	16.38	11	1/645	16.625	Horizontal [r 5.86 m]	4.46 m	4.46 m	Single-p
14	IMG_8133.JFIF	1/640	11	100	1/640	11.3 17.0 mm	16.38	11	1/645	16.625	Horizontal [r 5.86 m]	4.46 m	4.46 m	Single-p
15	IMG_8134.JFIF	1/160	5.6	100	1/160	5.7 17.0 mm	12.38	5.7	1/161	12.25	Horizontal [r inf]	81.91 m	81.91 m	Single-p
16	IMG_8135.JFIF	Jan-80	2.8	640	Jan-83	2.8 17.0 mm	6.5	2.8	Jan-81	6	Rotate 270 C 4.46 m	3.58 m	3.58 m	Single-p
17	IMG_8136.JFIF	Jan-40	2.8	160	Jan-41	2.8 17.0 mm	7.62	2.8	Jan-40	7.5	Horizontal [r inf]	12.87 m	12.87 m	Single-p
18	IMG_8137.JFIF	30-Jan	2.8	125	Jan-32	2.8 17.0 mm	7.75	2.8	Jan-32	7.75	Horizontal [r inf]	12.87 m	12.87 m	Single-p
19	IMG_8138.JFIF	Jan-50	3.5	100	Jan-49	3.5 17.0 mm	9.25	3.6	Jan-51	7.875	Horizontal [r inf]	12.87 m	12.87 m	Single-p
20	IMG_8139.JFIF	1/320	8	100	1/320	8 17.0 mm	14.5	8	1/323	15.125	Horizontal [r 1.81 m]	1.56 m	1.56 m	Single-p
21	IMG_8140.JFIF	1/320	8	100	1/320	8 17.0 mm	14.5	8	1/323	15.125	Horizontal [r 1.81 m]	1.56 m	1.56 m	Single-p
22	IMG_8141.JFIF	1/320	8	100	1/320	8 17.0 mm	14.5	8	1/323	15.125	Horizontal [r 1.81 m]	1.56 m	1.56 m	Single-p
23	IMG_8142.JFIF	1/320	8	100	1/320	8 17.0 mm	14.5	8	1/323	15.125	Horizontal [r 1.81 m]	1.56 m	1.56 m	Single-p
24	IMG_8143.JFIF	1/400	9	100	1/395	9 30.0 mm	14.88	9	1/406	14.5	Rotate 270 C 2.57 m	2.13 m	2.13 m	Single-p
25	IMG_8144.JFIF	1/250	6.3	100	1/256	6 17.0 mm	14.12	6	1/256	14.25	Horizontal [r 12.87 m]	5.86 m	5.86 m	Single-p
26	IMG_8145.JFIF	1/160	6.3	100	1/166	6.4 17.0 mm	12.62	6.3	1/161	13	Horizontal [r inf]	12.87 m	12.87 m	Single-p
27	IMG_8146.JFIF	1/160	6.3	100	1/166	6.4 17.0 mm	12.62	6.3	1/161	13	Horizontal [r 1.16 m]	1.07 m	1.07 m	Single-p
28	IMG_8147.JFIF	1/250	5.6	100	1/256	5.7 17.0 mm	12.88	5.7	1/256	12.5	Horizontal [r 4.46 m]	3.58 m	3.58 m	Single-p
29	IMG_8148.JFIF	1/1600	2.8	100	1/1579	2.8 50.0 mm	13.5	2.8	1/1625	13.375	Horizontal [r 2.57 m]	2.13 m	2.13 m	Single-p
30	IMG_8149.JFIF	1/1200	2.8	100	1/1204	2.8 25.0 mm	13.12	2.8	1/1204	14.125	Horizontal [r 4.46 m]	3.58 m	3.58 m	Single-p
31	IMG_8150.JFIF	1/1250	2.8	100	1/1228	2.8 50.0 mm	13.25	2.8	1/1290	13.125	Horizontal [r 2.13 m]	1.81 m	1.81 m	Single-p
32	IMG_8151.JFIF	Jan-00	2.8	100	Jan-48	2.8 30.0 mm	13.88	3.8	Jan-48	14.125	Horizontal [r 2.13 m]	1.81 m	1.81 m	Single-p
33	IMG_8152.JFIF	Jan-00	2.8	100	Jan-48	2.8 30.0 mm	14	2.8	Jan-48	14.125	Horizontal [r inf]	12.87 m	12.87 m	Single-p
34	IMG_8153.JFIF	Jan-00	2.8	100	Jan-58	2.8 20.0 mm	14.5	2.8	Jan-51	15	Horizontal [r 2.13 m]	1.81 m	1.81 m	Single-p
35	IMG_8154.JFIF	Jan-00	2.8	100	Jan-56	2.8 17.0 mm	14.38	2.8	Jan-80	13.125	Horizontal [r 0.28 m]	0.28 m	0.28 m	Single-p
36	IMG_8155.JFIF	Jan-00	2.8	100	Jan-58	2.8 17.0 mm	14.5	2.8	Jan-51	14.625	Horizontal [r inf]	12.87 m	12.87 m	Single-p
37	IMG_8156.JFIF	Jan-00	2.8	100	Jan-56	2.8 17.0 mm	14.38	2.8	Jan-80	13.125	Horizontal [r 0.33 m]	0.32 m	0.32 m	Single-p
38	IMG_8157.JFIF	Jan-00	2.8	100	Jan-58	2.8 17.0 mm	14.5	2.8	Jan-51	13.5	Horizontal [r 0.32 m]	0.3 m	0.3 m	Single-p
39	IMG_8158.JFIF	1/320	6.3	100	1/322	6.4 50.0 mm	13.62	6.3	1/323	14.125	Rotate 270 C 2.57 m	2.13 m	2.13 m	Single-p
40	IMG_8159.JFIF	Jan-00	2.8	100	Jan-96	2.8 50.0 mm	14.88	2.8	Jan-96	15.375	Rotate 270 C 2.57 m	2.13 m	2.13 m	Single-p
41	IMG_8160.JFIF	Jan-00	2.8	100	Jan-56	2.8 50.0 mm	14.25	2.8	Jan-80	15	Rotate 270 C 2.13 m	1.81 m	1.81 m	Single-p
42	IMG_8161.JFIF	Jan-00	2.8	100	Jan-58	2.8 17.0 mm	14.75	2.8	Jan-51	15.625	Horizontal [r inf]	12.87 m	12.87 m	Single-p
43	IMG_8162.JFIF	1/250	8	100	1/256	8 17.0 mm	13.88	8	1/256	14.375	Rotate 270 C inf	81.91 m	81.91 m	Single-p
44	IMG_8163.JFIF	Jan-60	2.8	125	Jan-64	2.8 25.0 mm	8.62	2.8	Jan-64	9.625	Horizontal [r 2.13 m]	1.81 m	1.81 m	Single-p
45	IMG_8164.JFIF	1/125	5.6	100	1/128	5.7 17.0 mm	11.75	5.7	1/128	12.125	Horizontal [r 1.81 m]	1.56 m	1.56 m	Single-p
46	IMG_8165.JFIF	1/250	5.6	100	1/256	5.7 50.0 mm	13.25	5.7	1/256	13	Horizontal [r 4.46 m]	3.58 m	3.58 m	Single-p
47	IMG_8166.JFIF	Jan-80	4.5	100	Jan-83	4.6 25.0 mm	10.5	4.5	Jan-81	10	Rotate 270 C 0.64 m	0.58 m	0.58 m	Single-p
48	IMG_8167.JFIF	Jan-60	2.8	100	Jan-64	2.8 38.0 mm	8.12	2.8	Jan-64	9.5	Horizontal [r 2.57 m]	2.13 m	2.13 m	Single-p
49	IMG_8168.JFIF	Jan-50	3.5	100	Jan-49	3.5 17.0 mm	9	3.6	Jan-51	3.375	Horizontal [r 5.86 m]	4.46 m	4.46 m	Single-p
50	IMG_8169.JFIF	Jan-60	2.8	200	Jan-64	2.8 50.0 mm	8	2.8	Jan-64	8.5	Horizontal [r 2.57 m]	2.13 m	2.13 m	Single-p
51	IMG_8170.JFIF	Jan-60	4	100	Jan-64	4 20.0 mm	9.75	4	Jan-64	9.125	Horizontal [r 2.13 m]	1.81 m	1.81 m	Single-p
52	IMG_8171.JFIF	Jan-40	2.8	160	Jan-41	2.8 20.0 mm	7.62	2.8	Jan-40	6.75	Horizontal [r 0.54 m]	0.51 m	0.51 m	Single-p
53	IMG_8172.JFIF	Jan-40	2.8	125	Jan-41	2.8 20.0 mm	7.88	2.8	Jan-40	6.75	Horizontal [r 0.54 m]	0.51 m	0.51 m	Single-p
54	IMG_8173.JFIF	30-Jan	2.8	200	Jan-32	2.8 20.0 mm	7	2.8	Jan-32	6.625	Horizontal [r 0.39 m]	0.37 m	0.37 m	Single-p
55	IMG_8174.JFIF	30-Jan	2.8	200	Jan-32	2.8 20.0 mm	7.12	2.8	Jan-32	5.75	Horizontal [r 0.39 m]	0.37 m	0.37 m	Single-p
56	IMG_8175.JFIF	30-Jan	2.8	1250	Jan-32	2.8 17.0 mm	4.38	2.8	Jan-32	4.625	Horizontal [r inf]	81.91 m	81.91 m	Single-p
57	IMG_8176.JFIF	25-Jan	2.8	1600	25-Jan	2.8 17.0 mm	3.75	2.8	25-Jan	4.25	Rotate 270 C inf	81.91 m	81.91 m	Single-p
58	IMG_8177.JFIF	30-Jan	2.8	1600	Jan-32	2.8 17.0 mm	3.88	2.8	Jan-32	4.5	Horizontal [r inf]	12.87 m	12.87 m	Single-p
59	IMG_8178.JFIF	30-Jan	2.8	1600	Jan-32	2.8 30.0 mm	4.88	2.8	Jan-32	4.25	Rotate 270 C inf	12.87 m	12.87 m	Single-p
60	IMG_8179.JFIF	30-Jan	2.8	1250	Jan-32	2.8 17.0 mm	3.38	2.8	Jan-32	5	Horizontal [r 1.81 m]	1.56 m	1.56 m	Single-p
61	IMG_8180.JFIF	Jan-40	2.8	640	Jan-41	2.8 17.0 mm	5.5	2.8	Jan-40	5.375	Horizontal [r inf]	12.87 m	12.87 m	Single-p
62	IMG_8181.JFIF	30-Jan	2.8	800	Jan-32	2.8 17.0 mm	5.12	2.8	Jan-32	5.125	Horizontal [r inf]	12.87 m	12.87 m	Single-p
63	IMG_8182.JFIF	30-Jan	2.8	1000	Jan-32	2.8 17.0 mm	4.75	2.8	Jan-32	4.75	Horizontal [r 0.7 m]	0.64 m	0.64 m	Single-p
64	IMG_8183.JFIF	Jan-60	2.8	1600	Jan-64	2.8 33.0 mm	4.88	2.8	Jan-64	4.875	Horizontal [r 0.32 m]	0.3 m	0.3 m	Single-p
65	IMG_8184.JFIF	Jan-50	2.8	1250	Jan-49	2.8 33.0 mm	5.12	2.8	Jan-51	5.375	Horizontal [r 0.3 m]	0.28 m	0.28 m	Single-p
66	IMG_8185.JFIF	Jan-40	2.8	1250	Jan-41	2.8 17.0 mm	4.62	2.8	Jan-40	4.875	Horizontal [r 0.37 m]	0.35 m	0.35 m	Single-p
67	IMG_8186.JFIF	30-Jan	2.8	640	Jan-32	2.8 17.0 mm	5.38	2.8	Jan-32	5.625	Horizontal [r 0.39 m]	0.37 m	0.37 m	Single-p
68	IMG_8187.JFIF	15-Jan	2.8	1600	16-Jan	2.8 17.0 mm	3	2.8	16-Jan	1.75	Horizontal [r 5.86 m]	4.46 m	4.46 m	Single-p
69	IMG_8188.JFIF	13-Jan	2.8	1600	13-Jan	2.8 50.0 mm	2.75	2.8	13-Jan	2.25	Horizontal [r 2.13 m]	1.81 m	1.81 m	Single-p
70	IMG_8189.JFIF	6-Jan	2.8	1600	6-Jan	2.8 17.0 mm	1.62	2.8	6-Jan	1	Horizontal [r inf]	12.87 m	12.87 m	Single-p

Photo meta data:

- 443 683 data points
- 746 categories

ExifTool -@ iphone_4s-g0.args *.JPG -csv > useful.csv -g0 -c "%.12f" -g0

.....*The Tools*.....

About the tools

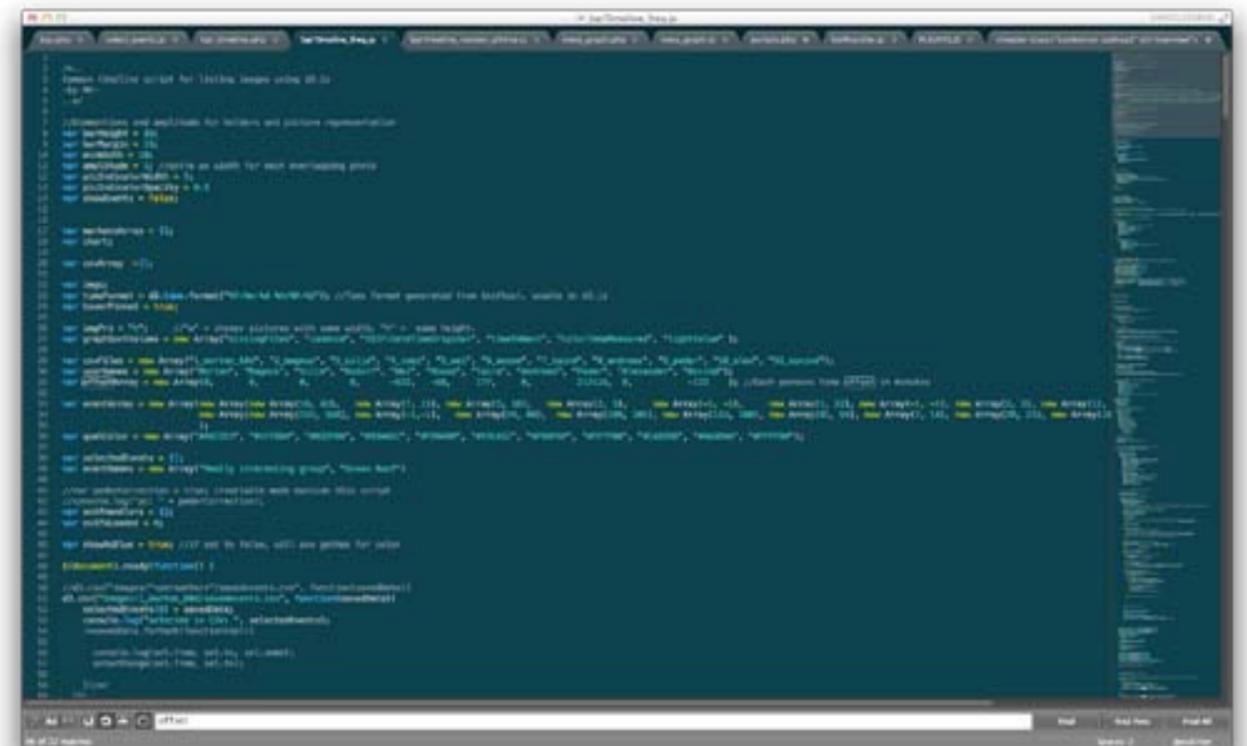
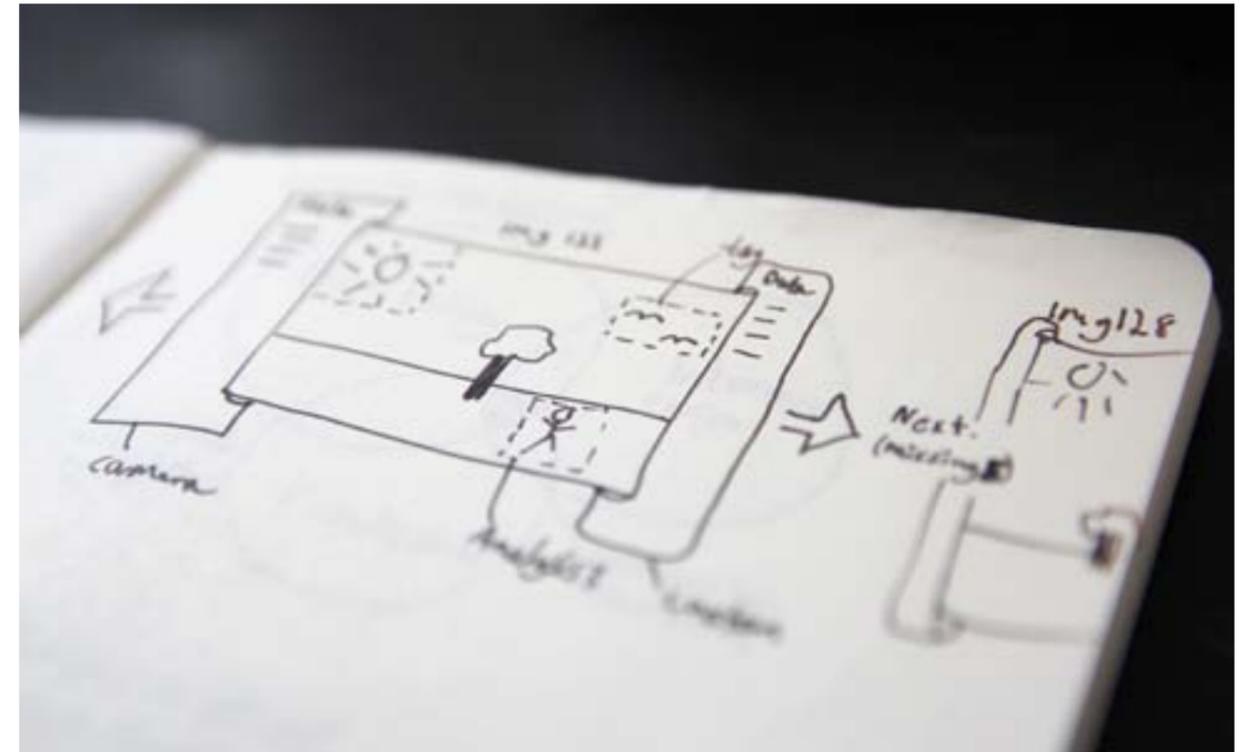
Six tools that grew out from working with real data.

