The Data Act: An Economic Perspective

Prof. Dr. Wolfgang Kerber
(University of Marburg)

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1. Introduction

Why is the governance of IoT data so important?

- IoT devices spread very fast, and exponential growth of collected data through IoT devices (and: no indication of an under-investment in IoT devices)
- IoT devices will be **everywhere** (home, working place, public sphere), and **collect data on all of us all the time** (IoT devices are also **„surveillance instruments“**)

=> Governance of IoT data is and will be a very critical issue in a digital society!

=> What data are collected, who has control over them, who can use them for what, and what are the benefits and risks, and for whom?

What I have done so far:

- Analysis of the expected **effects** of the Data Act on its objectives

  Kerber: Governance of IoT Data: Why the Data Act will not fulfill its Objectives

  (forthcoming in: GRUR International; working paper available at: https://dx.doi.org/10.2139/ssrn.4080436)

My presentation:

- three main problems
- suggestions how to amend the DA proposal

2. Main problem I: Exclusive de facto control over IoT data: Introduction of a „quasi-property“ on non-personal data? (1)

- Manufacturers of smart devices can **get through their own technical design exclusive de facto control** over all data generated by IoT device
  => access problems for users and firms for providing services and innovation
- Economic perspective: De facto exclusivity grants data holder a very similar economic position like an absolute exclusive right on non-personal data
- Due to an incentive argument for data generation, the DA justifies and strengthens the exclusive de facto position and protects it („as if“ it would be an IPR)
- But **how large are the incentive problems** regarding generation of IoT data?
- Specific economic situation regarding IoT data:
  + IoT devices are sold, rented or leased, i.e. the users are paying a price
  + not clear why the costs of manufacturer for investing in IoT device and in data-generation should not be covered by the price (as other costs)
  + if data generation necessary for IoT functionality, then users are willing to pay a price that covers these costs (what is the market failure here?)
  + or is it about lower prices for IoT devices through more data monetisation?

=> **existence or extent of an unsolved incentive problem is very unclear !**

2. Main problem I: Exclusive de facto control over IoT data: Introduction of a „quasi-property“ on non-personal data? (2)

Should we have „exclusive property“ position of data holders on non-personal data?

- from the economic rationale of IP law:
  - \+ balancing incentives for innovations vs. benefits of wide-spread use
  - \+ solution of an exclusive „right“ leads to high welfare costs / less innovation
- Potential dangers of an exclusive control of data holders for competition/innovation:
  - \+ monetize them w. monopoly prices => under-utilization of data / less innovation
  - \+ not use it themselves but also not making it available (e.g., strategy getting control over data in order that others cannot use them: blocking innovation)
  - \+ use it for controlling other markets, for which the data is necessary, e.g.
    - > repair and (predictive) maintenance services / other complementary serv.
    - > getting gatekeeper position for entire IoT ecosystems with many markets

=> too strong, unjustified „protection“ of IoT data of data holders implying a wrong balancing compared to the potentially large benefits of unlocking more data

=> providing incentives to design IoT devices to „capture“ and control monopolistically as much data as possible

3. Main problem II: User data sharing mechanism can be expected to be weak and ineffective

- (non-waivable) user rights of Art. 4 and 5 are key instruments:
  - + right of users to require data holder to make data available to third parties for purposes determined by the user (plus „licensing agreement“ betw. DH and TP)
  - + objectives: enabling more IoT-related services and innovation
- But: **many problems and hurdles** that make this mechanism weak / ineffective
  - + insufficient scope of data: only raw data (but also derived/inferred data needed)
  - + often access to (proprietary) software and tools needed for repair and maintenance services (=> technical interoperability not addressed in DA)
  - + innovation of new services will need access to aggregated data sets, which are hard to collect by data sharing via individual users
  - + a lot of hurdles for contract between TP and data holders: bilateral negotiation (FRAND conditions / “reasonable compensation”), “in-situ” data access, confidentiality agreements / trade secrets, technical protection, ...
  - + very unclear whether it works for making more data available to data markets

=> **not sufficient for**: - enabling much more innovative services (aftermarkets)
- unlocking many data for innovation

