



# Gadgets for investigative reporting

Beyond hidden cameras – investigating people and things

Marcus Lindemann, May 25th 2018,

Dataharvest, Mechelen

# Marcus Lindemann

- TV journalist with my own production house – documentaries, magazine stories for ZDF and other mainly public, broadcasters
  - consumer topics
  - hidden cameras
- Journalism lecturer and trainer since 1998, specialised in computer based investigations including trainings for police and insurance investigators
- editor and reporter at ZDF (1997-2000)
- MA in Political Economy (Essex)

## On this session

- Investigative Journalism's research & development – a list of gadgets
- Hidden cameras
- Timelapse cameras
- GPS tracking

## Where we are coming from

### **Brand for rental hidden cameras and equipment**

- Monthly use of hidden cameras
- External demand led to starting knopfloch.tv in 2008
- From single sets of cameras to wiring whole flats and houses
- Customers:  
freelancers, editors, stations
- Custom made cameras and hidings (mirror glas)



a complete house wired, live editing in the attic



## Legal framework for hidden cameras - general

- If you can get proof on video, get it.  
For anything else two eyewitnesses are best.
- Only do it if you are sure about the public interest in the topic.
- As always in investigations: There is a difference between investigation and publication.
- Take care about the rights of the people filmed (blurring).

## Legal framework – adopt and find legal solutions

- Sound recording without consent is strictly forbidden.
- Wireless transmission is forbidden if the camera is hidden in every day objects. We have found a legal solution by examining the law very closely.



## Legal experience

- being sued five times vor undercover filming
- won all cases, two of them in higher court only
- in one court case (and other rare occasions) reporter went undercover alone
- 2014: legal even in the a doctor's practice



## Research and development – gadgets and techniques for investigative reporting

### What we have used already:

- DNA testing
- chemical analysis
- Adsense to find sources
- website scraper
- GPS trackers
- time lapse cameras

- use of FOIA and other (new) legal ways
- reading OBD-data of cars
- infrared-cameras/thermographic cameras
- noise measuring

### Future ideas:

satellite imagery, meat quality,  
website and price monitoring

Research and development

Failure, losses and learnings

## First experience with long term observation and GPS Tracking

- Story: Who is stealing bicycles and where are they going?
- 2 cameras
- Recording on hard drives
- GPS device on the bicycle

This video perfectly shows how our bike gets stolen, but we could not track – because of technical and human shortcomings



## Long term 2

Monitoring petrol prices for weeks



Long term 2



## Long term 2

Gekauft



Brinno TLC200 Time Lapse Kamera (3,7 cm (1,4 Zoll) LCD-Display, 1280 x 720 Pixel, SD Kartenslot)

von Brinno

**EUR 133,14** ✓prime

Nur noch 13 Stück auf Lager - jetzt bestellen.

★★★★☆ 9

Andere Angebote

**EUR 109,00** (6 neue Artikel)



Brinno TLC200Pro HDR Zeitraffer Kamera Für Projektaufnahme, Landschaft, 80 TAGE Batteriebensdauer Atemberaubende niedrigen Lichtleistung, Austauschbar objektive