The following section describes the actual tools that I have made in this project. I have worked hands on with code in an explorative way, and the tools have sprung out from wanting to work with, and look at actual data. I usually start by making simple paper sketches, before starting to write code at an early stage.

This has made new ideas pop up, from possibilities that turn up when having made a set of functions, while other ideas have been laid to rest they would require an unreasonable amount of effort to get working within the limits of the project. Some of these ideas I have evidenced further as concepts, and tried to describe in this report.

The tools are:

- Timelines
- Select Events
- MetaGraph
- Flipbook
- Collage
- Map

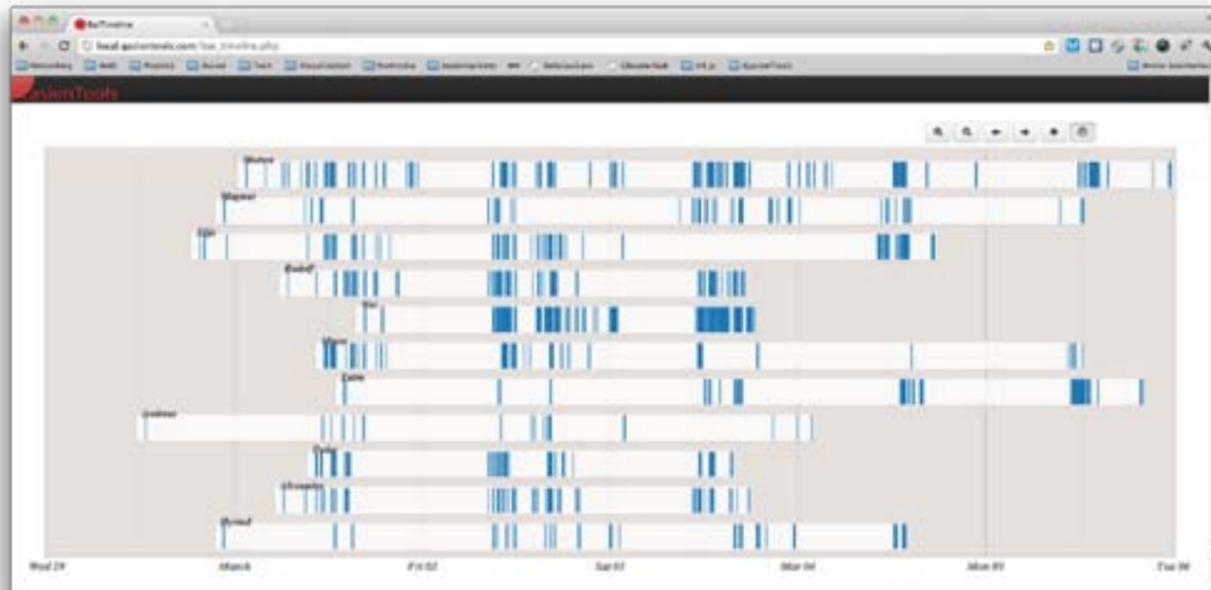


Timelines

A tool for comparing individual streams of photos, and for displaying and navigating complex datasets from groups of people. The Timelines can be expanded into a collaborative interface for dealing with all your photos.

How does the complete story of a group experience look? This is an impossible question, as it has an infinite number of answers. With the Timelines tool, I wanted to get an overview of all the data I had collected in London. The interface simply consists of one “timeline-bar” for each person, with each of the photos taken by that person represented by a small block.

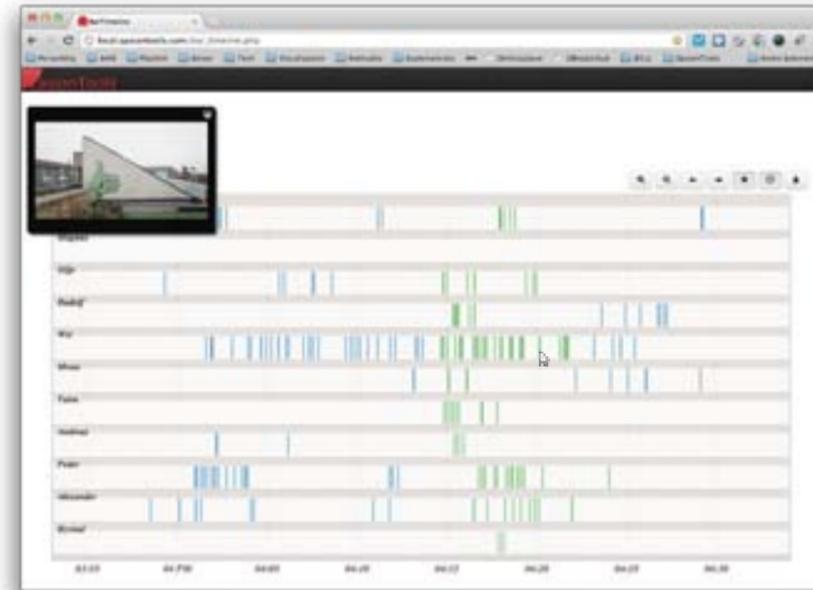
Looking at the data this way gives quite good overview, and some structures start to appear. It is possible to make out when people have been sleeping, and times of intense activity, like Friday morning when the whole group went to visit several companies. It says something about people’s habits through photography. Some seem to take pictures more regularly, while others snap pictures in concentrated bursts. Some people also use the camera as “something to do” when they are bored.



All the photos from London mapped out as timelines in the initial view of the tool.

Navigation

To get a closer look at the material, I built navigation controls. By moving the mouse cursor over the blocks, a thumbnail appears showing the actual photo represented. I also added buttons that makes it possible to zoom in and out as well as pan left and right to look closer into the timelines.



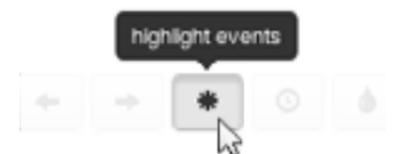
Timelines zoomed in to look at a selected event, “on the green roof”. Wei’s photo of graffiti is showing because of the mouse cursor position.

The Timelines tool provides overview, and shows structures in the material.

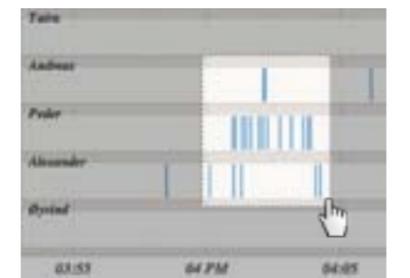
When changing the section of view, the labelled axis underneath update to show the correct time, so it is possible to keep track of what you are looking at.

In the layout above, another feature is activated, which is the possibility to highlight certain events. I have predefined a few ranges in the pictures, that changes color in the overview. This makes it easy to what see happened when, and who took part in which events.

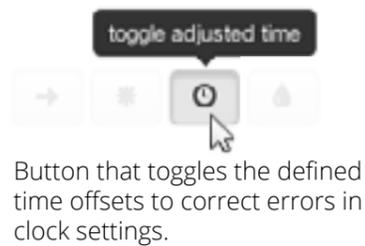
A useful feature would be a selection tool for creating new events. This would be a quick way of enriching the dataset in a way that could be used in visualizations and storytelling. The select feature is not yet implemented, but is fully possible to do.



Button that highlights predefined events across the timelines.



Future feature: select and define events across the timelines.



The issue of time

When we left for London, I asked the group to set the internal clocks in their cameras, to make it possible to work with the pictures in relations to time. It turned out that a lot of them got this wrong.

In the timelines shown above, I have figured out a time offset for the five people in the group that had incorrect times set, and adjusted them to make them align correctly. The Timelines tool works very well to find such errors, and help correct them. I have made a button that moves the individual timelines to show the positions before/after the time offsets. The errors ranged from a few minutes to one hour to several *months*.

A feature that could be implemented to address this problem is the ability to align timelines by simply dragging them in place. Possibly errors could also be detected by analysing the data, and suggesting changes automatically.

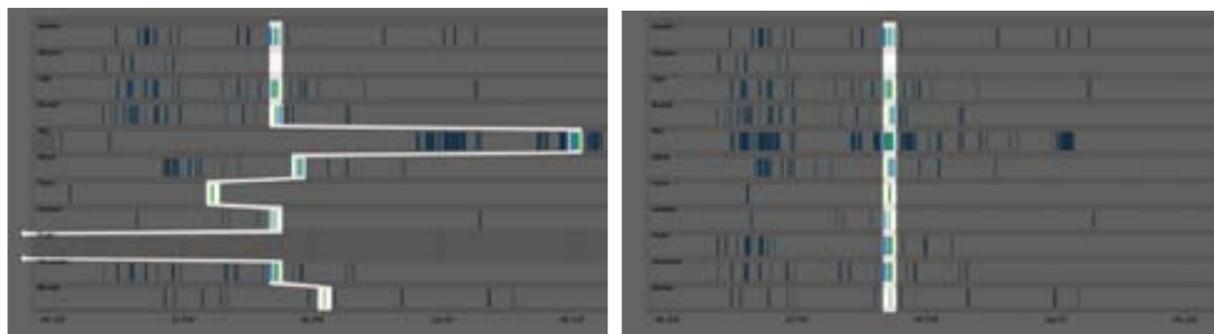
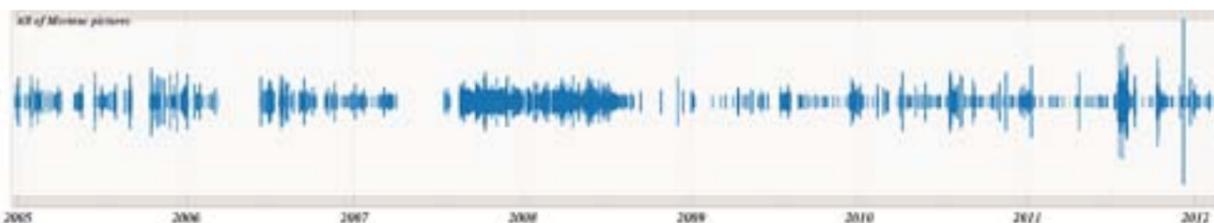


Illustration of how time is adjusted. Left: the pictures are in the original position, based on camera time. Right: timelines have been scrubbed into place, so that pictures that are taken at the same time is aligned.

Beyond London

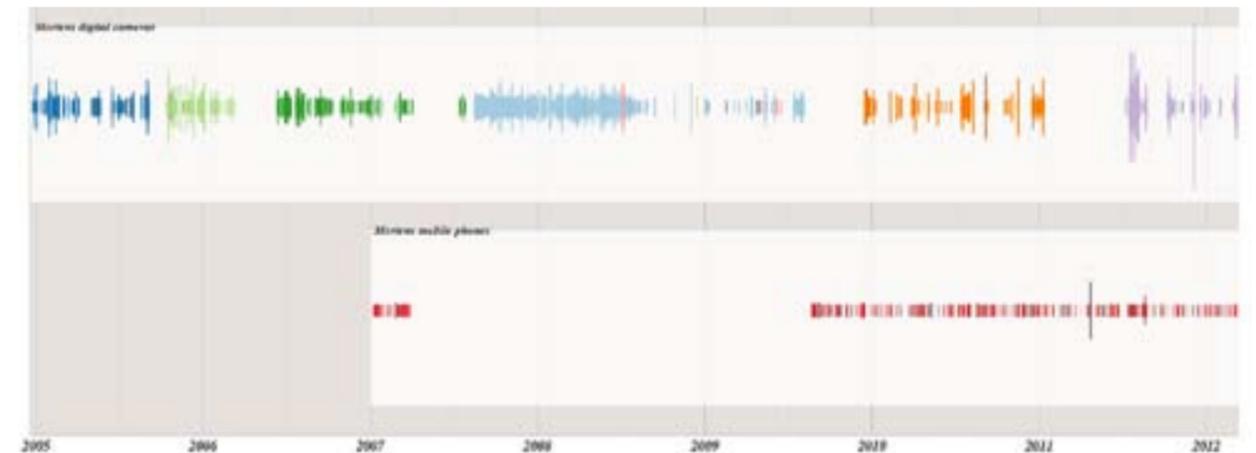
The Timelines tool work by extracting meta data from photos, and using the data for assigning positions to elements on the page. This is a very general method, and I wanted to see if I could use it for other data than the set I had collected from London.

So I started testing with data I had available; all the digital pictures I have ever taken. Since I got my first digital camera for Christmas 2004, I have taken around 36.000 pictures. The process of extracting and cleaning the meta data from the disk where I keep my collection of pictures took a few hours, and with a few adjustments to the code, I got this:



The resulting graphic looks almost like a representation of a sound file, but instead of sound volume, the “spikes” represent times where I have taken a lot of pictures. Most of them indicate significant events in my life, which I like to remember.

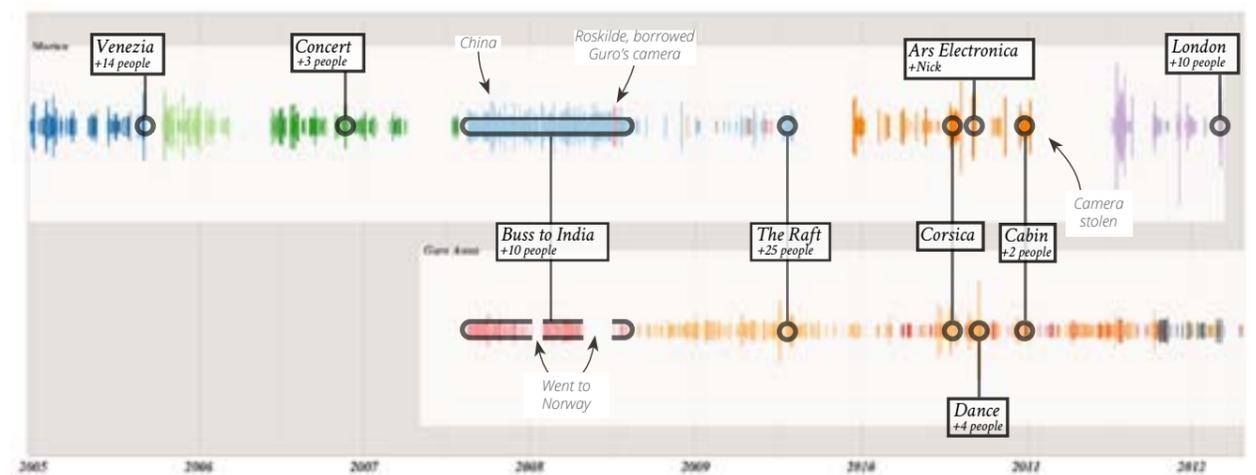
I worked a bit more with the representation, and indicated the different cameras I had used (which are a quite many) by color. This reminded me that most the long blank areas were times where I did not have a camera, due to loss or theft.



I then separated pictures from my camera phones (in red), as these seemed to follow a different pattern, and looked like “background noise” in the graphic. This is because I use the camera phone in a different way, taking more “everyday pictures”, and I find most of them to be more personal and not involving groups as often.

By also entering my girlfriend’s photos, I was able to see what events we had done together, and what we had done by ourselves. I also started looking for other stories in the data, like when my cameras were stolen, and how many other people was involved in the different events.

- Canon IXUS 40
- Canon IXUS 55
- Canon IXUS 65
- Olympus E-510
- Canon IXUS 75
- Canon IXUS 860 IS
- Canon EOS 7D
- Canon EOS 60D
- Sony Ericsson W850i, iPhone 3GS



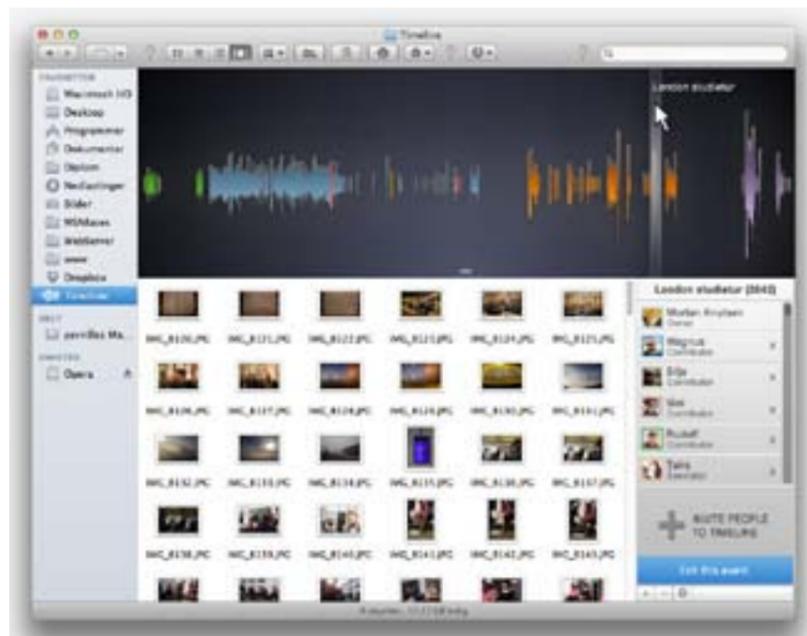
Possibilities

I started to see how this could be used as an interface to deal with the huge amount of pictures many of us produce today. The Timeline could serve as a navigation tool in addition to, or as a replacement of the metaphor of folders on a desktop that we are used to in our computers. I believe it could help users find content and remember contexts more easily.

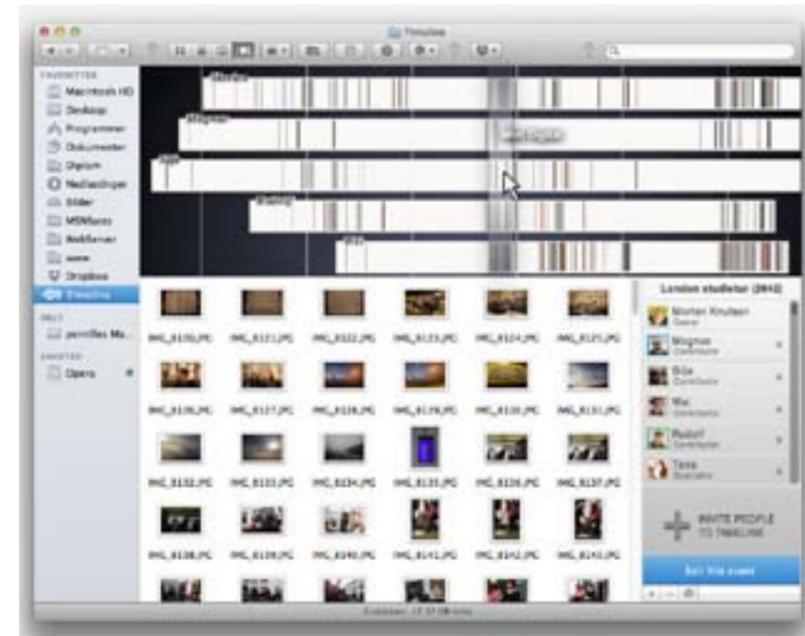
The Timelines could be used as an interface for cloud storage solutions, like Dropbox or Google Drive. This opens up the possibility of sharing different *parts* of the timeline with different people, and in this way opening up for a very scalable and controllable way of distributing data, as it could work to share both ways. If two people have shared an experience in real life, they can “merge” the timelines at that point, and get access to each other’s content.