4. Main problem III: Unclear initial contract of users with data holders about use of IoT data

Art. 4(6): data holders can only use IoT data on basis of contract with user

B2C situation:

- theoretically strong position of consumers but same market failures (information/ behavioral problems, behav. manipulation) as with personal data
- expected result: consumers will (have to) accept contracts with consent to use of all IoT data by the DH (take-it-or-leave-it / buy-out contracts), leaving consumers with only the (non-waivable) user rights of Art. 4 and 5 DA
- problem: freedom of contract (with only a few precontractual transparency rules)
  + no granular choice options, what data are collected, for what they are used, and which firms they are shared with (and: we as consumers are „locked in“)

=> DA does not help to solve this market failure and „empower“ consumers for using this contract for „meaningful control“ over IoT data generated w. their own device

=> no control of extent of surveillance by IoT devices (consent/GDPR does not work)

B2B situations: this can be very different

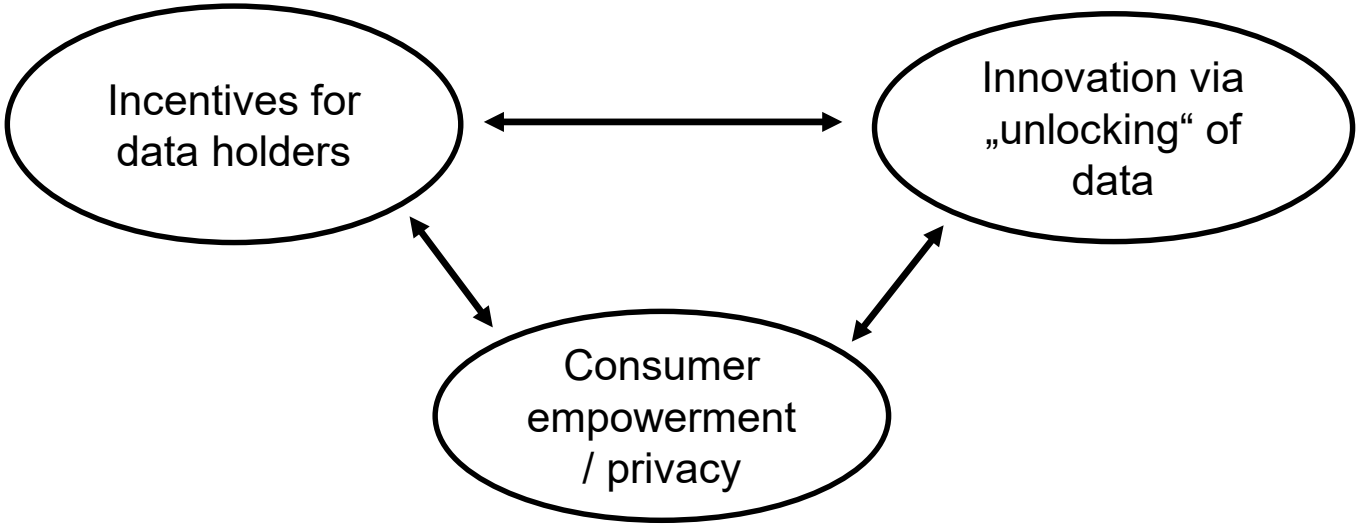
5. Intermediate Results (1)

- Exclusive de facto control of data holders of IoT data remains largely intact, due to
  + weak and ineffective data sharing mechanism
  + control of users through initial contract does not work (in B2C)
- Objectives of DA will not be fulfilled:
  + will not solve the problem of „unlocking of data“ for innovation
  + not enough consumer empowerment
  + (nearly no contribution to fairness of allocation of value from data)
- Main reason: **over-protection of exclusive position over IoT data** of manufacturers and data holders, who in my view are the main beneficiaries of the DA and not the users and not the third parties (as the Commission claims)

=> **need for a significant rebalancing** of the DA in favour of more „unlocking of data“ and „consumer empowerment“

5. Intermediate Results (2)

Trade offs between incentives for DH, innovation, and consumer empowerment



=> **Rebalancing:** Due to lack of serious incentive problems for IoT data, much more emphasis on innovation via „unlocking of data“ and consumer empowerment

Can this be achieved through amendments to the current DA proposal?