von Brinno

**EUR 196,00** ✓prime

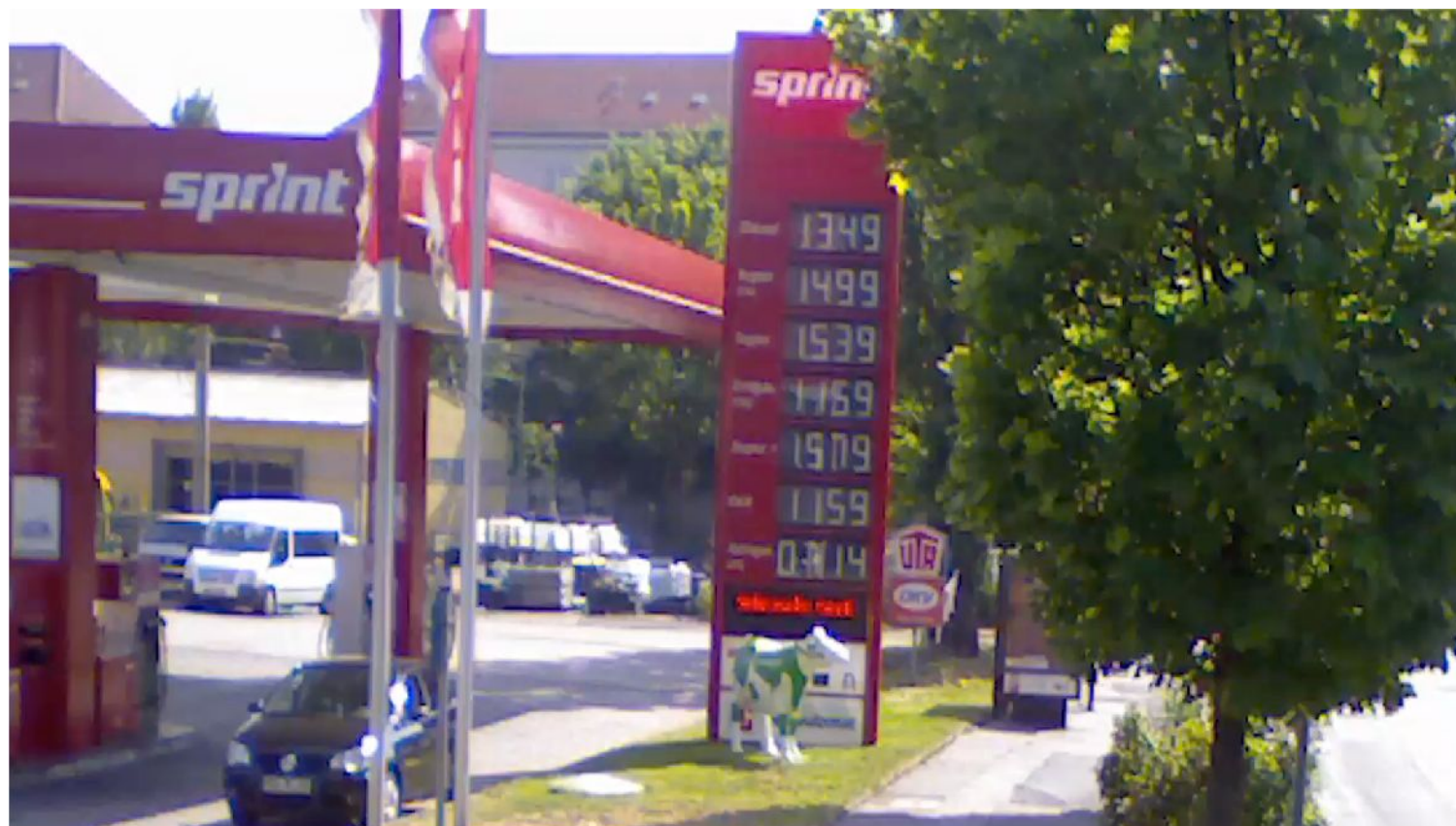
Nur noch 5 Stück auf Lager - jetzt bestellen.

★★★★☆ 20

Produktmerkmale

Ausgezeichnete 4.2 HDR Zeitraffer-Kamera





## Long term 3

### Working conditions of foreign seasonal workers

- Romanian workers picking strawberries in Schleswig-Holstein
- Proofed the time they were away from their accomodation



# Video und Tracking 1

## Navigational systems for cars

- Tomtom Live Traffic, Google Maps mit Traffic and TMC
- Documentation of tracks and time
- At that time Google Latitude
- Data has been saved with logging software
- visualised via KML files in Google Earth