I have put the timeline in two contexts to illustrate how this might work. Both are based around cloud storage, which is sure to evolve rapidly in the near future, due to strong competition to get customers.

.....
Timelines could serve as an addition or replacement to the metaphor of folders on a desktop.
.....



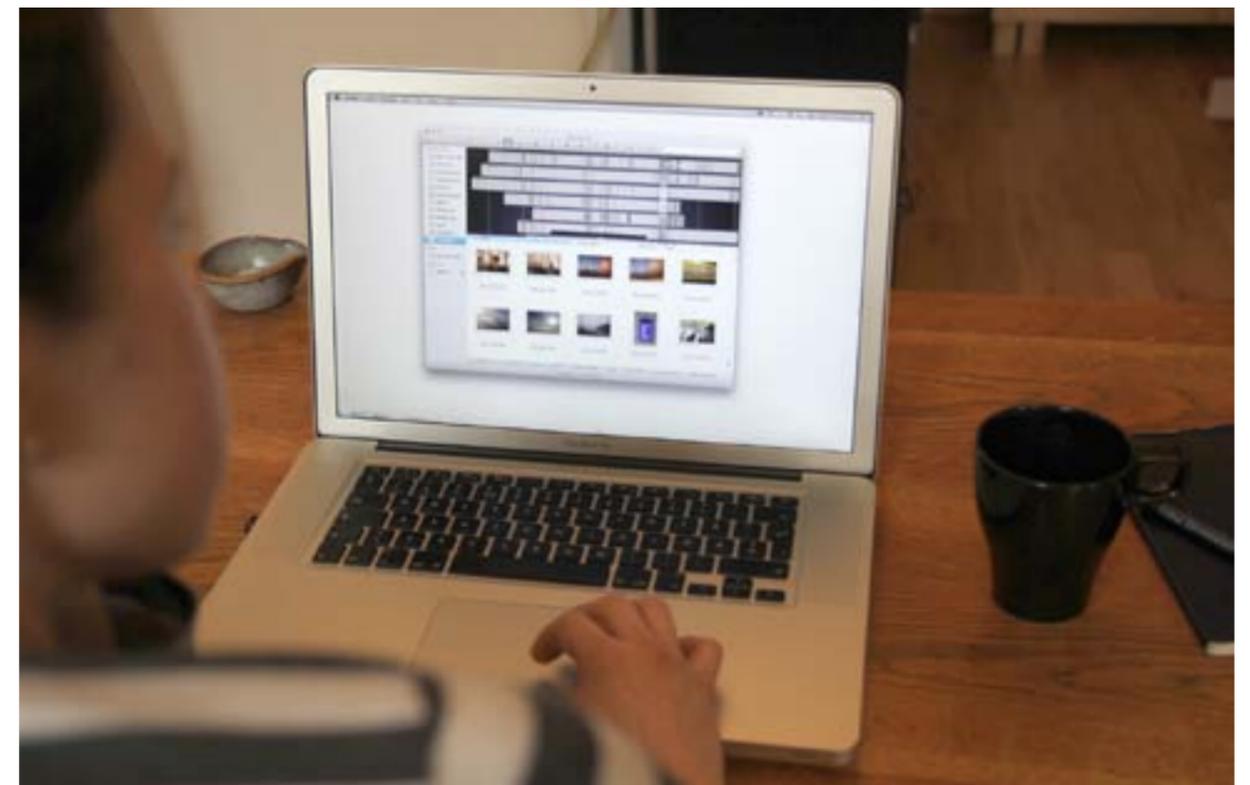
Timeline tool integrated directly in Mac OS X's Finder, with cloud storage. Parts of the timeline are shared with other people. The sharing is managed through the social sidebar.



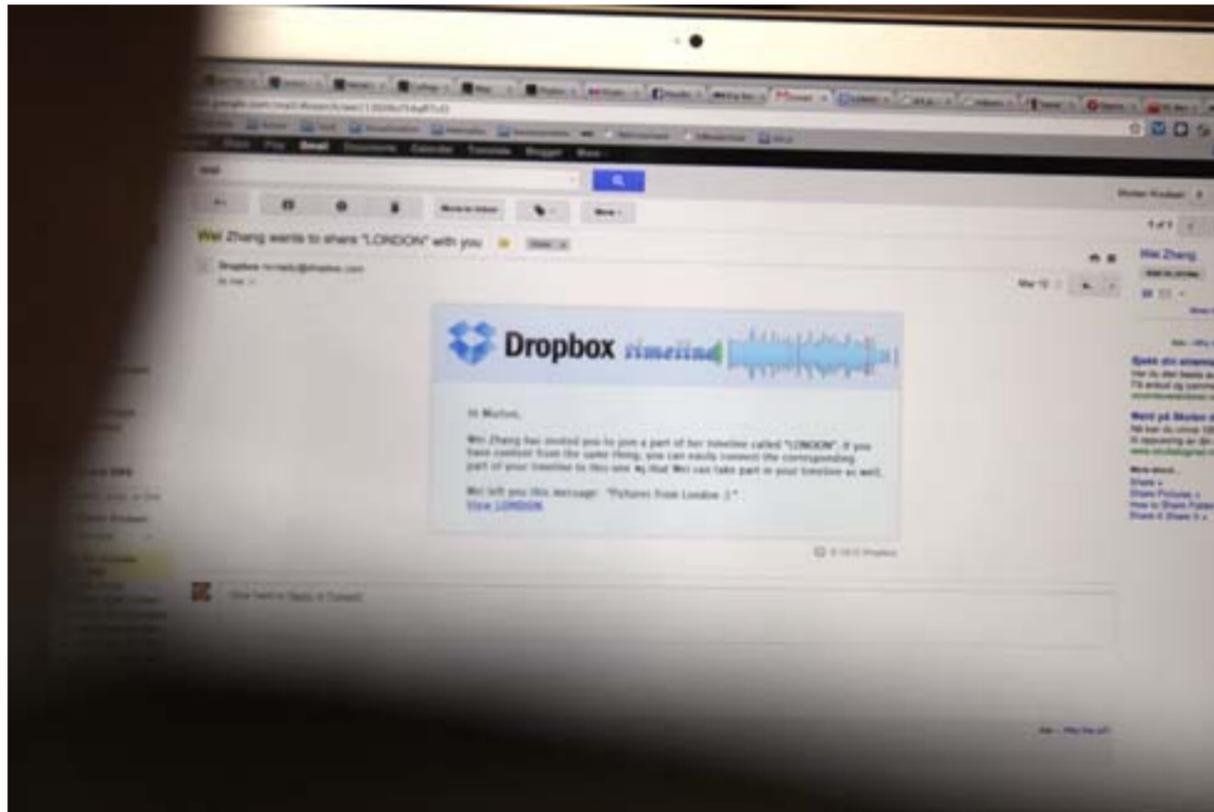
Inside a part of the Timeline tool in Finder. Gives easy access and overview of content from multiple people.

Finder integration

By integrating cloud storage directly into the operating system on computers, files are automatically backed up, and can be accessed anywhere. This also makes it very easy to share content with specific people; everything is already online, all you need is to give someone access to the relevant data.



Navigating inside a part of the timeline, the user gets access to the other people's files.



Receiving an invitation to join a part of a friend's Timeline through Dropbox.

Dropbox integration

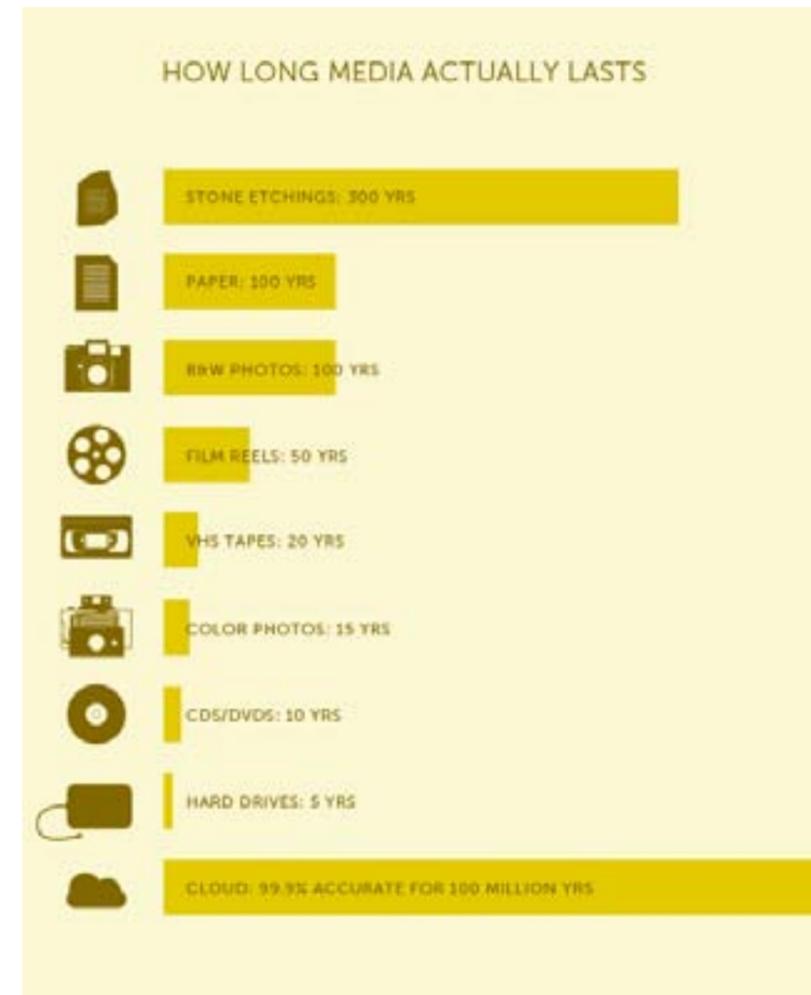
The market leader on cloud storage today is Dropbox. But many other companies are moving into this field. I have suggested integrating Timelines into the service as a unique feature to keep a competitive edge.



Email invitation to "merge" parts of two peoples timelines that represent the same experience.

.....
"Dropbox will need to innovate; it needs to come up with ideas that makes its service more distinct, easier, and more noticeable than Google Drive"

 David Ruddock, editor

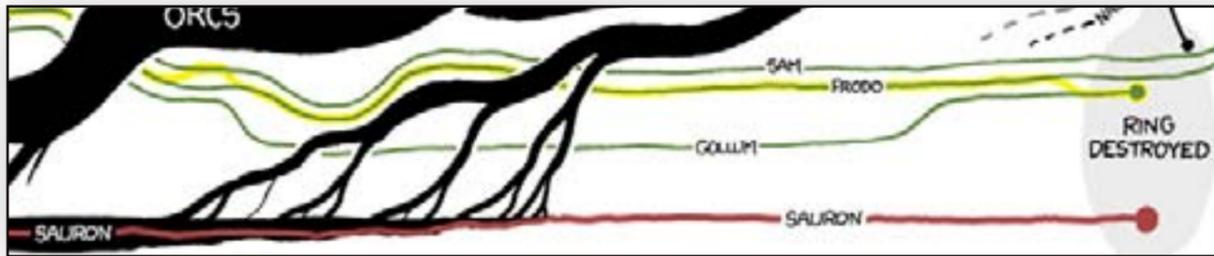


Infographic from Jonathan Good in 1000memories.com, showing that the trend of our storage media getting shorter and shorter life spans have finally turned with cloud storage.

Inspiration

One of my inspirations for working with content on a timeline is the XKCD comic on the opposite page by Randall Munroe. It shows complete overviews of very complex storylines in a very compact and still readable manner, by showing character interactions from beginning to end in different movies. The comic does not re-tell the narrative, but works very well to remember it, if you already know the story.

By using tools to enrich datasets like the one from London, visualizations inspired by this kind of visual storytelling could be made.



[Spoiler alert] The epic tale of how the ring (yellow) was destroyed - retold in comic form by XKCD.

THESE CHARTS SHOW MOVIE CHARACTER INTERACTIONS.
THE HORIZONTAL AXIS IS TIME. THE VERTICAL GROUPING OF THE
LINES INDICATES WHICH CHARACTERS ARE TOGETHER AT A GIVEN TIME.

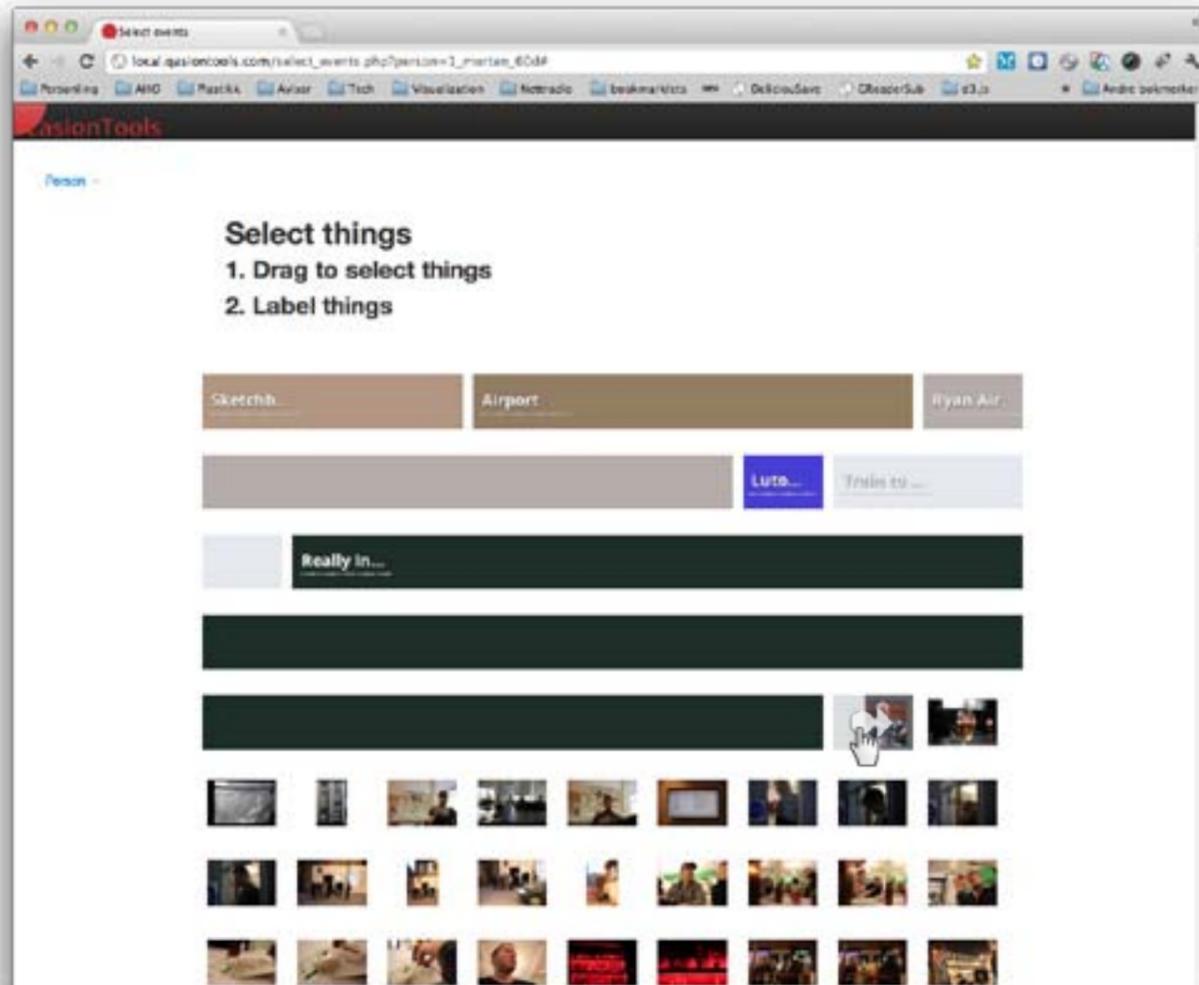


Select Events

A tool for grouping one user's content in an easy way, while producing colorful graphics that can be printed as posters.

The tool for selecting events is made for people to look through their *own* content, and quickly be able to divide a large group of photos up into smaller parts that represent single smaller events. For example, out of the 547 photos I took during my five days in London, 24 are from our visit to the Really Interesting Group and 4 are from a dinner at a Chinese restaurant. By simply dragging selections over thumbnails of the photos, labels can be assigned in a quick way.

The thumbnails are quite small but it turns out that to the photographer, this is usually all that is needed to recollect what the pictures are of. By going through the material in this way, I believe that the user also “re-lives” the experience, and brings it back into mind, so it is easier to tell stories based on the images.



The select events tool with some “things” labelled, and about to make the next selection.

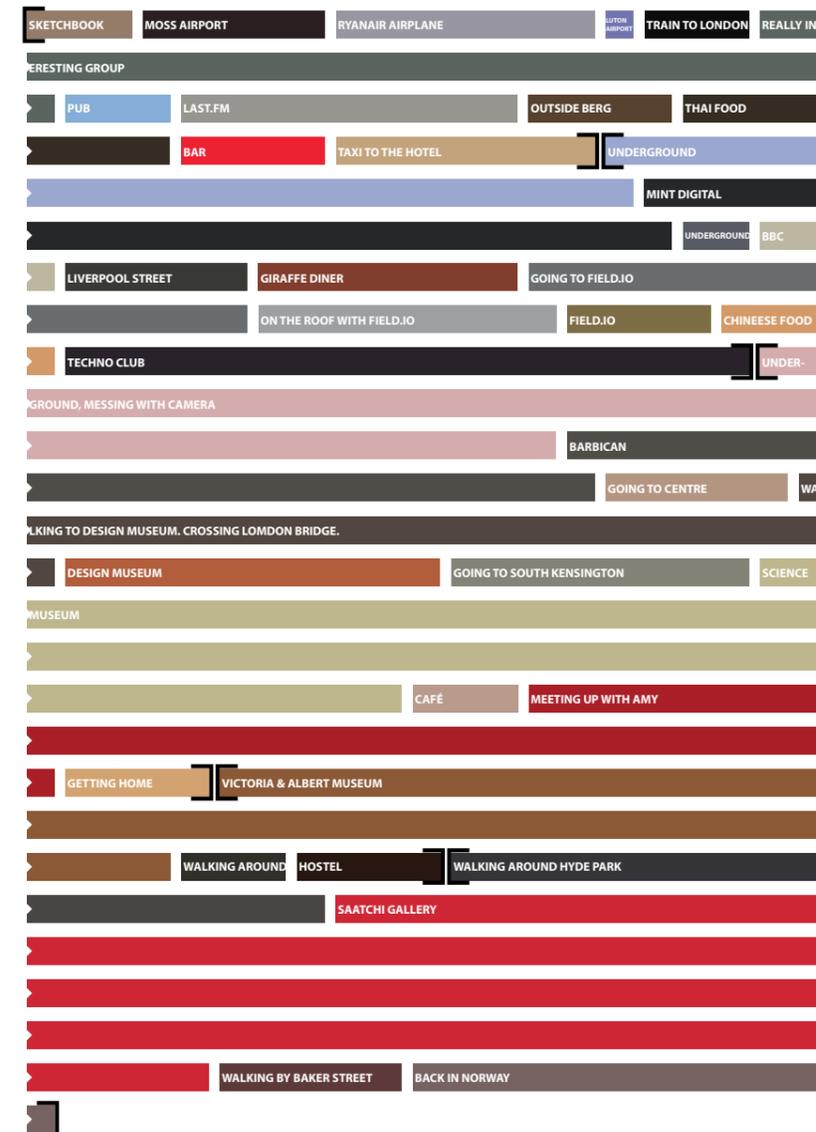
Another result from going through this process is that the dataset gets enriched. The labels are saved, and can be brought up elsewhere, like in the Timelines or the Meta Graph tool.