=> I am not sure, because it has a very complex architecture

=> small amendments will not be sufficient

6. What can be done? Some suggestions (1)

No introduction of a quasi-IPR on non-personal data through general legal recognition of de facto exclusive control over data by data holders

- let us be very cautious to not introduce (intentionally or unintentionally) an IP-like de facto „property“ on non-personal data,
  - + which manuf./DH can grant themselves through own technical design of the IoT device (leading to the design of entire markets and ecosystems: example: „extended vehicle“ concept of car manufacturers)
  - + leads to huge problems for competition and innovation (e.g. also data power)
  - + recitals should clarify this in a much more explicit way! (the DA already has a principle of non-exclusivity but it is not implemented effectively)
- reduce / eliminate the provisions in the DA that lead to additional protections of the exclusive control of the DH over the data: (not strengthen them by amendments!)
  - + limit/eliminate „in-situ access“, technical protection measures, Art. 11(2) etc. for protecting generated IoT data of DH (cautious protection of „trade secrets“)
- Do we really need this negotiated „licensing“ contract between DH and TP (with „reasonable compensation“) as part of the data sharing mechanism?

  (if DH are not the „owners“ and no clear incentive problem …)

6. What can be done? Some suggestions (2)

Make the user data sharing mechanism much more effective

- since user rights are main instrument for limiting exclusive control of DH and for „unlocking“ data for innovation, then this mechanism must be much more effective
  - + through increasing the benefits for users and third parties and
  - + reducing the transaction costs
- DA entails too many barriers and potential issues of disputes:
  - + too complicated, too slow, too expensive, and not attractive enough for many innovators, esp. SMEs (too many hurdles for innovation)
  - + we have to find much simpler and effective solutions
- user data sharing mechanism should lead to more „liquid“ data markets:
  - + clarification that the IoT data from the user rights can be an input for data markets (incl. combination with other data, and the possibility of reselling)
  - + provisions in DA necessary that help in that respect and not impede it
- Data Act should strengthen a **data sharing-friendly culture** but the DA proposal does the opposite through its very data holder-friendly design

6. What can be done? Some suggestions (3)

More empowerment of consumers over the generation, use, and sharing of generated data from their IoT devices

- Market failure problems regarding the initial contract between data holders and consumers should be addressed with additional provisions
- Prohibition of behavioral manipulation/dark patterns etc. through DH ⇔ consumers
- minimum standard of choice options for consumers might be necessary with regard to the collection, use, and sharing of their IoT data
  + this would also help privacy and data protection (surveillance problem)
- for example: Option that IoT device only generates data that necessary for functionality of IoT device (but no additional data for monetisation, e.g. digital advertising)

Development of different provisions for B2B and B2C situations

- problems, market failures, and possible solutions are very different (often these user rights are not needed in B2B)
- manufacturer can also be the weaker party (perhaps data access right also for manufacturer instead of user)
- in B2B bilateral structure of DA (data holder ⇔ user) does often not fit

6. What can be done? Some suggestions (4)

Need for discussion of other data governance solutions, which are not based any more on such a „property-like“ position of data holders

=> **need for changing the basic architecture of the DA**

- acknowledgment that **also direct data access rights** might be necessary, e.g. with respect to large anonymised data sets for AI
- giving **broad scope to sectoral solutions** (DA should not be a „straightjacket“)
- using more **data intermediaries** and/or **data trustee** solutions for aggregating IoT data and making them available to innovators
- solutions for **independent parallel use and monetisation of IoT data by DH and users** (and in competition w. each other; breaks up „exclusivity“/„data monopolies“)
  - \+ limits scope of initial contract (Art. 4(6)): both have independent „rights“
  - \+ e.g., based upon concept of „cogenerated“ data (no „licensing contract“ needed)
  - \+ can also consider „legitimate interests“ of other party and limit the scope of independent use, but can also privilege certain purposes (like, e.g. innovation and other public interests)
  - \+ (very innovation-friendly proposal of German consumer association vzbv)