Intimate Data in Relationships:

## Tracking, Sharing, Surveillance – Personal Boundaries?

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Hello, my name is Diana.

Today, I will present you my work which is called Intimate Data in Relationships: Tracking, Sharing, Surveillance – Personal Boundaries?

The Quantified Self

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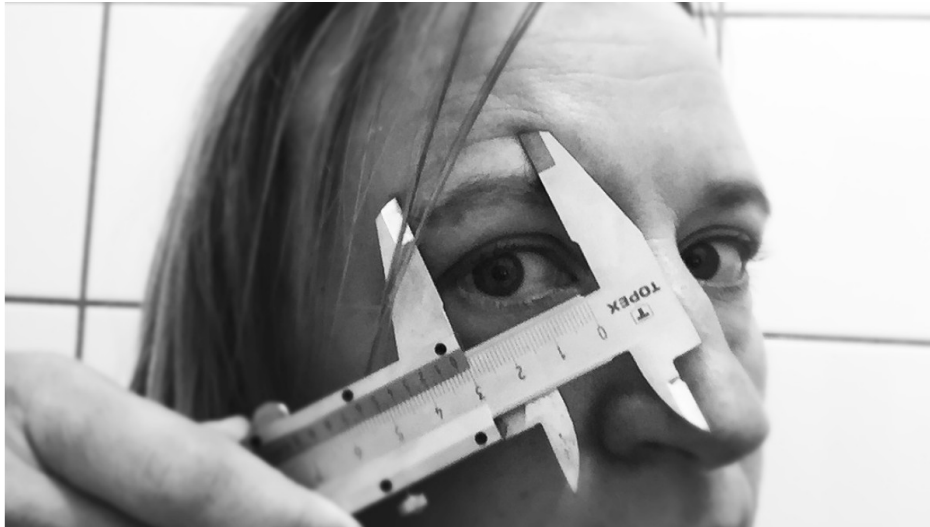
First or all, I want to explain the term Quantified Self. Did anybody heard about this before?

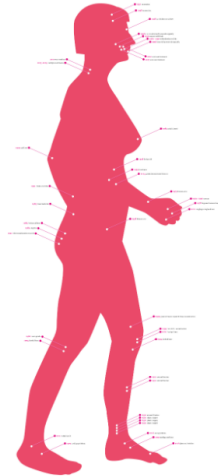I want to explain Quantified Self with this example, which I took from a Meetups of the Quantified Self Group.
In this picture, you can see Ellis. In this project Ellis investigated her body and looked at all her skin scars.

The Quantified Self

Because Ellis has experienced a lot over the years, for instance a car accident.

The Quantified Self

year	month	description	cause	skin	length in mm	width in mm	age in months
1989	7	dog bite	dog bite	x	31	25	352
1991	5	fractured bone plus fleshwound	car accident	x	240	50	313
1991	5	external fixation	car accident	x	14	9	313
1991	5	external fixation	car accident	x	12	10	313
1991	5	external fixation	car accident	x	16	8	313
1991	5	external fixation	car accident	x	13	9	313
1991	5	plastic surgery	car accident	x	240	50	313
1992	1	plastic surgery	car accident	x	80	53	305
1992	1	plastic surgery	car accident	x	98	7	305
1992	3	plastic surgery	car accident	x	98	7	305
1992	1	skin transplantation to ancle	car accident	x	65	55	305
1998	4	5 x stitches on eyebrow	bike accident	x	32	3	222
1999	8	piece of muscle reused	ski injury	x	8	4	218
1999	8	torn ACL - reconstruction	ski injury	x	40	4	218
1999	8	torn ACL - reconstruction	ski injury	x	9	6	218
1999	8	torn ACL - reconstruction	ski injury	x	6	6	218
1999	8	torn ACL - reconstruction	ski injury	x	7	5	218
2000	8	'cyclops' knee	ski injury	x	7	5	202
2004	5	4 stictches underarm	wine incident	x	14	5	158
2016	9	glass cut, 6 stitches	trash incident	x	34	3	9

And over the years, many scars have accumulated.
She measured all her scars in length and wide and came up to about 1m length and 30 cm wide.
She collected also even more information, e.g. on which day the scars are occurred, and found that 28% of the accidents are in May.

Ellis was asked by many people why she does that.