When used in a dataset with multiple users, the tool could be expanded to suggest events automatically, based on other users selections.

Grahical outputs

The images selected get covered by a colored block, that picks up it's color from the first image in the selection (based on the method described in the 'Color'-chapter). This process reduces the complexity of the set, and abstracts the data away from the actual images, and thereby telling a simple story in itself.

I have set up a couple of layouts that can be saved or printed, as a custom memory or souvenir from an experience.



My trip to London, told by colored labels based on my own photos. The black dividers indicate the nights I slept there.

Poster

In the poster on this page, the days have been split up to make a lighter layout with more white space and air.

When seen at a distance, the blocks on the page can resemble words (in addition to containing actual words). In this way, the days become “paragraphs”, in the graphical story about the experience from London.



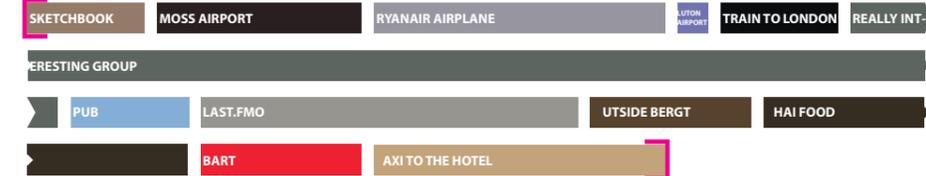
A poster made from the data defined in the Select Events tool

WHAT HAPPENED IN LONDON 2012

STUFF DOCUMENTED IN MY 547 PHOTOS

LENGTH: NUMBER OF PHOTOS
COLOR: FIRST PICTURE REDUCED TO ONE COLOR

THURSDAY



FRIDAY



SATURDAY



SUNDAY



MONDAY



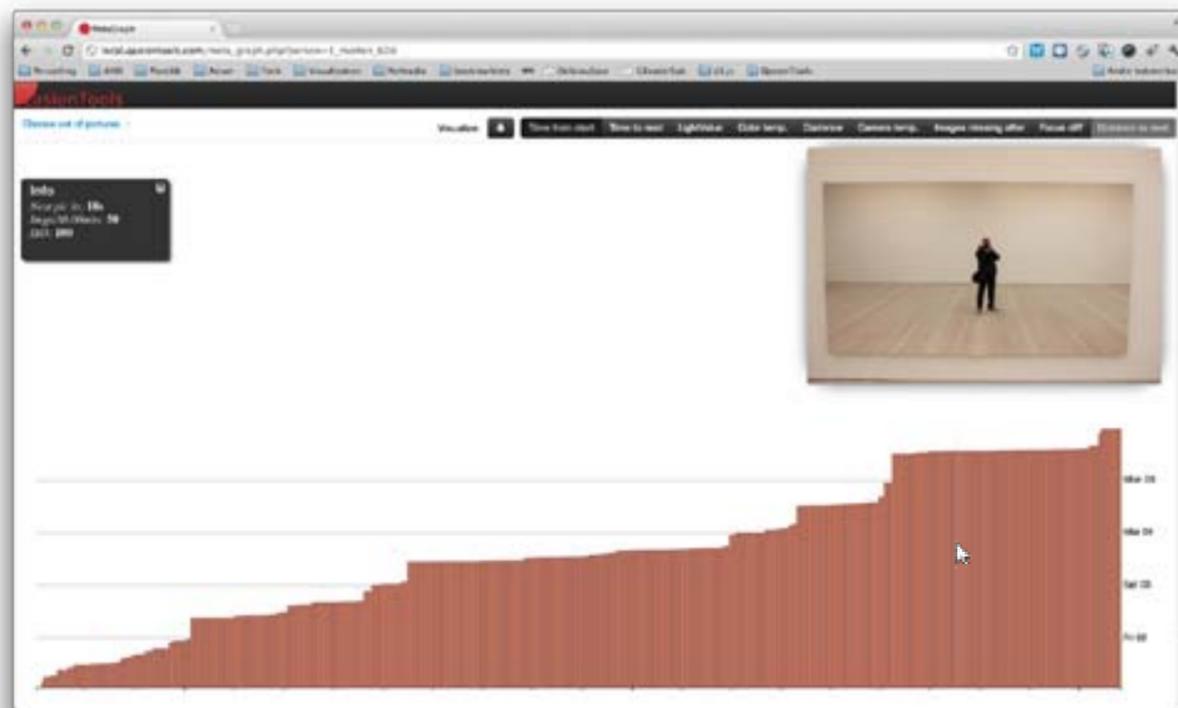
MetaGraph

The MetaGraph tool visualizes hidden data in sets of digital photos, shows relations between them and helps find patterns in the data that can reveal human behaviour and stories.

The MetaGraph tool was one of the first I started making when returning from London. As one of my goals was to work with the meta data in the pictures rather than only the images, I needed a way to visualize the different properties. I started working with code, using JavaScript and the d3.js library (described in the appendix), to get the data from lists of numbers into visual elements that make it easier to grasp large sets of data.

The main function of MetaGraph is basically a bar chart. The height and width of the bars change according to the data it is set to visualize. It works with individual datasets from the London trip, and shows one bar per photo taken. The widths of the bars get thinner with larger number of pictures, as the total width of the graph is constant. The toolbar at the top changes which meta data property that defines the heights.

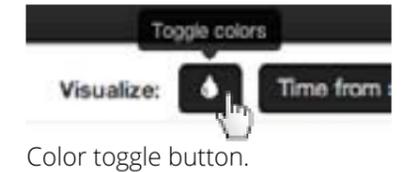
By hovering over the bars with the mouse cursor, the represented image appears in the left side of the screen, and a box with some info about the photo in the right side. In this way, the graph becomes a quick way to scrub through the dataset as well.



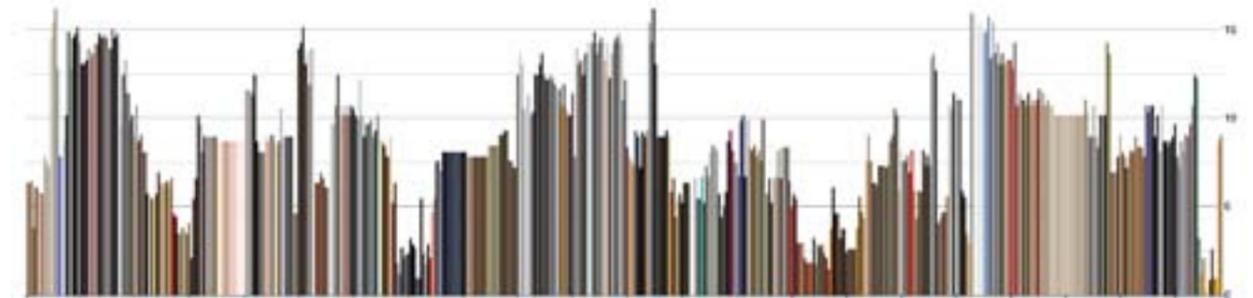
Initial view of the MetaGraph tool, with an image selected. This view shows the time since the first picture, and can tell us how quickly pictures are taken, and when pictures were not taken.

Colorize

The first button in the toolbar toggles use of colors from the images in the bar chart. This makes the chart more useful for finding specific images (and more fun to look at).



By turning on colors, and choosing “LightValue” as the property to visualize, the graph from the previous page looks like this:



Bars showing image colors. Heights represent amount of light in the scene shot.

The heights of the bars now represent the measured “amount of light”. This is a number that is calculated from the shutter speed, aperture and ISO camera settings for each image. It does not say if the image is dark or bright, but rather if the sun was shining, or if an image was taken late at night. Values of 14-16 usually indicate bright sunlight, while 0-3 indicates a dark room or night.

There is a range of other properties to look at, showing different data. Some of them are:

Color temperature

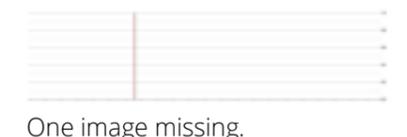
Showing the measured white balance in the scene. This might be used to find pictures that are taken inside, outside or pictures of a sunset.



Color temperature.

Images missing

By looking at the filenames, which almost always are numbered consecutively, it is possible to check if anything is missing. Sometimes the stories can be found in what is NOT told.



One image missing.

Focus distance

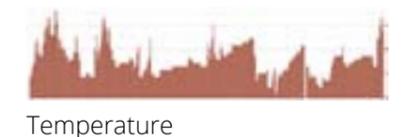
Very inaccurate number that I was hoping could tell the distance to the motive. Are you a close-snapper, or gazing into the horizon?



Focus distance

Camera Temperature

I was not aware that my camera had a thermometer, until this number turned up in the data, measuring degrees Celcius. Does not seem very accurate either, but says something about the weather.

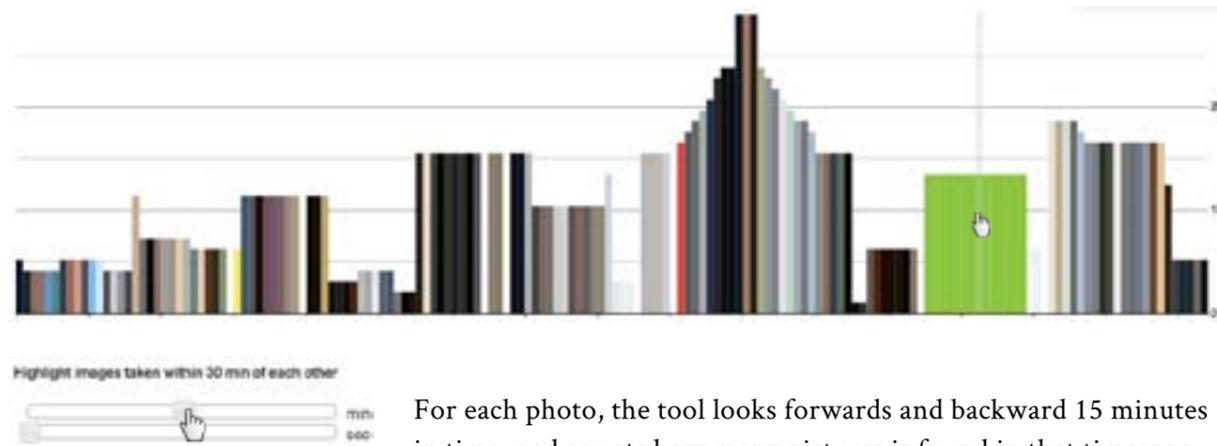


Temperature

Cadence

This is another calculated value, which looks at frequency of photography. The graph can be a bit difficult to understand at first, but interesting to play around with.

Here is an example of how it looks:



Cadence brings up an extra control to adjust time period for the photo frequency.

For each photo, the tool looks forwards and backward 15 minutes in time, and counts how many pictures is found in that timespan. When moving the cursor over the graph, all the images that are taken within that time turn green.

This can say something about behaviour, and if the photographer took pictures for a long period of time. By adjusting the timespan with the slider controls, it is also useful for identifying images taken very rapidly. Such images usually work well with the Flipbook tool, described in the next section.

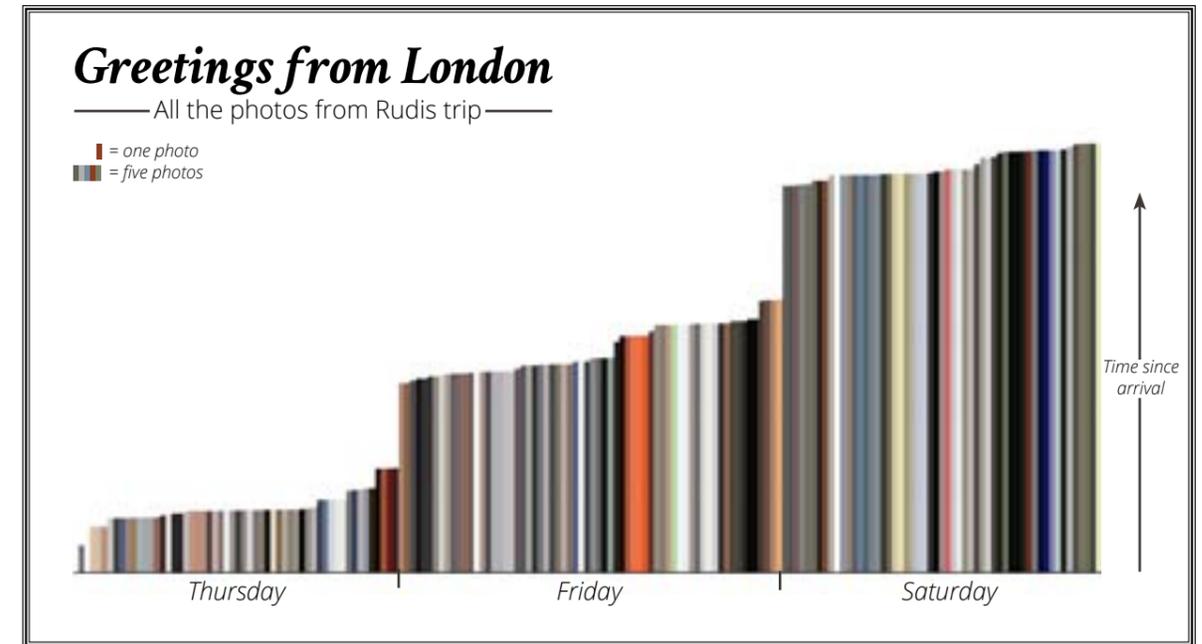
What does it mean?

I was hoping to use this tool for identifying patterns that could be used to find stories within the data that were not necessarily based around chronology in time. It has not proven to be very effective for this purpose, so I believe this tool is more for “nerds”, that find it entertaining to look at data as an activity in itself. It was also a great exercise for working with data visualization with code.

Postcards

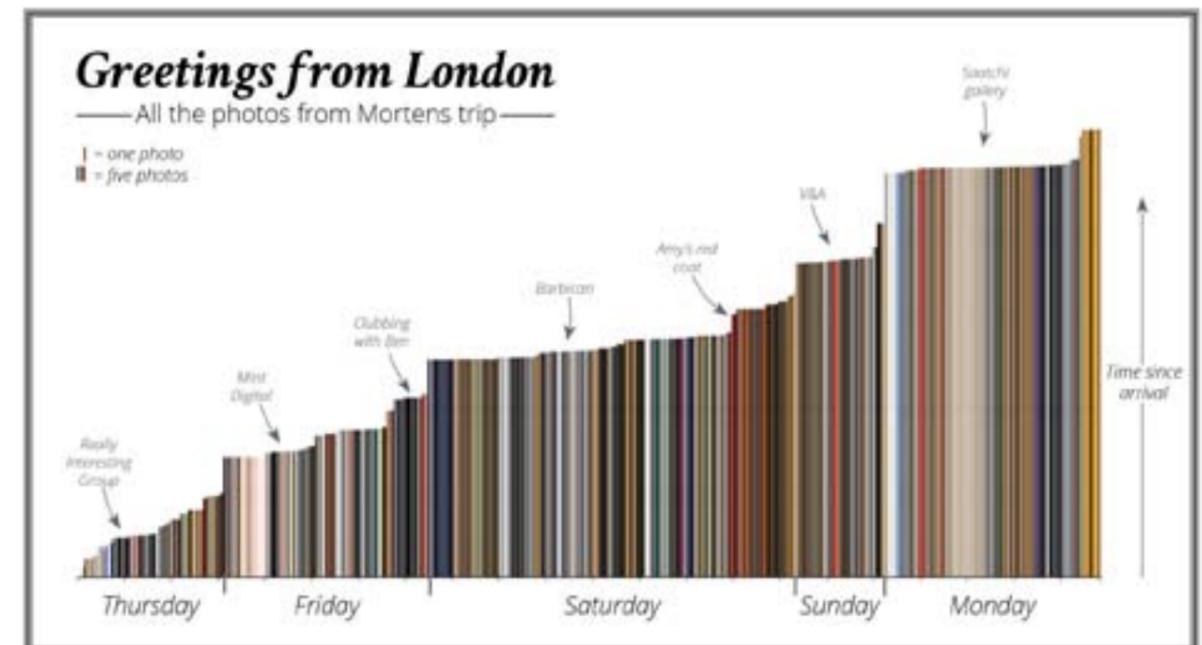
While the graphics produced by the tool are not immediately understandable to most people, they do have certain aesthetic qualities that I wanted to explore further. One idea is to make postcards from the graphs.

This could be made into a service that prints and send a unique card to someone, based on your personal MetaGraph, as a manifestation of all the pictures you have to show when you get home. By annotating the graphs, they can be made much more understandable, and work better for telling stories.