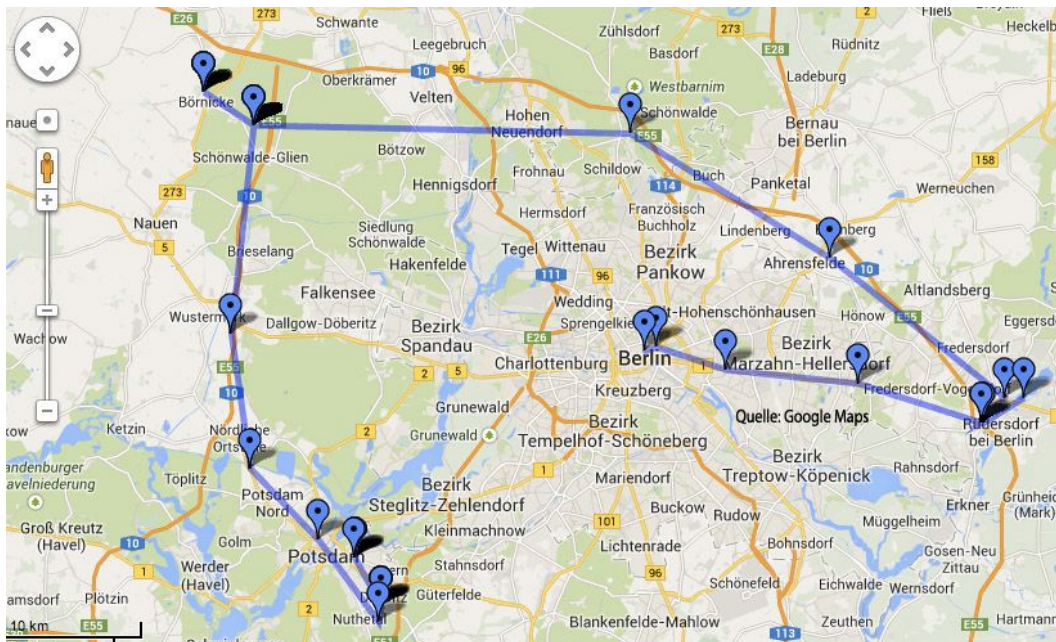
## Video und Tracking 2

### Parcel service DHL – where is my parcel

- Airline security regulations → one solution: trackdot  
2<sup>nd</sup> solution: research the means of transport
- GPS/GSM Tracker plus Smartphone with additional battery
- „bird houses“ covering recipients homes
- hidden camera in one parcel



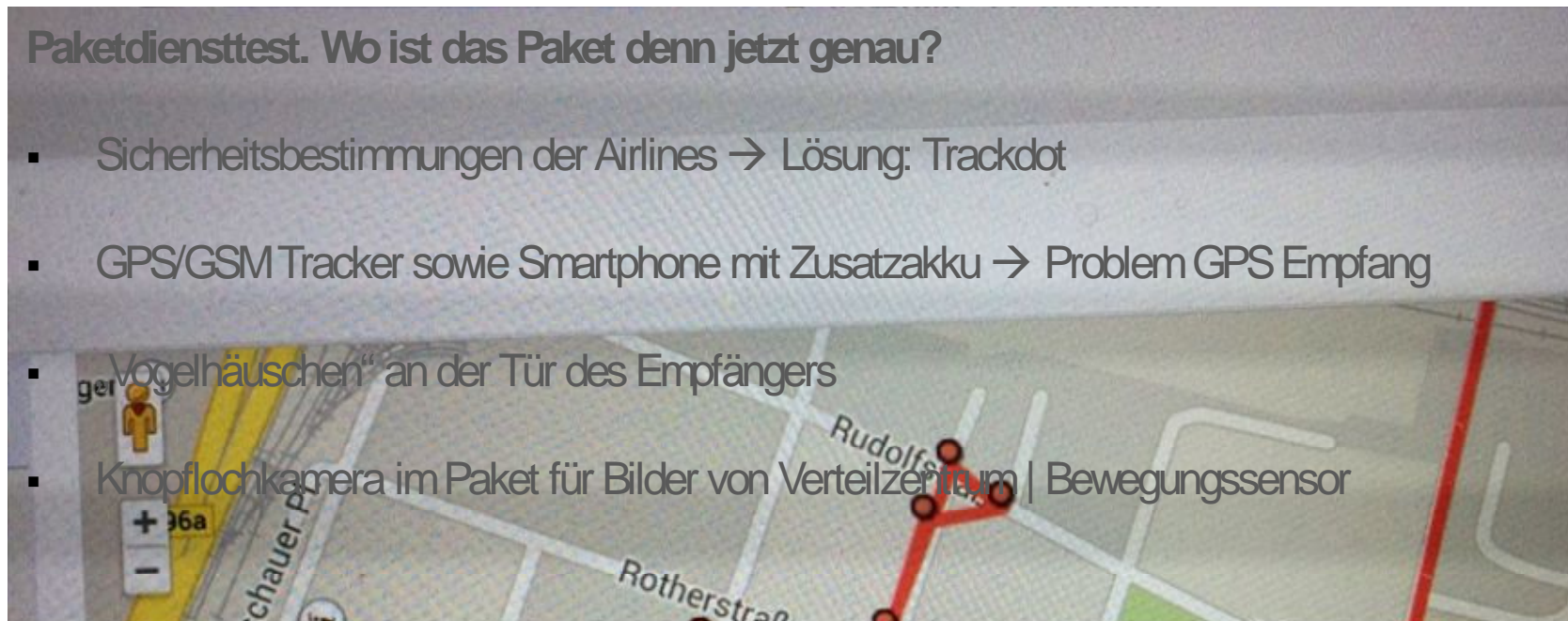
## Video und Tracking 2



## Video und Tracking 2

### Paketsdiensttest. Wo ist das Paket denn jetzt genau?

- Sicherheitsbestimmungen der Airlines → Lösung: Trackdot
- GPS/GSM Tracker sowie Smartphone mit Zusatzakku → Problem GPS Empfang
- „Vogelhäuschen“ an der Tür des Empfängers
- Knopflochkamera im Paket für Bilder von Verteilzentrum | Bewegungssensor