Connected devices + The Quantified Self

INSIGHT

What problem are you solving for?

I want to control my own WELL BEING.

Ellis said that in this way she is able to reflect herself by quantifying her body, and to get more insights and control. With these knowledge, she can influence her behavior in a positive way, for instance be more carefully in May :-)

What data can be tracked?

"I can honestly say that anything that can be tracked is being tracked by someone somewhere."
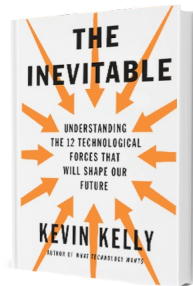
"Self-tracking is much broader than health. It is as big as our life itself."

[Kelly, 2016]

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So, which data can be tracked at all?

Kevin Kelly, the author of the book "The Inevitable", wrote that "[…] anything that can be tracked is being tracked by someone somewhere" and that "Self-tracking is much broader than health. It is as big as our life itself".

What is about intimate data?

- Which data are perceived as intimate?
- How can we track our relationship?
- Why do people track intimate data in relationships?
- What do they do with it?
  - Do they over-trust the tracked data?
 - How do they perceive their tracked data?

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But tracking almost anything that is possible also captures intimate data which are sure to emerge in our lives.

So what is about this? How can we track our relationship?

And which data did we perceive as intimate? And are there personal boundaries? I would like to address these questions in the next slides.

What data are perceived as intimate?

HEALTH CARE | TRACKING | SOCIAL NETWORK | ONLINE DATING | SURVEILLANCE
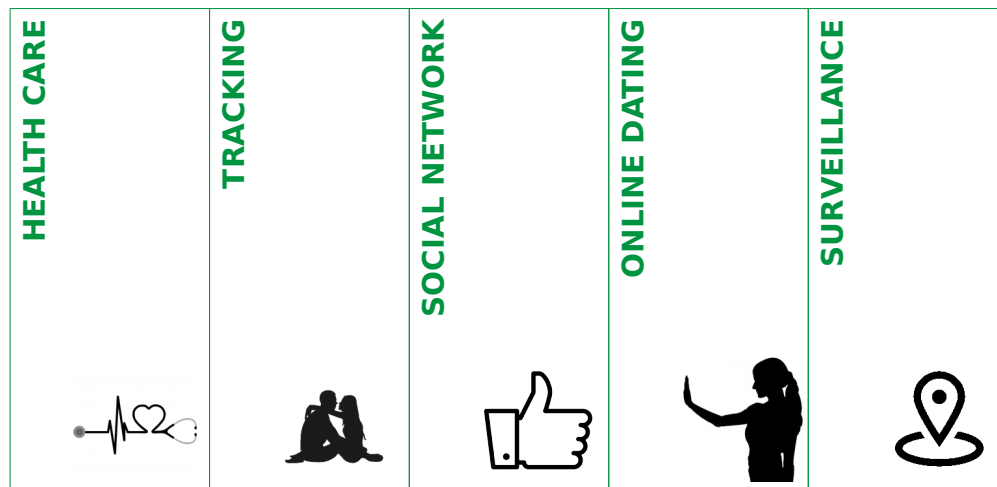
[Levy, 2014], [Lupton, 2015], [Danaher et al., 2018]

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What data are perceived as intimate at all?

This question was not as easy to answer as it seems at first glance, because it depends on several factors. In general it has to be differentiated between the culture and which factors are shaping the socio-cultural live. And what is perceived as intimate is subjective, at all.

I tried to cluster some terms that came from others work which includes topics related to intimate data. Here we can see this topics. It is related to Health care, Reproduction health, Fertility tracking, Sex tracking, but it arise also by using social media and online dating services.

I colored the terms that I will address.

The Life Course of Intimate Relationships

A:
DATING –
SCOPING
OUT POTENTIAL
INTIMATES

B:
TRACKING
INTIMATE
AND
ROMANTIC
PRACTICES

C:
MONITORING
FERTILITY

D:
SURVEILLANCE,
ABUSE
AND REVENGE

[Levy, 2014]

To bring all these terms in order I want to go along the so called *live course of intimate relationships* defined by Levy.

In her work Levy defined four conditions which describes the different stats a relationship can be.

I will explain these conditions in the following and give some examples which intimate data can be collected, tracked and shared.