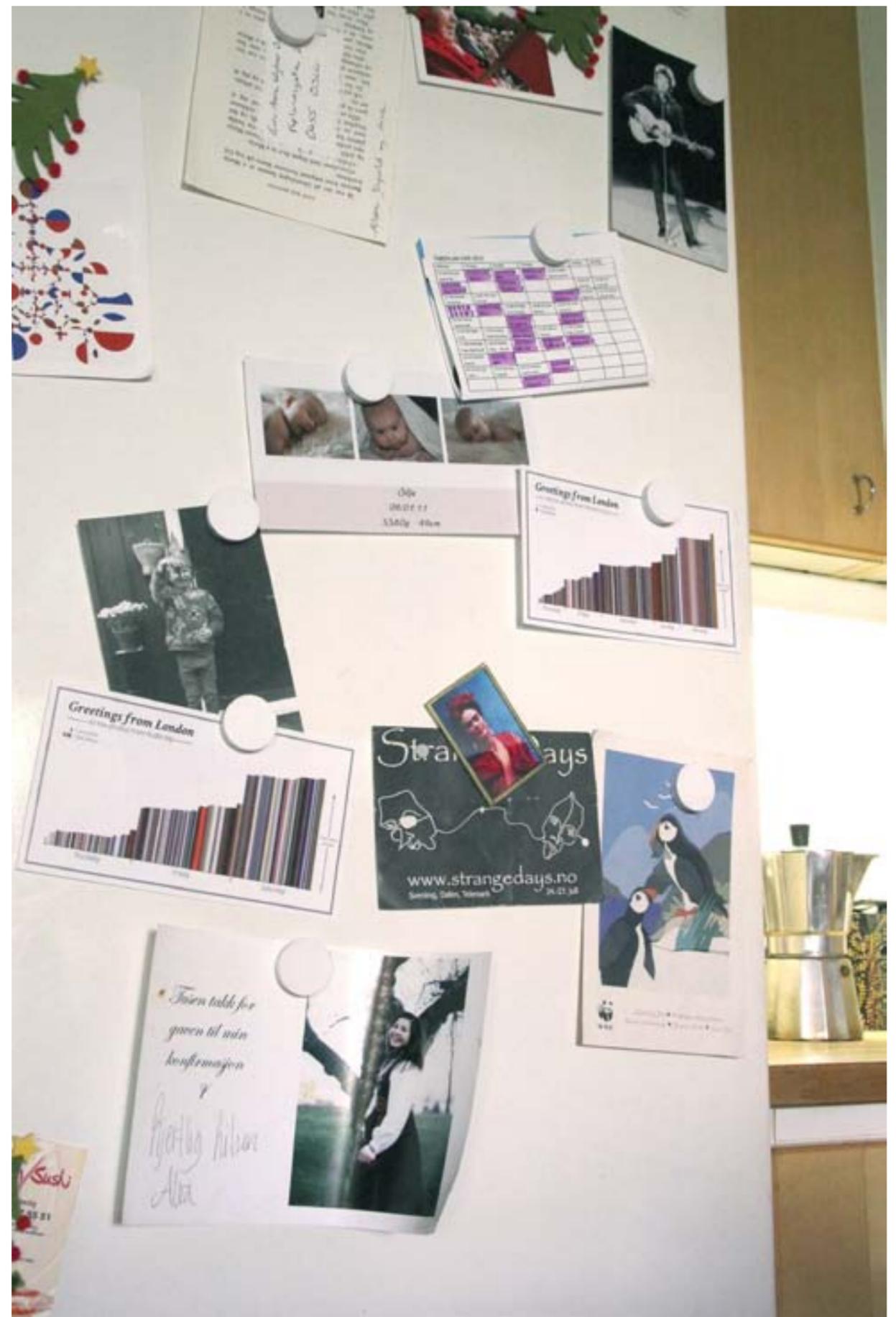


MetaGraph postcard with annotations for axis, and showing the widths of photo-bars as a reference.

While the graphs are not always immediately understandable, they have interesting aesthetic qualities.



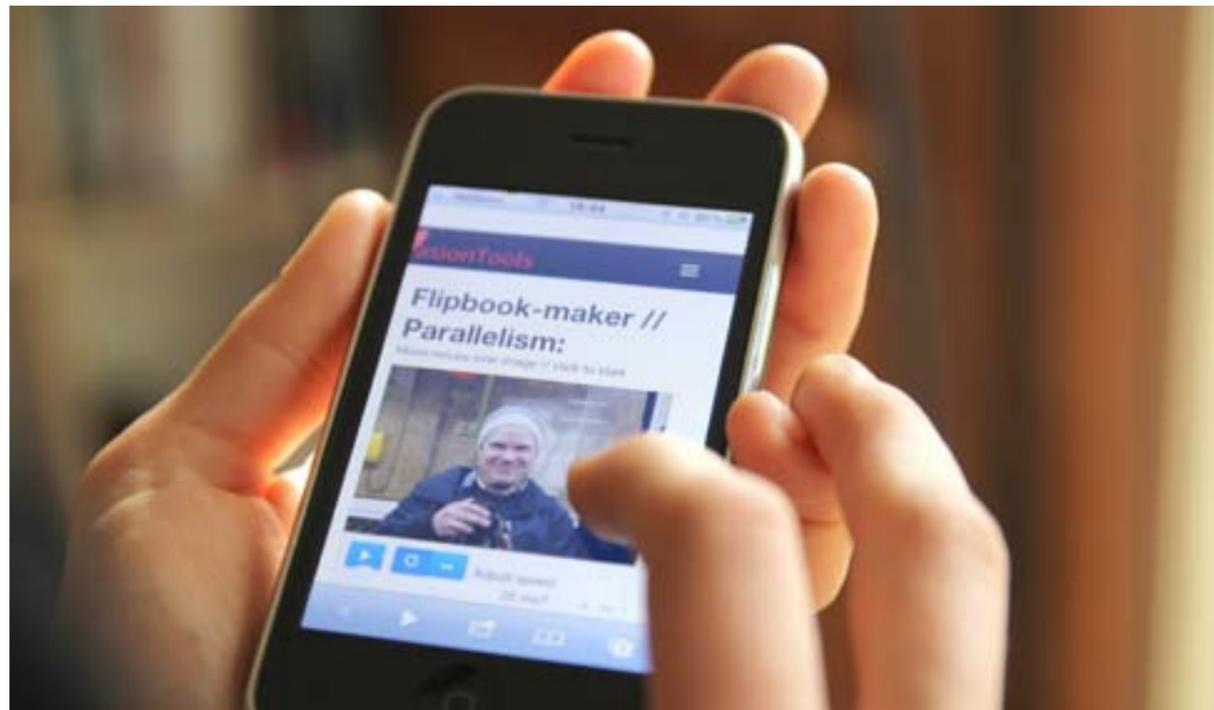
This card has custom annotations that tell a small story from each day.



Flipbook

A simple tool that lets the user place images parallel in time, rather than space.

This tool is one of the simplest, and possibly the most entertaining tool in the project. It lets the user view a set of images in succession, either at a defined speed, or by moving the cursor (or swiping a finger) over the image to “scrub” through the set. There is a setting for playing the images in “ping-pong”, so that the sequence alternates playing forwards and backwards, and a slider to control the rate of animation.



The tool was made to be able to deal with pictures that are similar, or ones that are taken in rapid succession, and put them in a stack. The result appears like gif-animations that have been around since 1989, and seem to be gaining popularity online again today.

The flipbook tool does not encode the images into one file like gif-animations, but rather show and hide the different elements at a given rate and order. This gives the flexibility to play with speed “live”, and interact directly with the stack. It is built to be responsive to different screen resolutions, and works on iPhone/iPads (with some reduced functionality). It is possible to choose from three pre-set sizes, up to a full screen mode that works well with high-resolution images.

Possibilities

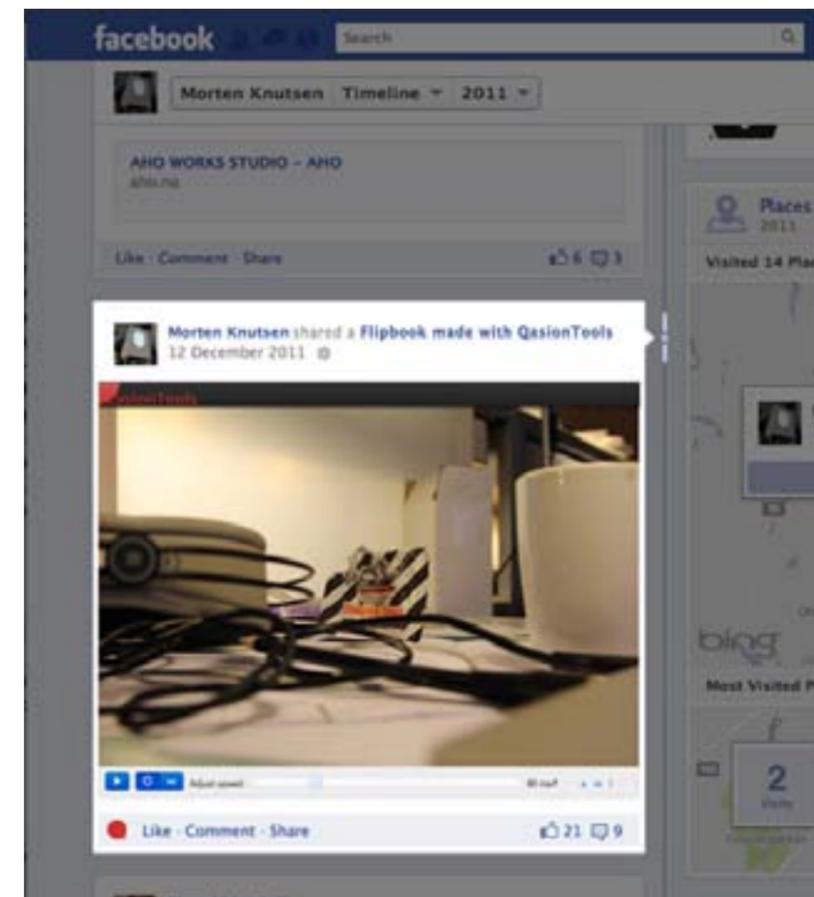
The tool could be expanded to let users embed it onto other websites with a piece of html code (like for example YouTube-videos can be embedded).

In the current tool I have put in five examples for testing. It would be interesting to work with an interface to allow pictures to be imported in different ways. Any image online could be included, as long as the URL is known, and “hot-linking” is not prohibited. Bringing in pictures from Flickr or Facebook are some possibilities.

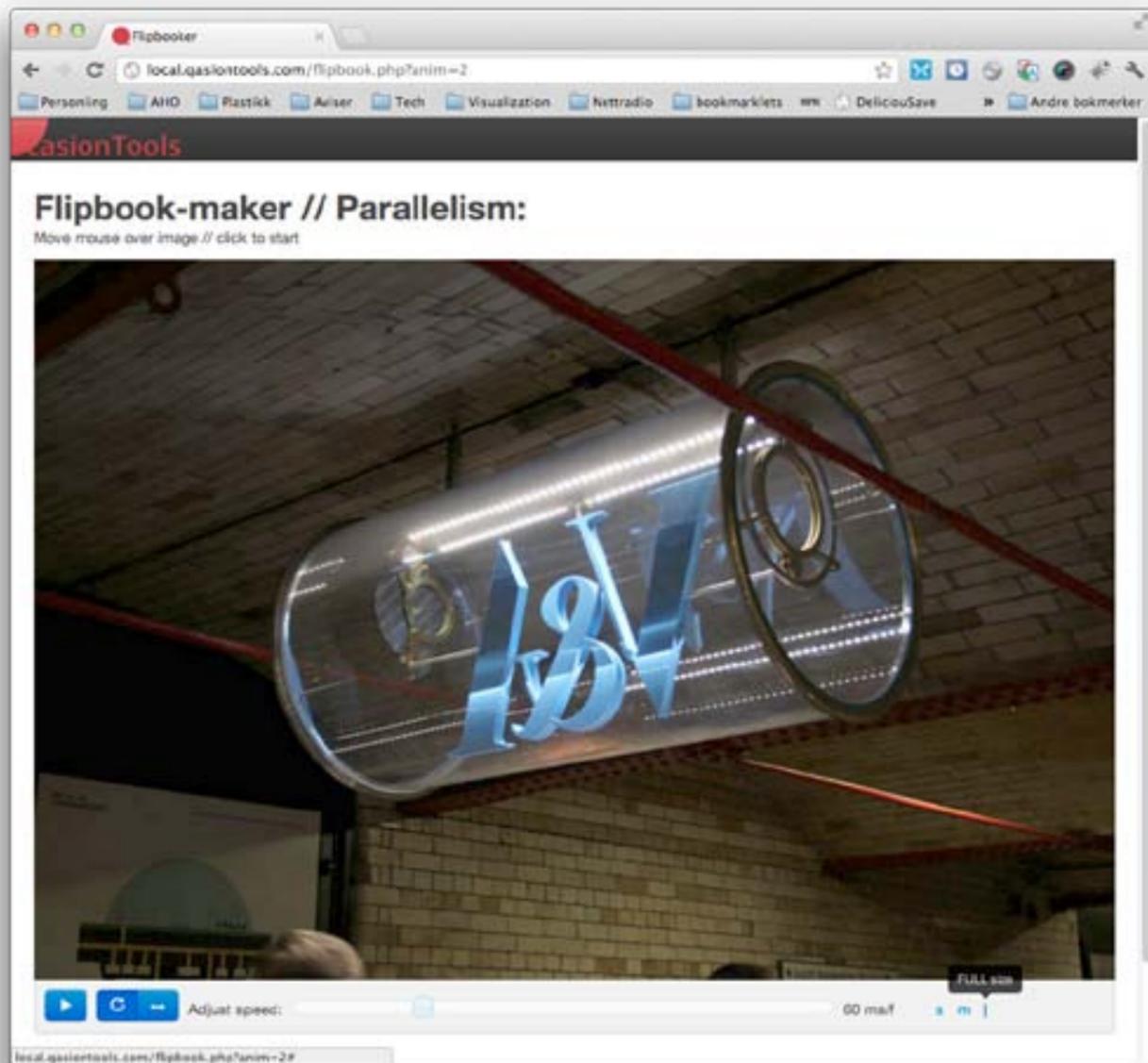


Rows of images, parallel in *space*, that works well with the Flipbook tool.

I also find that it can be useful for actual comparison of images. Edward Tufte describes this kind of arrangement in “*Visual Explanations*” as a great way to enhance reading of differences in images, compared to when comparing images laid out next to each other.



A Flipbook shared on Facebook's timeline.



The web interface in full-width mode.

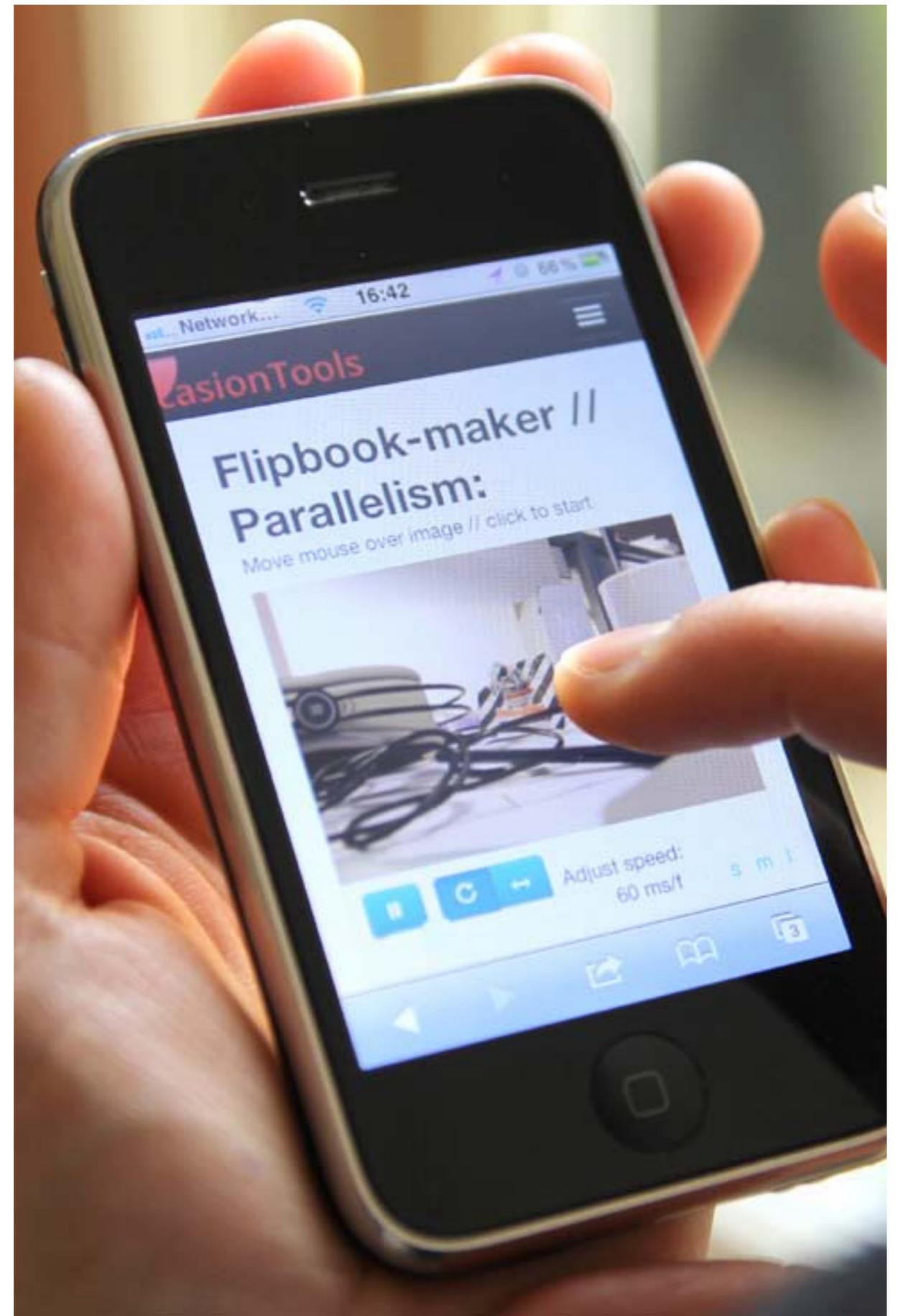
```
<iframe width="1280" height="720"
src="http://www.youtube.com/embed/JdY2uYVzm34"
frameborder="0" allowfullscreen></iframe>
```

Etter du har gjort valgene dine, kopierer og limer du inn koden ovenfor. Koden forandrer seg ut fra hva du velger.

Vis foreslåede videoer når avspillingen er ferdig
 Bruk HTTPS [?]
 Aktiver modus for forbedret personvern [?]
 Bruk gammel innbyggingskode [?]

560 × 315 640 × 360 853 × 480 **1280 × 720** Egendefinert
 Bredde: px
 Høyde: px

Embed code from YouTube. The same principle can be used to share flipbooks to other sites on the web.