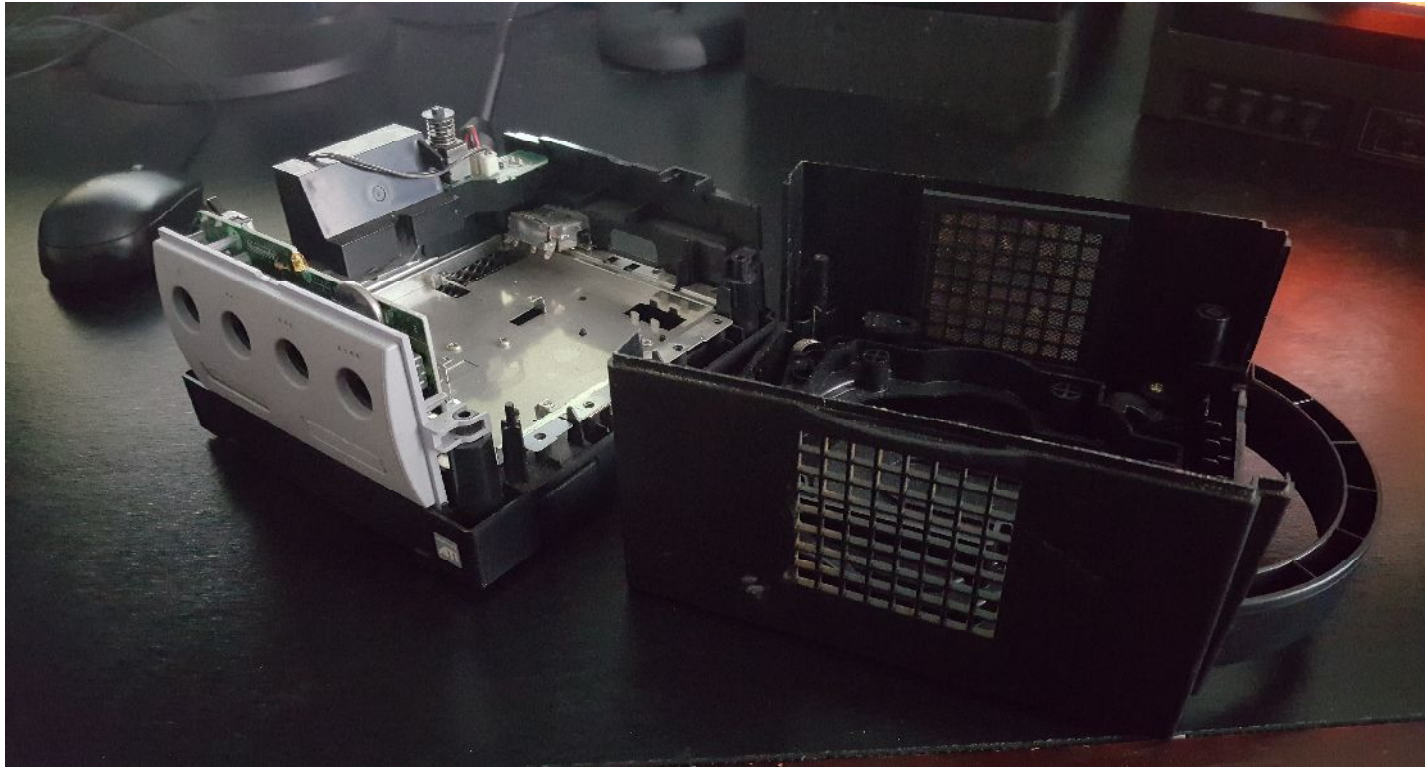




Paketdienst



## Ongoing investigation & live demo



## Gadget curently used for tracking

LKGPS – tracker from China, approx 100 €- currently we run 10 of these

Monitoring online lkgps.net, App also available

<http://www.lkgpstrakcer.com/sale-8616423-lkgps-car-tracking-system-platform-gps-software-lk209b.html>

Probably best but at 300€ <http://www.sherlog.com/> (if recovery of the tracker is secured...)

To find a SIM that roams globally, google [„machine to machine” OR m2m SIM] – from 0,95 €/month

## Team credits

<b>Mirko Mikelskis, head of production</b>	testing GPS devices, logging and visualisation
<b>Ronny Franke</b>	developing knopfloch.tv
<b>Roman Piotrowski</b>	building new hidden cameras and hidings
<b>Maja Helmer</b>	reporter on most of the projects
<b>editors at WISO, ZDF</b>	customer who commissioned most of that work & beared out many court cases with us

Thank you – any questions left? Get in contact!

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