A: Dating – Scoping out potential intimates

Google	facebook	tinder
▪ Google someone ▪ Find information in the web	▪ Facebook stalking ▪ Search for public entries, mutual friends, likes, etc.	▪ Information about education ▪ Age-rank of matches ▪ When/where online conversation with matched happens ▪ Interesst and jobs ▪ Pictures (Instagram) ▪ Sexual preferences

[Levy, 2014]

Condition A stands for the beginning of a potential relationship. The partner know each other or would like to know each other. The aim is to learn more about the other person.

In this slide I give some well-known examples for technologies or applications that are used for this, like Google or Facebook and Tinder.

Or the Lulu application, I think this is not so well known. The Luliu application gives young women the opportunity to review male students and friends, with with they are connected on Facebook.

- Users disclosed information quickly to strangers
- Most published data were personal data: full name, date of birth, phone numbers, work detail, email-addresses, complete home address

[Nandwani et al., 2018]

The problem also is that users disclose information quickly to strangers.

Most published data are personal data: full name, date of birth, phone numbers, work detail, the complete home address.

Nandwani et al. showed in a study that users disclosured their data because they trust in the authenticity of the other with an active profile account.

B: Tracking Intimate and Romantic Practices

→ Intimate tracking
→ Intimate Gamification

- wearable sex toys/devices
    - Lovely
    - kGoal
- Tracking application
    - SexTracker

[Danaher et al., 2018]

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Next, in Condition B the partners are already in a relationship or something appropriate. The partners known each other better and have an mutual interest, possibly sexual interests.
There is a very large and growing market in this area, offering new wearable devices with internet connectivity and applications for evaluation.

B: Tracking Intimate and Romantic Practices

Risks that may arise:

- Really intimate data stored on servers
- Not always guaranteed that the data are anonymous
- Data can be resold
- Automatic recording by application
- Quantification of act, similar to a sport activity
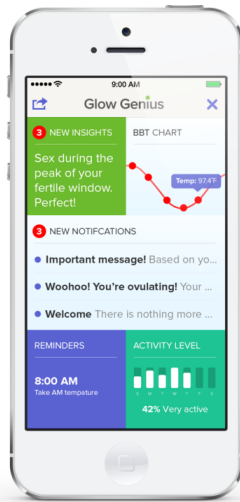- Supports gender stereotypes
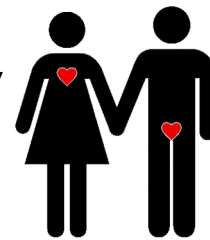
[Danaher et al., 2018]

There are some potential risks that came up by using such technologies.
First, this are really intimate data which can be tracked.
It is not always guaranteed that the data are anonymous.
The data can be resold, because companies have a commercial interest on these kind of data, for example insurance companies.
There is also the problem of quantification the activity, similar to a sport activity like swimming. This supports gender stereotypes and gamification.

C: Monitoring Fertility

- These types of data make woman to an object of surveillance and quantification
- Gives the impression that the cycle of a woman is unsupervised chaotic
- Promote the enhancement of gender stereotypes

[Lupton, 2018]

In Conduction B with Sex tracking, the focus was more on man, with comparison with others and gamification.

In Condition C, the woman is being tracked and monitored, or rahter her menstrual cycle and her body.

The Glow application is well known in this area. This app collects a huge amount of data, which the user can entered. That's are typical data to predict ovulation and fertile days.

These data are further processed and evaluated by the provider in order to make better predictions. And this works really good, even if you do not enter data every day.
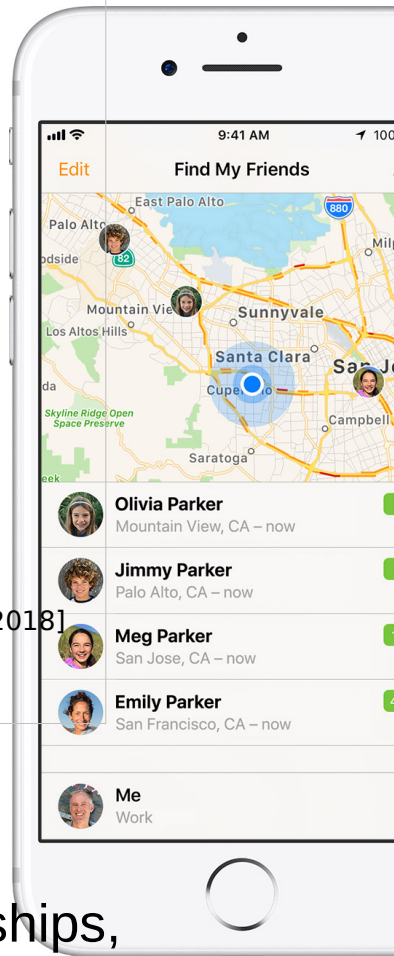
Condition D is about Surveillance, Abuse and Revenge.