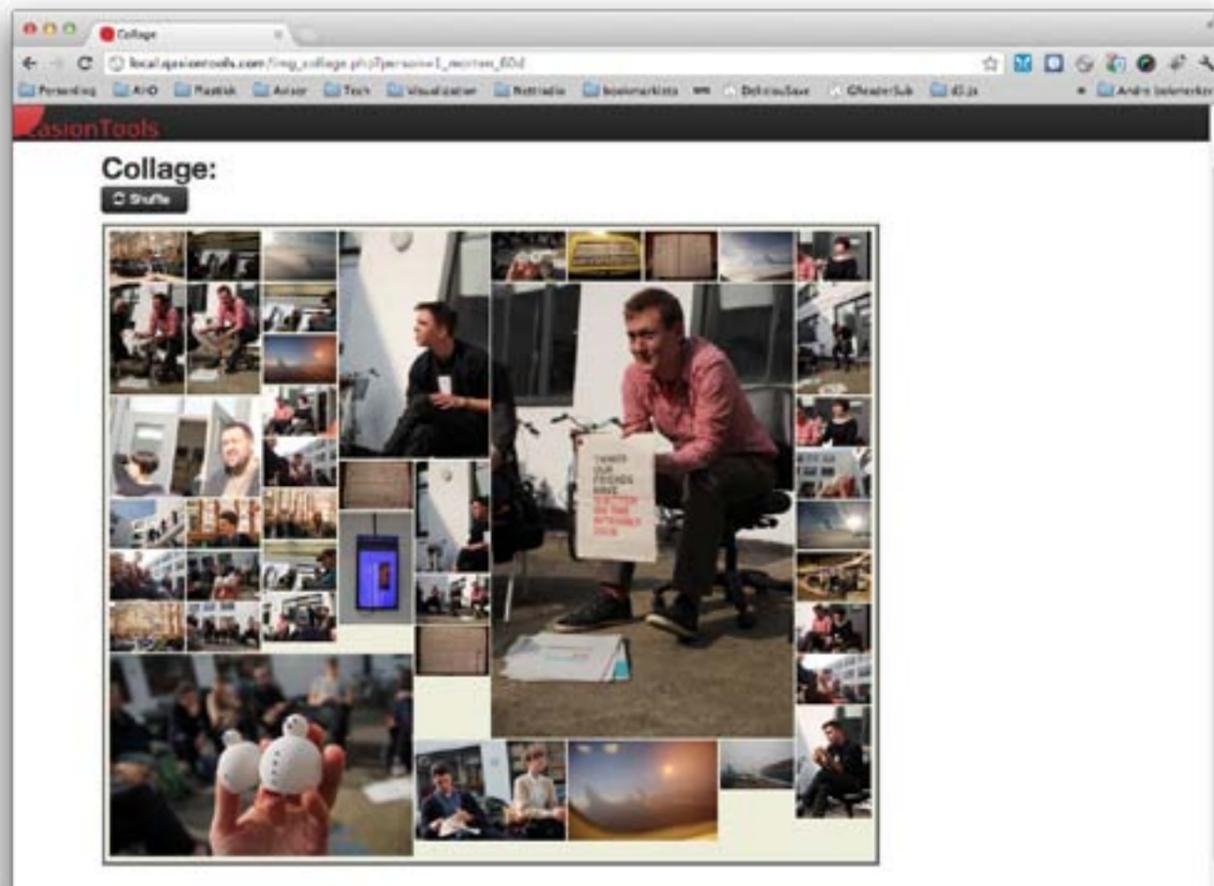
Collage

The collage tool provides a simple interface for displaying many pictures together, and makes it possible to emphasise or remove content.

Most of the previous tools focus on the meta data of digital images. But in some cases it is also interesting to look closer at the pictures themselves. I have made the collage tool to view a number of images together, and to adjust the sizes and arrangements of them.

The layout is quite basic. It shows a column-based grid of a selected number of images. All the images are scaled to have the same widths, independently of the heights. By clicking an image, the size change, alternating between three sizes that all fit in the columns.

When enlarging images, some white space tend to appear between the images. By pressing the “shuffle” button, the collage is thrown around, and usually they fall into a nice arrangement after a few attempts.



Collage showing the visit to Really Interesting Group in London, with some images emphasized.



The shuffle button rearranges the content randomly, and can help out to fill white space in the layout.

Six different arrangements of the same content, by shuffling them around.

I have built in methods for sorting the data based on meta data properties like light value, time or color temperature, but the column based grid tend to break the feeling of continuity, so sorting has not proven very effective to get an understanding of sequences.

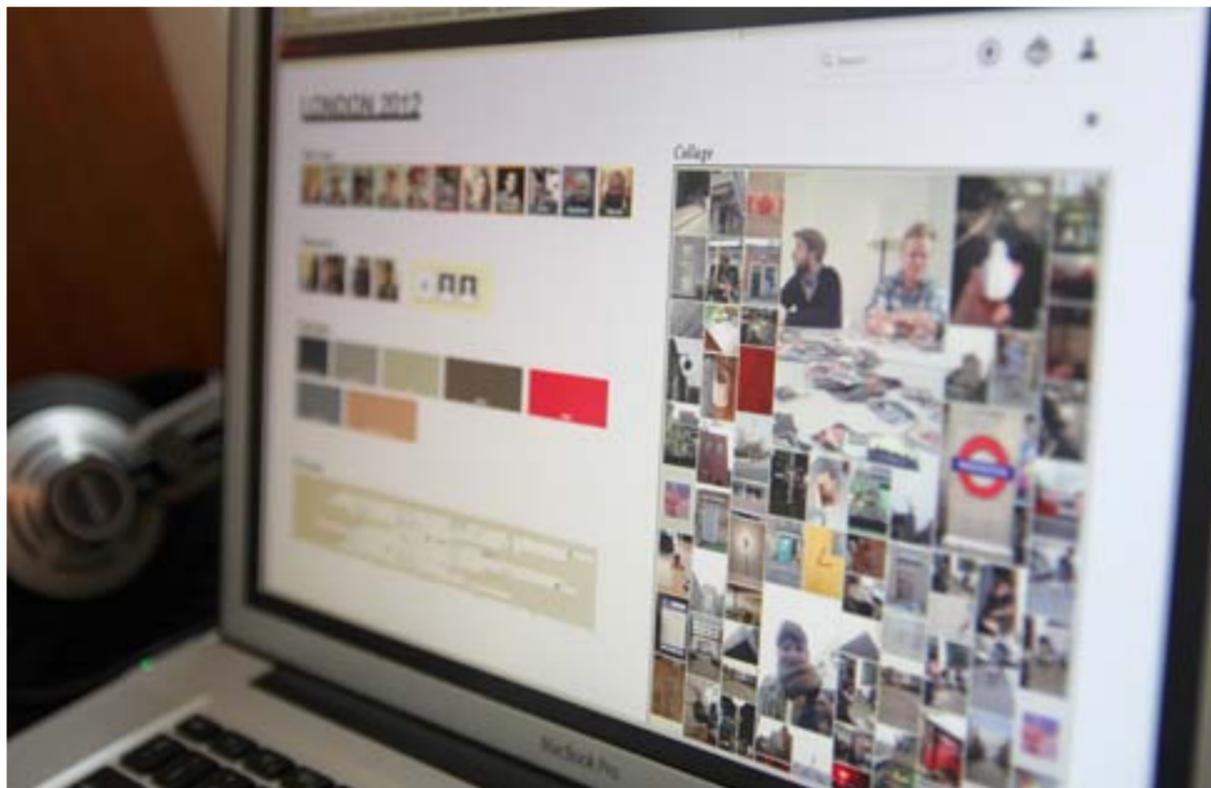


I imagine that the tool can be effective for removing pictures from batches as well, possibly by changing privacy settings to hide the them from the public or a group.

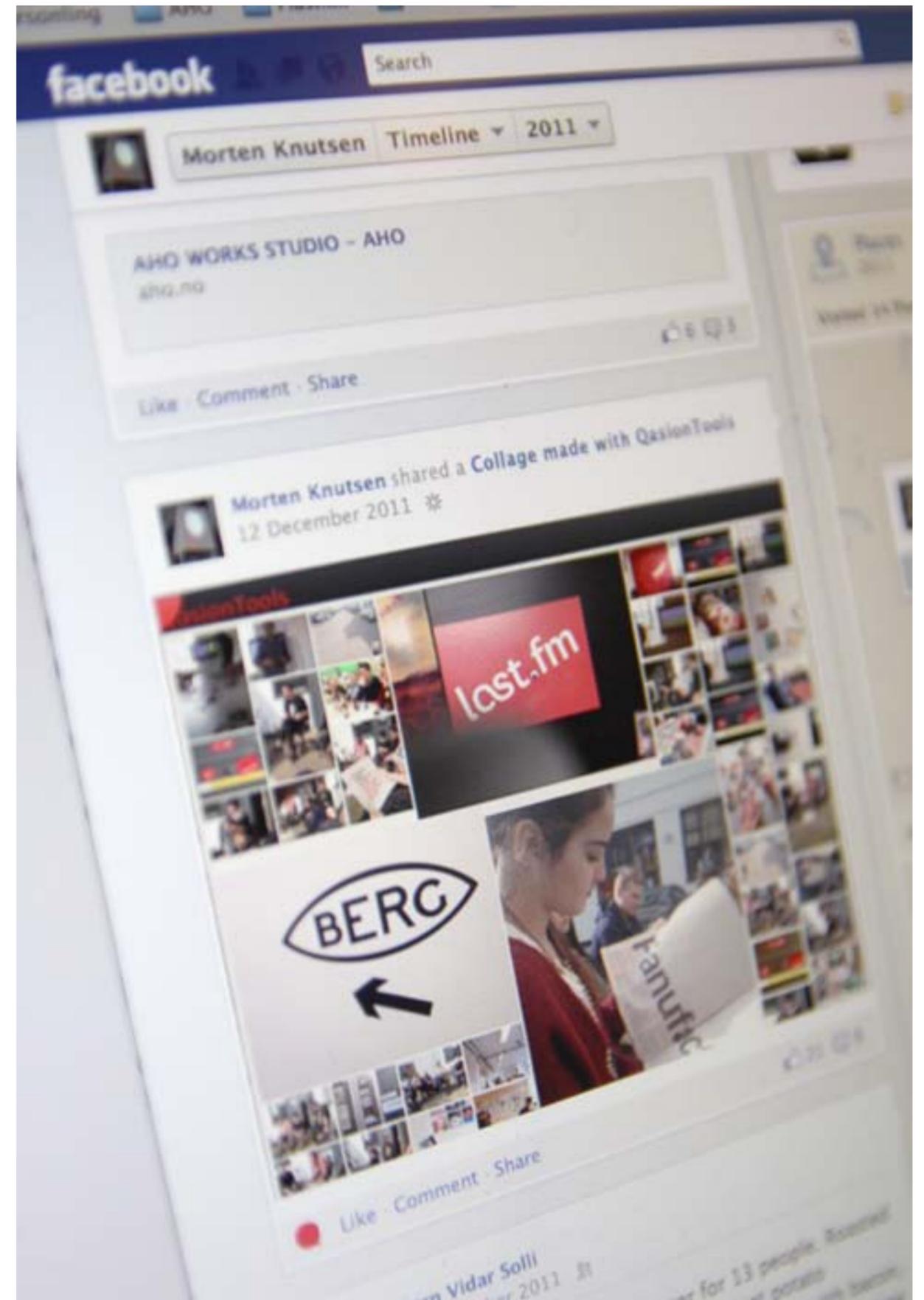
Integration

The simplicity of the collage tool makes it usable in many different contexts. The layouts can be put together from several peoples content, as it scales the images to fit. A collage could be placed on web pages as illustrations for stories, or printed as physical media, like posters, cards or photo books.

The simplicity of the tool makes it usable in several different contexts.



Mashup interface of an overview page for an event.



Collage shared on Facebook's timeline.

Map

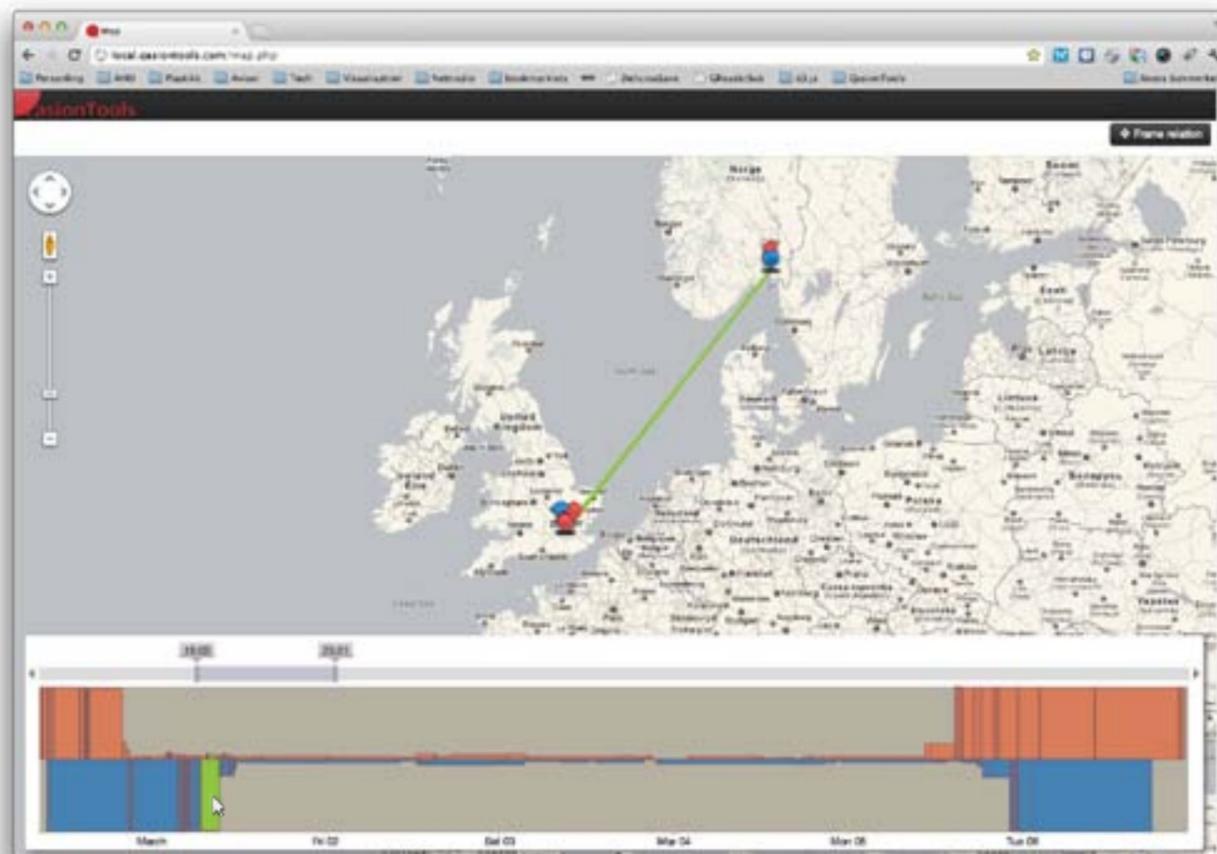
A tool for looking at geo-location data to find patterns and relations between people in time and space.

Travel was the main type of event I wanted to work with for this project. Both because people like to remember their travels, and this activity usually generates a lot of data. People take more pictures, and they leave a trail of visited positions as they move around in the world.

The tool is based around a map, and shows the positions of recorded GPS-tracks over time. Since I only had the chance to work with two location datasets from London, I have focused on the relation between two people.

Interaction

I have built a few ways to navigate through the data. The graph in the window on the bottom, represent the movement of two people over time. The height represent distance to a certain point, in this case the centre of London, adjusted on a logarithmical scale, to try



Map tool in a browser, showing parts of two different recorded location tracks from the London trip, and the distance between two of the points.

to show both short and long distances on the same graph.

The bars are placed on a timeline, and starts at the point in time they are registered, and end when a new point is recorded. The data is recorded with a smartphone app called OpenPaths, which is made to conserve battery by only recording points when the phone moves. This is the reason for the un-even widths of the bars. The person is assumed to be at the position where he or she was “last seen” by the GPS.

By moving the mouse cursor over the graph, markers representing the positions of the people show up on the map, with a line showing the distance between them at this point.

Above the map, a button makes it possible to “frame relations”, by panning and setting the bounds of the map to fit the selected markers.

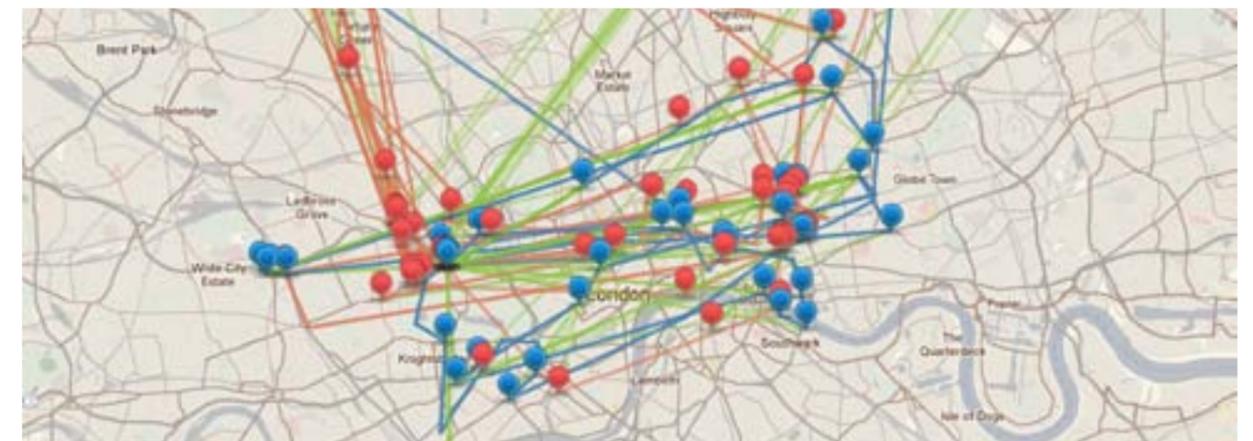


The Frame relation button will adjust the bounds of the map to the selected markers.

Above the graph, there is a “range slider” that can be used to view a period of time. This makes it possible to see a range of positions at the same time. By scrubbing the slider, a range of markers appears and disappears, creating an animation showing people racing around.

Lines of stories?

In the case of the London trip, this tool can be hard to use to make meaning of the markers and lines appearing on the map. Both because the accuracy of the data is sometimes poor, but also because the actual movements cross and the lines and markers overlap, making it difficult to get a sense of continuity.



It would be useful to develop other ways of looking at this kind of data, typically from cities, like accumulated distance, or by finding “hotspots” that indicate importance.

Slow travel

I started developing this tool before I got data from London. I gathered data with the same app from a fellow student and myself. I found that the results worked better over a longer period of time, as the motion over time was more evident. It is also clear that land based travel over greater distance than inside a city creates more clear narratives.

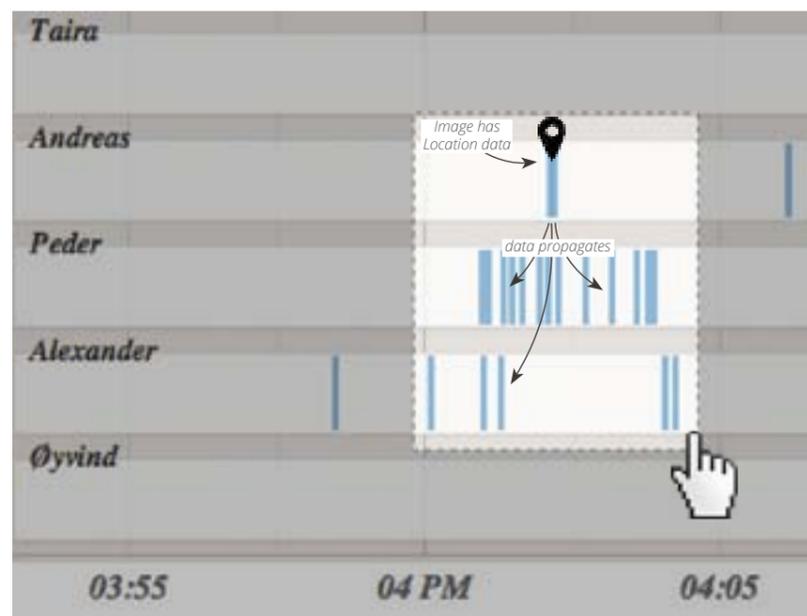


Tracks from two weeks, showing me and another student. Most the time we are in Oslo, but our trips to Rauland and Malmø are a lot clearer.

I believe this kind of data be a very good asset when telling stories that involves long trips, like road trips, or other experience that takes longer time. It could also be integrated into the Timelines tool to give context to “spikes” that indicate events.

Spreading the information

Only two of eleven people provided location data from the London trip. But a lot of us moved around together much of the time. By integrating the map tool with for example the timelines tool, where people’s content can be linked together contextually,



When grouping content from several people into events, the data can spread within the data in the event, making a richer dataset.

the location data can be attached to the pictures of other people in the group.

This would again provide a richer dataset for everyone, and give more material to help remember, visualize and tell stories from our lives.

.....
By integrating Map with another group tool, datasets can be enriched to help tell stories from our lives.
.....



“Map”, public installation 2006-2010, by Aram Bartholl.

About the name

The set of tools is called “QasionTools”.

Even if I have worked with the different tools as separate concepts, they are presented with a common name. They are branded as “QasionTools” and I have created a small visual identity with a logo to bring them together.

The word Qasion is derived from “Occasion”, by moving the O over the two c’. This is to say that the tools are meant to deal with events of special interest, or occasions that we share with our friends and family.

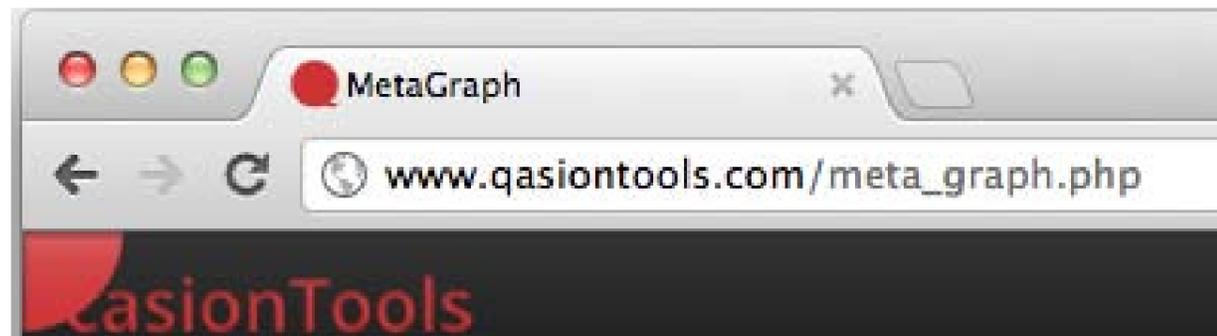
It is not entirely clear how the word is pronounced. My version is to say it in the same way as occasion, without the first syllable.

●ccasionTools

●ccasionTools

●ccasionTools

The story of how the “O” ate the “cc” and became a “Q”



The website that presents the tools are branded the the logo.

Qasion |'kāZHən|

.....*Conclusion*.....

Conclusion

Final thoughts about the process and the future importance of the project.

This project has found its current form, as it has progressed. It has followed the path I set out in the program in many areas, and also found other directions than I imagined before starting. My plan was simple; start working with real data by using code and visualization as main methods, and aim to make useful tools.

The six tools I have ended up with were defined towards the very end of the project period, and they have been mixed and matched in different constellations along the way. They could have ended up as other tools than what they are now, and there are still ideas I did not get to start working on during the four months the project has lasted.

When it comes to the actual results, it has been exciting to look beyond the pure functionality and explore other possibilities I believe the tools have. Even if I have not worked to create a system ready for the consumer market, I am starting to see how the tools could become part of a platform for collaborative storage and sharing of data, as well as looking for meaning and stories. I have started to make ways that some of the tools can work together, and I hope to continue to develop them further to let anyone use them with their own data.

Using code as a main work method makes the project different from traditional ways of running a design process. Sometimes it takes a lot of time to get basic ideas up and running, which could have been sketched out as wireframes and evidenced in Photoshop much quicker. But when the basics are in place, iteration can take place at a very high rate, as I can start working with data as objects and change dynamic properties. I have also found it very useful to have real world data to work with, to shape the functionality and designs around, and get a deeper understanding of data as a material.

This understanding came at the cost of time, and more of the process has gone into mining data from image files and staring at huge spread sheets to find something useful, than I had planned.

In my program, I identified three fields I would work within; Interface design, data visualization and storytelling, and creating “storytelling tools” was defined as a goal. As I have worked, I have

tried to keep the tools from “taking ownership” of the data away from the user. The tools do not “spit out” ready-made stories, but rather lets the users work with the structure and organization of their own material, to help them remember or even discover their own histories. I believe implementing simple features like the possibility to enter stories as text, or record them as sound files, would be one of the best ways to then tell these stories.

Finally I do believe that some of the concepts of collaborative cloud storage will be a growing field where we will see a lot of innovation in the near future. I also believe that practical skills for working with large datasets from a design perspective will be needed as the amount of digital information about our lives only continues to grow.



One of a number of quick iterations over the collage tool.

.....*Appendix*.....

Tools for the tools

An overview of most of the code libraries used in the project.

Working with code to make the different tools come alive have been a big part of my project. I have mostly used JavaScript as the language for creating the tools, which runs in all modern web-browsers. For many tasks there are libraries, or collections of pre-written code available to help out. Here is a list of the most important ones, with a short description of what they have helped me do.



d3.js - Data Driven Documents

<http://mbostock.github.com/d3/>

This javascript library by Mike Bostock is a rising star in the data visualization community. It lets you “connect” sets of data (like meta data from pictures) to elements on a webpage to make visual representations of the data, and transform the elements based on change in data using technologies like CSS3, HTML5 and SVG. Also has a lot of useful methods for working with time scales, animation and more.

Isotope

<http://isotope.metafizzy.co/>

A javascript library by David DeSandro that helps out with layout of elements on webpage. Used in the Collage tool, for making pictures stack neatly. Isotope also has features for sorting and filtering elements.

Known as the big brother of the jQuery Masonry plugin.

jQuery

<http://jquery.com/>

jQuery is a widely used javascript library that just makes a lot of programming tasks easier.

Google Maps API

<https://developers.google.com/maps/>

Google maps is widely known, and this API is what is used to make custom versions of these maps on webpages. In addition to the map graphics, it has a lot of methods for calculating distance and other tasks relating to geography.

Bootstrap

<http://twitter.github.com/bootstrap/>

Made by the people behind Twitter. This is a front-end toolkit for helping out with layout of webpages, and appearance and behavior of interactive elements like buttons and forms. Makes it easier to build “responsive” designs that work on different screen resolutions and mobile devices.

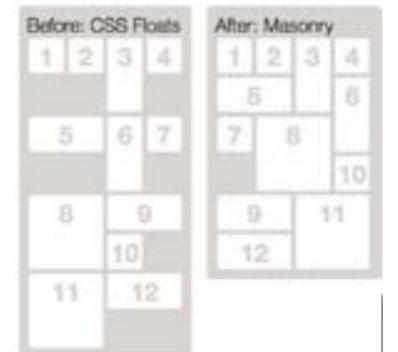


Illustration of Isotope/masonry in action

Processing

<http://processing.org/>

Open source programming language for working with images, animations and interactions.

ExifTool

<http://www.sno.phy.queensu.ca/~phil/exiftool/>

This is a program for working with meta data in photos. It is a Perl-library that is accessed as a command-line application through terminal. It is made and maintained by Phil Harvey, who collects and decodes meta data from a huge amount of different cameras. This is very useful, as this data is not very standardized between camera makers, and the program is currently being used by Flickr for extracting meta data.

Also has a very impressive rate of releasing updates.



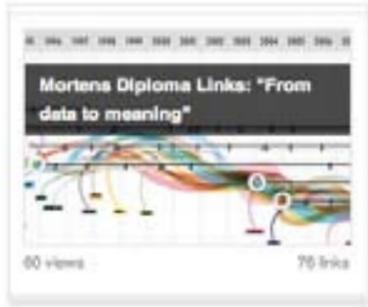
Phil Harvey

ExifTool Updates »

ExifTool 8.88	- Added a new Canon LensType (thanks Genid Ertmann) Decode a number	7:16 PM	🔗
ExifTool 8.87	- Added a new PentaxModelID Added new values for some Panasonic tags	Apr 9, 2012	🔗
ExifTool 8.86	- Added a few new values for some Panasonic tags Added a new	Apr 3, 2012	🔗
ExifTool 8.85 (production release)	- Added a couple more Olympus CameraType values	Mar 25, 2012	🔗
ExifTool 8.84	- Added a few more SonyModelID's (thanks Joe Rossi) Added a new	Mar 17, 2012	🔗
ExifTool 8.83	- Added a new SonyModelID and a new Nikon LensID (thanks Gregg Leo	Mar 13, 2012	🔗
ExifTool 8.82	- Added ability to extract information from PostScript-type OFONT files	Mar 13, 2012	🔗
ExifTool 8.81	- Added some new Canon, Pentax and Sony/Mirota LensType's Added a	Mar 9, 2012	🔗
ExifTool 8.80	- Added a new Olympus CameraType Improved geotagging to tolerate out of	Feb 26, 2012	🔗
ExifTool 8.79	- Avoid deleting the JPEG APP14 Adobe segment when deleting all	Feb 20, 2012	🔗
ExifTool 8.78	- Added basic read support for a few obscure audio formats (LA, OFR, PAC,	Feb 11, 2012	🔗
ExifTool 8.77 (production release)	- Added some new and updated some existing	Jan 27, 2012	🔗
ExifTool 8.76	- Added -sort option to sort output by tag name or description Added support	Jan 18, 2012	🔗
ExifTool 8.75 (production release)	- Added -php output option (thanks Marcel) Decode	Jan 8, 2012	🔗
ExifTool 8.74	- Added read/write support for Hasselblad PFF images Added ipzCore args	Dec 28, 2011	🔗
ExifTool 8.73	- Added read support for OpenEXR and Radiance RGBE images Added a	Dec 17, 2011	🔗
ExifTool 8.72	- Added support for reading XMP from INX files Added PDF HasXFA tag	Dec 8, 2011	🔗
ExifTool 8.71	- Added two new Olympus LensType values (thanks Martin Hibers) Avoid	Nov 19, 2011	🔗
ExifTool 8.70	- Compatibility Notice: Changed order of operations when batch processing	Nov 15, 2011	🔗
ExifTool 8.69	- IMPORTANT: Fixed bug which could corrupt GIF images when writing a	Nov 9, 2011	🔗
ExifTool 8.68	- Added a new CanonModelID and a new SonyModelID Added new Canon	Oct 21, 2011	🔗
ExifTool 8.67	- Added a new Canon LensType (thanks Norbert Wassor) Decode tags from	Oct 13, 2011	🔗
ExifTool 8.66	- Added the ability to use "\$GROUP:all" in -if and -p expressions (evaluates	Oct 3, 2011	🔗
ExifTool 8.65 (production release)	- Added a few new CanonModelID's Added a new	Sep 24, 2011	🔗
ExifTool 8.64	- Added 2 new ACOSse XMP tags (thanks Hannes Leubbers) Added a new	Sep 10, 2011	🔗
ExifTool 8.63	- Added support for a number of new Open Document file extensions Added	Aug 27, 2011	🔗
ExifTool 8.62 - "JPEG2000 Update"	- Added read support for JPEG2000 codestream	Aug 21, 2011	🔗

List of ExifToolupdates.

Links



Through the project, I have collected links from the web in a “stack” on Delicious.com. The links are related to many different aspects of my work, from inspiration to technical solutions I have found interesting along the way.

The following pages contain a screen grab of the list of links. The blue boxes under each link are my notes. These annotations are written for myself, but might give some context as to why the links are included.

The stack is available online here:
<http://delicious.com/stacks/view/H0J2sP>

Timeline
30 saves <http://timeline.vorte.co/examples>
A tool to create and embed timelines in html, based on csv or json data. Quite nice idea, interface seems a bit buggy.

Projects | timeplots.com
22 saves <http://timeplots.com/projects/>
Very detailed infographics, mostly about american politics. Very information dense, but still nice-looking.

How I automated my writing career - O'Reilly Radar
52 saves <http://radar.oreilly.com/2011/11/automated-writing-software.html>
Article about automated narratives, written by computers, based on data and code. Used for sports, but indicates other different areas where it can be used. Interesting aspects are hyper-local content and personalization. And removing writing about generic content as a human job. Shared by HERO

Distance information in meta data
1 save <http://u68.r24.qeemss.ca/texttool/forum/index.php/topic,3688.0.html>
Phil Harvey: "In general, cameras do not store accurate focus distance information. The distance stored by Canon cameras is very rough and not very useful. Some Nikon cameras store more accurate focus distance, but I haven't seen this information from Sony cameras." I wish this was not so..

Bret Victor - Inventing on Principle on Vimeo
57 saves <https://vimeo.com/36579366>
Bret Victor on his principle:
- Creators need an immediate connection to what they create. (examples: code and animation)
Two golden rules of information design:
- Show the data
- Show comparisons
Other principle-people:
Larry Tesler (at some point) and his principle:
- "No user should be trapped in a mode" (text editor)
Doug Engelbart:
- "To enable the mankind to solve it's urgent problems" - (knowledge workers).
Allan Kay:
- "Amplify human reach, and bring new ways of thinking to a faltering civilization that desperately needs it"
Richard Stallman:
- "Software must be free" (as in freedom)

Behind The Scenes Of Tourism New Zealand (Case Study) | Smashing Magazine
30 saves <http://www.smashingmagazine.com/2013/03/06/behind-scenes-tourism-new-zealand-...>
Nice article w/interview describing how the "Tourism on New Zealand"-site is made, using image animation in canvas, and some more explanation of sprite-sheets and image loading for good performance. Also comments about the concept process.

OpenPaths
173 saves <https://openpaths.cc/>
Free, secure service for recording location. It's run by New York Times, but they do not get your data. Has apps for iPhone and Android, to record location and upload it to the systems servers. Apps are designed with minimal battery drain in mind. Has an API for accessing the data.

Mapping Flickr colors again. Better late than never. | Andy Woodruff
3 saves <http://andywoodruff.com/blog/mapping-flickr-colors-again-better-late-than-n...>
A guy trying to map out average color of pictures taken on a map, based on Flickr photos. Interesting discussion in the comments about technique to get the colors.

Storybird - Artful storytelling
115 saves <http://storybird.com/books/>
Collaborative tool for making stories (focus on children's book-like stuff), based on premade graphics. Nice, easy interface.

The Sexperience 1000 - Sexperience
117 saves <http://sexperienceuk.channels4.com/the-sexperience-1000>
Nice site by mint digital, showing data from a survey about sex. Ability to follow certain people or groups, sort and filter on many criteria.

HTML5... 4... 3... 2... 1... Get I Think Quarterly by Google
6 saves <http://www.thinkwithgoogle.com/quarterly/speed/html-5-overview.html>
A quarterly report from Google, about the digital future. Nice, light layout.

Home - Unfold
829 saves <http://unfold.net/>
Unfolds homepage with parallax-scrolling, and a nice customization of a google map. Cool solution to a mouse-over following menu for map-navigation.

Main Page - InfoVis Wiki
376 saves http://www.infovis.wiki.net/index.php?title=Main_Page
Big reference site for infovis

Learn Photography Concepts
35 saves <http://www.cambridgeinour.com/learn-photography-concepts.html>
A nice site with some very detailed explanations on photography concepts. Nice help for some exist-data, like hyperfocal distance..

Projects - Inventory Studio
88 saves <http://inventorystudio.co.uk/>
Portfolio site with a diverse grid layout, powered by masonry

Shop - Supply
136 saves <https://supply.com/>
Grid-based shop, nice filtering/loading.

news of OMA's statement started around 8PM on...
1 save <http://retarturified.tumblr.com/post/18115075380/news-of-oma-statement-sta...>
Twitter visualization of unknown origin..

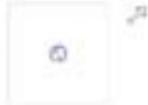
Cyos
952 saves <http://samizdat.cc/cyos/>
"Create Your Own Story"
An interactive walkthrough of stories written to contain multiple storylines and endings.

Faces of New York Fashion Week
43 saves <http://www.facesofnyfw.com/#home>
Photo browsing site for NY fashion week
Nice features:
- Color on mouse over
- Nice responsive design, animated re-ordering on re-scale.
- Lazy loading
- Imports pictures from multiple sources, on #tag-basis
Made by unfold.net

Jonathan Harris on Cowbird | To the best of our KNOWLEDGE
3 saves <http://tbook.org/book/jonathan-harris-cowbird>
Radio interview with Jonathan Harris about cowbird, the storytelling tool.