Today, surveillance can take place in relationships, because there are several possibilities trough location-based tracking, for instance with the application *FindMyFriend.*

People track their location with the partner, family and friends. However, it is not enough explored what impact this has on a relationships and, above all, the mutual trust in relationship.

D: Surveilance, Abuse and Revenge

- Technologies can be misused for other purposes
- People exploit technologies to intimidate, threaten, monitor or harass the partner, ex-partner...
- Security measures are often not enough in this case

[Freed et al., 2018]

Freed et al. conducted in a study how technologies are used today to harm partners or ex-partners.
For example, they found out that victims are often not aware that they were monitored by their abuser, and they did not know how to turn this surveillance.
In general, one can say that system security is not adequate for this type of attack, since these people were really close, and, for example, security questions can be answered or passwords are guessed. In this way, the abuser get access to the smartphone or the Facebook account.
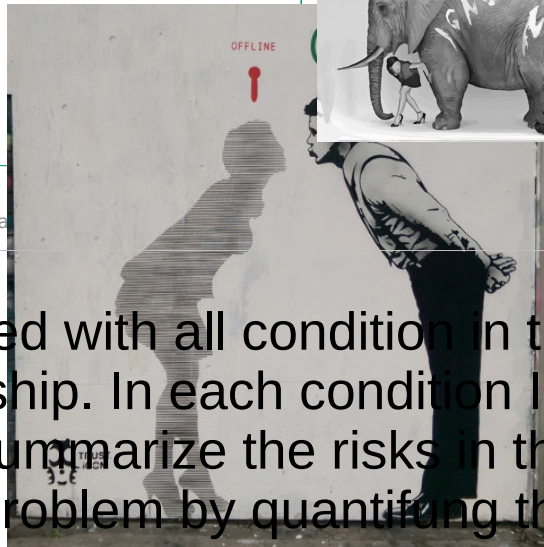
Risks

Quantification	Trust	Privacy
• Risk of losing the reference to the data • User should be aware of purpose	• Focus can be solely on data • Trust can be lost	• Privacy is important and should not be forgotten • Interpersonal issues also play a role

Intima...

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So, now we are finished with all condition in the life course of a relationship. In each condition I gave an example, but I will summarize the risks in this slide.

First, there can be a problem by quantifing the relationship, because there is a risk that the user can be lost in numbers and lose the relation. The user should always be aware of why he or she uses technology in the relationship and what the benefits are.

Second by tracking the partner all the time with location-based tracking applications like FindMyFriends, it is questionable how that affects the trust in a relationship. What is, if, the location data are not always available? Or if one of the partner does not want to be tracked anymore?

And last, the privacy and data security is a big topic, which people often do not care about it. It is not only a problem of one person, but also an interpersonal issue in a relationship.

Benefits

Quantification	Trust	Health Care
▪ Reflect oneself ▪ Get more insights and control	▪ New possibilities of trust ▪ More spontaneity in relationship	▪ Insights into health and activity ▪ More awareness ▪ Better perception

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Open Questions...

- Is location-based tracking already used in relationships today, and to what extent?
- Does mutual location-based tracking of the partners influence the trust in the relationship?
- What are the long-term benefits or consequences of tracking each other?

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Conclusion

- Intimate data arise predominantly from intimate activities.
- View of which data is intimate can change, depending on circumstances.
- What is intimate is partially perceived subjectivly.
- Love and Relationships are influenced by the internet and self-optimization.

The use of technologies in relationships can be useful, but should always be considered. In a relationship, a lot of intimate data comes up. Everyone has to decide for themselves where their personal boundaries lie.

Love and relationships have changed with the advent of new technologies. Today a relationship is influenced by the Internet and the desire for self-optimization. Time will tell where this leads to and how our relationships will look in the future.

Sources for images

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