Improving visualisation - Gallery
45 saves <http://www.improving-visualisation.org/visuals>
A bunch of different examples of charts and visualizations. All are commented and rated by editors and users.

sethoscope: heatmap tool
1 save <http://sethoscope.net/heatmap/>
Geo-heatmap tool made by a guy (/hippie), who is really into geocoding photos and traveling around the world on a giant unicycle. Not very into slick web-design, though :)

<p>30 Grid-Based Websites Awwwards 36 saves http://www.awwwards.com/30-grid-based-websites.html</p> <p>Nice collection of grid-based sites, that displays content in dynamic ways.</p> 
<p>Schoolscope High Crosscliffe CofE Primary School 1 save http://www.schoolscope.com/primary/114224</p> <p>ERGs take on the statistics about school results and other metrics. Generates language that explains the numbers as sentences. Nice take on making data more human-readable. Ex: "This is one of 46 schools in Darlington. Based on what we know from 2008 and 2009, the kids here have excellent teachers and their behaviour is excellent. The exam results here are around the national average and have got worse over the past few years." And "Overall... In June 2008, Ofsted said that this school was "outstanding". Going on what we know, it looks like the kids here are doing well, and this is an improving and well-run school. We feel good about this school."</p> 
<p>What do people really want from their photography apps? 1 save http://catchfree.com/info1.html</p> <p>Infographic showing results of a poll of what user really want from their photo apps for different platforms.</p> 
<p>Flow diagram - Wikipedia, the free encyclopedia 1 save http://en.wikipedia.org/wiki/Flow_diagram</p> <p>List of flow diagrams. Like the allway diagram and the sankey diagrams.</p> 
<p>Picis iPhone app 25 saves http://picisapp.com/</p> <p>App that records a soundclip with pictures. Organizes the "pics" in stories, that can be embedded online. Nice tool, that captures some of the mood around a photo. Also has an interesting preview of a "story" with narrow thumbnails from the collection.</p> 
<p>Glosson Collections Ars Electronica 2010 1 save http://www.glosson.com/collections/ars-electronica-2010?szp=dedt_dater%40UC...</p> <p>Glosson is a web service way to save images in a grid.</p> 
<p>25 Powerful Examples of Masonry /Query Web Design 13 saves http://mashingub.com/25-powerful-examples-of-masonry-jquery-web-design.html</p> <p>A bunch of examples of masonry-based layouts</p> 
<p>Todmaker Talks Quantified Self 1 save http://quantifiedself.com/topics/todmaker-talks/</p> <p>Different interviews with people who have developed digital tools for tracking different aspects of our lives.</p> 
<p>Herde Moidaen - Samtalefortellinger på skiftet. 1 save http://www.scribd.com/doc/9954093/Herde-Moidaen-Samtalefortellinger-p-skiftet...</p> <p>Et masteravhandling om snakke på via Industriarbeidsplass i Odda. Analyse av fortellinger i snakk. Master i Sprikkelig kommunikasjon, NTNU Trondheim, 2006. by herdem in Essays & Theses, School Work, and notes</p> 
<p>EXIF statistics from your photos on Flickr 52 saves http://stats.ghassa.com/</p> <p>Flickr app that brings in a lot of exif data from a flickr photostream, and lets you filter photos by selecting values in exif-categories. Nice basic functionality using the flickr-apt, a bit rough interface.</p> 
<p>LiveOn 2 saves http://www.liveon.com/</p> <p>Tool to save your "life story", and share it with "your tribe". Contains a timeline, time expenses, memories, photos and life questions etc.</p> 

<p>Proust.com - Share your story. Preserve family history. Get to know the ones you... 274 saves http://www.proust.com/</p> <p>Service for saving stories about family members and other loved ones. Idea is to post questions to each other, to get people to tell stories. Rev. Marcel Proust wrote "In Search of Lost Time", earlier translated as "Remembrance of Things Past" in 1913-27. NB: Closing January 31, 2012. :P</p> 
<p>Time that land forgot - Timo Aarni 8 saves http://www.elasticstack.com/2004/07/1/land/</p> <p>Project by Iven and Timo from 2004(?) Displaying geolocated photography. Animating the content into a sequential narrative that "sit somewhere between photography and film, with less emphasis on the single image in re-presenting experience". Suggesting scenarios: - Personal diary/life-log as a help for recollecting events, time periods and patterns. - Used for close network of people like family or friends finding their own perspective in the system. - Wider audience interested in images and information about places. Talks about techniques for mixing meta-data, and working with geo-data. Interesting use of analysis of image meta-data. - Find "sharpness" from image file sizes. - Finding actual brightness from evaluating hue of image compared to EV from meta-data</p> 
<p>Michael Ogawa Software Evolution Diagrams 4 saves http://www.michaelogawa.com/resources/historylines/</p> <p>Software to visualize development of software by showing development as lines on a timeline. Showing real data from code repositories. Idea based on XKCD's visualisation of Lord of the Rings and other movies :)</p> 
<p>Can we create Solitude on the Web? Jonathan Harris on Cowbird MIT Center for C... 4 saves http://civic.mit.edu/blog/natematias/can-we-create-solitude-on-the-web-jon...</p> <p>Good article about cowbird.com, with references to other related systems.</p> 
<p>Jeffrey's Exit viewer 925 saves http://regees.info/exit.cgi</p> <p>Online tool to view ALL metadata in an image on the web or in a local file. Also available as a chrome extension.</p> 
<p>The evolution of the web 2006 saves http://evolutionofweb.appspot.com/</p> <p>Interactive timeline showing the evolution of web technologies. Made with current standards.</p> 
<p>Cooking 2010 - a set on Flickr 1 save http://www.flickr.com/photos/strmlyets/72157622000615047/</p> <p>Food-grid #1: James Bridle</p> 
<p>Locle Camera 1 save http://locleia.com/device</p> <p>Wearable camera that records all the time. If anything interesting happens, press a button and the last 30 seconds will be saved. The rest is discarded.</p> 
<p>Protoviz - Miran's Napoleon 3 saves http://mbostock.github.com/protoviz/tes/napoleon.html</p> <p>Example of Protoviz - A nice tool for "html5"-style graphics for visualization. -REPLACED BY d3.js (http://mbostock.github.com/d3/). But protoviz has better examples.</p> 
<p>Moodstream™ by Getty Images 3380 saves http://moodstream.gettyimages.com/</p> <p>Tool by Getty Images that selects images, video and music based on "mood settings" like happy/sad and warm/cool, and assembles them into a random set, that plays back on the screen. Meant as a brainstorming tool, that can create moodboards.</p> 
<p>food - a set on Flickr 1 save http://www.flickr.com/photos/antimaga/sets/72157526326000040/</p> <p>Foodgrid #2: Chris Heathcote</p> 

Hypothesis - Taking peer review to the Internet. by Dan Whaley — Kickstarter
16 saves <http://www.kickstarter.com/projects/delhy/hypothesis-taking-peer-review-to-...>

Social collaborative annotation system, meant as a new standard for annotating web content.
Features:
1. Inline annotation without consent
2. Capture "stance" (content challenged/supported etc.)
3. Community moderation with domain skew
4. Rate content
- Global channel for content feedback.



Quantified Self | Self Knowledge Through Numbers
578 saves <http://quantifiedself.com/>

Blog/community with lots of interesting info about self tracking/personal informatics.



A Taxonomy of Ideas?
45 saves <http://www.informationisbeautiful.net/visualizations/a-taxonomy-of-ideas/>

A way to categorize ideas?



Rune Madsen - Multimedia Artist
1 save <http://runemadsen.com/blog>

Blog by a smart guy with several interesting points:
- General thoughts on design
- Visualization
- Why ruby
- Thesis essay about "versionae", a system for collaborative version management of idea generation processes. Made as a master project for Interactive Telecommunications Program at New York University.



Statistikk for knapper og glansbilder
1 save <http://nkrbeta.no/2013/01/15/statistikk-for-knapper-og-glansbilder/>

Fin NKRbeta artikkel om emne modeller og tips for analyse av innhold fra twitter, facebook (gsopenbook.org), google insights.



Towards a Model of Information Aesthetics in Information Visualization
16 saves <http://web.arch.usyd.edu.au/~andrew/publications/v07.pdf>

Paper from 2007, proposing a model of information aesthetics in the context of information visualization.
Trying to establish "information aesthetics" as a potentially independent research field. The field is described to be a conceptual link between "information visualization" and "visualization art".
Provides:
- Framework for understanding aesthetics
- Design guidelines
- Review criteria
Places the field with equal focus on:
- Representing abstract data (DATA)
- Visual style and experience (AESTHETICS)
- User input and feedback (INTERACTION)
Maps actual projects in a cartesian model:
- Data focus:
From Intrinsic (focuse - revealing actual data and patterns) to Extrinsic (fye - communicating other meaning that what is directly in the data), based what the users get from the visualized data.
- Mapping focus:
From Direct (graphic close to data) to Interpretive (more subjective/artistic freedom).
Subfields for IA:
- Social vis.
- Ambient vis.
- Informative art



A Periodic Table of Visualization Methods
12177 saves http://www.visual-iteracy.org/periodic_table/periodic_table.html

Classifications of vis. methods, with examples



Arab Spring: an interactive timeline of Middle East protests | World news | guar...
826 saves <http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-...>

An unusual way to display time. Using a double timeline, one regular right-to-left, and one three dimensional inside-a-loop, the visualization of events during the "Arab Spring", gets several parallel routes.



Polite, Pertinent, and... Pretty: Designing for the New-wave of Far...
113 saves <http://www.slideshare.net/backbit/jones/polite-pertinent-and-pretty-design-...>

Presentation by Matt Jones and Tom Coates.



Jeff Harris
16 saves <http://jrharris.org/>

Photographer with a daily picture diary. Jonathan Harris' secret cousin? "Inspirational video" here: <http://vimeo.com/3433164>



"Social Objects are the future of marketing." | gapingvoid
95 saves <http://gapingvoid.com/so/>

Rugh Macleods collection of thoughts on "social objects".
"The Social Object, in a nutshell, is the reason two people are talking to each other, as opposed to talking to somebody else. Human beings are social animals. We like to socialize. But if you think about it, there needs to be a reason for it to happen in the first place. That reason, that "node" in the social network, is what we call the Social Object."



What Makes a Good Infographic? | Visual.ly Blog
7 saves <http://blog.visual.ly/what-makes-a-good-infographic/>

Article about different points in what infographics should be.
- Defines visualization as a contextualization of data that establishes frames of reference for the readers.
- Decoration and ornamentation can "frame" and contextualize a story, emotionally.
- BUT data should always convey the facts behind the data. (Especially when important decisions will be made from the result).
- Novelty effects/eye-candy can introduce "hooks" to capture attention to mundane information.
- Tradeoffs between efficacy/fairing/"looks"



The Present by Scott Thrift — Kickstarter
310 saves <http://www.kickstarter.com/projects/scottthrift/the-present>

A clock that represents one whole year, to give a better feeling of the present.



Designers Behind Facebook Timeline: 5 Keys To Creating A UI With Soul | Co. Desig...
80 saves <http://www.fastcodesign.com/1665414/designers-behind-facebook-timeline-5-ke-...>

About creating something more than a functional tool to identify what happened at different points in time; emotional user experience.
- Time is The Most Universal Framework Across Cultures
- Life feels like a stream, Life's UI should too
- Be personal in content, not through veneer (styling)
- Use real data when testing designs



Clay Shirky on New Book "Here Comes Everybody" - YouTube
290 saves http://www.youtube.com/watch?v=A_0FgYKooqU

Lecture from 2008 about group collaboration (++) arising due to the internet.



Patterns of Knowledge The Excel Charts Blog
4 saves <http://www.excelcharts.com/blog/patterns-of-knowledge/>

Patterns are not meaning in themselves - only when viewed by someone who has the required knowledge and understanding of the data behind the patterns, do they mean something. And patterns can mean different things to people with different backgrounds (ex. a photographer and a doctor).



Nonlinear Storytelling - Game Design Concepts
16 saves <http://gamedesignconcepts.wordpress.com/2008/07/30/level-10-nonlinear-story-...>

A list of different kinds of story structures, for use in computer games. A blog for a course in game design.



frog's 2012 Technology Trend Predictions | Blog | design mind
2 saves <http://designmind.frogdesign.com/blog/frogs-2012-technology-trend-predictio-...>

The Reluctive Social Network: Technology Finally Gets Personal
... The current fervor around cloud computing only exacerbates the problem: now my 10,000 digital photos are in the ether, but am I any more emotionally connected with them and sharing them with my three closest friends in a meaningful way? 2012 is about culling from the terabytes and sharing with the single digits. In 2012, product companies will deliver new products that begin narrowing the social circle and capturing intimacy and authenticity.



CINEMETRICS — film data visualization
997 saves <http://cinemetrics.federicobudbeck.de/>

Student project about analyzing and visualizing entire movies as graphics, using code. Nicely done!



The Traveler's Guide to Happiness | Visual.ly
1 save <http://visual.ly/traveler%2527s%2526-guide-happiness>

Tips and rules for how to get the most out of your holidays... The most important part is actually the anticipation of traveling. **REPORT** you here.



How to use gestalt laws to make better charts The Excel Charts Blog
1 save <http://www.excelcharts.com/blog/data-visualization-excel-users/gestalt-laws...>
Simple reminder about how to work with gestalt laws in data visualisation.



Software Studies: Cultural Analytics
49 saves <http://fab.cafpb.org/softwarestudies.com/2009/09/cultural-analytics.html>
Description of tools for analyzing large amounts of visual data.



Comments

All links -



Suggest a link for this article.

London survey

The survey I made for the group going to London. The goal was to prepare for the data they would collect and learn something about their habits and attitudes towards photography, documentation and sharing.

Study trip to London, 2012

I am doing my diploma this spring on "screen based tools for telling stories about travel", and I will come with the interaction design class (you) on the study trip to London, where I hope to use you as guinea pigs :) This is a small survey to find out a little about your habits, gadgets and attitudes concerning digital content. I hope that you will participate both in this survey, and that you will be willing to give me access to some (or all) of the data you might gather during the trip, so I can use it as a case in my project.
 * Required

Will you be using any kind of digital gadget, device or service to record and document stuff on the trip to London? *
 (If no, then some of the further questions are not for you)

Yes!
 No!
 Maybe

What kind of device(s) will you use for documentation?
 Check the ones you will use.

Compact camera
 Digital SLR (spolrefleks)
 Smartphone
 Other phone
 GPS (other than in phones)
 Video camera
 Other:

Can you list the actual make and model of the devices you will be using?
 - Ex: "Canon 60D and iPhone 3gs". (I want to prepare a bit for what kind of data they produce. If you can't remember, no worries!)

What type of photographer are you?
 This is in the context of traveling and special events. (It's possible to check more than one box)

I always have a camera ready, and shoots anything and everyone that captures my interest.
 I flip out my phone to catch interesting stuff when I see them.
 I often carry a camera, but often feel it's a burden or embarrassing to take pictures when there are people around
 I mostly take pictures of special events, that I want to remember
 I take several pictures of the same scene, to make sure I get the best possible picture.
 I don't really use my camera that much

When you take photos, how important are the following aspects to you:
 1 = Not important, 5 = Very important

	1	2	3	4	5
Preserving memories for myself	<input type="radio"/>				
Telling others about my experiences	<input type="radio"/>				
Creating visually good photos	<input type="radio"/>				
Looking at the pictures at the camera display	<input type="radio"/>				
Showing off the picture instantly on the camera display	<input type="radio"/>				
Getting the pictures off the camera, and sharing them	<input type="radio"/>				

Are there any specific themes that you will be documenting or "collecting" on the trip?
 Examples: street art, architecture, numbers, people, colors...

What type of sharer are you?
 Select the type that best describes how you share content online (It's possible to have multiple personalities in this case):

I share everything with everyone.
 I carefully select the best pictures, and put them in online albums.
 I share pictures and thoughts momentarily, whenever I feel like it.
 I carefully set the privacy settings, so I know who sees what.
 I send pictures or links directly to the people they concern.
 I show my pictures to people physically in person.
 I keep everything to myself.
 Other:

Which of these services do you use to share content online?

Facebook
 Flickr
 Picasa
 Youtube
 Instagram
 Path
 Twitter
 Foursquare
 Photobucket
 Dropbox
 Gowalla
 Google+
 Other:

If you are using photography apps for smartphone, how important are the following features:
 1 = Not important, 5 = Very important

	1	2	3	4	5
Cool photo effects	<input type="radio"/>				
Ability to share	<input type="radio"/>				
Make online albums	<input type="radio"/>				
Safe storage	<input type="radio"/>				

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Survey results

Nine of eleven people answered the survey. It is a bit hard to say something in general about the crowd based on so few answers, but it told me that the group would carry a lot of cameras, and probably produce a lot of pictures. Other trends are that preserving memories (for themselves) is a big motivation for taking pictures, as well as taking "good" pictures. They are eager to get pictures of their cameras, and care about privacy settings when sharing them online.

9 responses

Summary [See concrete responses](#)

Will you be using any kind of digital gadget, device or service to record and document stuff on the trip to London?



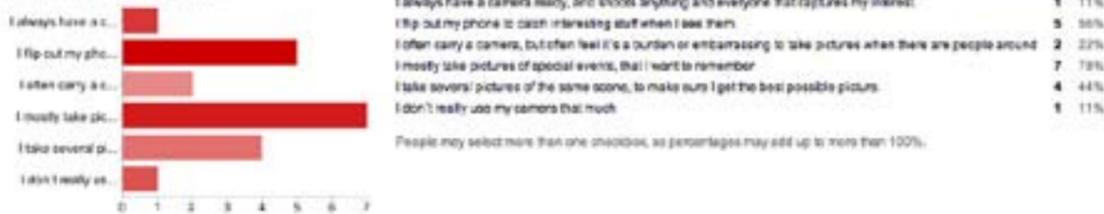
What kind of device(s) will you use for documentation?



Can you list the actual make and model of the devices you will be using?

Canon 600D, iPhone 3gs and iPhone 4 OS, iPhone 3GS, HTC desire HD, Canon G12, SE, Kipeta active, Jansens km (among compact camera) and iPhone4S, HTC desire HD, Digital SLR/Minikon DT000, among phone/phone/Smart...

What type of photographer are you?



When you take photos, how important are the following aspects to you: - Preserving memories for myself



When you take photos, how important are the following aspects to you: - Telling others about my experiences



When you take photos, how important are the following aspects to you: - Creating visually good photos



When you take photos, how important are the following aspects to you: - Looking at the pictures at the camera display



When you take photos, how important are the following aspects to you: - Showing off the picture instantly on the camera display



When you take photos, how important are the following aspects to you: - Getting the pictures off the camera, and sharing them



Are there any specific themes that you will be documenting or "collecting" on the trip?

People, situations, architecture, nature, people, Architecture, people, Random, memory based, People

What type of sharer are you?



Which of these services do you use to share content online?



If you are using photography apps for smartphone, how important are the following features: - Cool photo effects



If you are using photography apps for smartphone, how important are the following features: - Ability to share



If you are using photography apps for smartphone, how important are the following features: - Make online albums



If you are using photography apps for smartphone, how important are the following features: - Safe storage



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