



## Willing Buyer, Willing Seller: Personal Data Trade as a Service

A Design Fiction

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- Persona: Salesperson convincing the different stakeholders to adopt the use of the platform

### Pitch

**Q:** What if you had a say and **control** about what data can be collected about you?

**Q:** What if you could **own** your data and make a living selling it at a *fair market rate*?

**Q:** What if I told you that we can help you make that happen?

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- Background: Users are aware that their activities and posts in various social media platforms are then used for targeted advertising and/or bundled and sold to (un)known third party services
- #DeleteFacebook allows you to permanently delete your data, but there are traces of you that remains online (some likes for example).
- Control is important, numerous previous work highlight this.
- We have a way to grant you **control** and **ownership** of your data that allows you to make a living out of it, and remove suspicion around the issue if data collection

## Data Ownership and Control

- Inspired by music, photo and video licensing services.
- Licence agreements guide the details of data packaging and re-use by the Willing Buyer
- Willing Seller has a source of revenue in perpetuity



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- The idea is inspired by videographers and photographers who license their work to news organizations for example, or authors and music writers who receive royalties for the use of their art.
- An example from Dec 19, 2019 comment on a New York Times article on how user locations are collected without their consent: the comment signals both the frustration about the lack of control, and the willingness to sell the data.
- Our platform allows for the Willing Seller to also benefit from their data, for life.

## Use-Case: Long-Distance Hikers



- Rural; Unique Data
- Stress-testing technology
- Sponsorship Model available
- Superstar athletes have endorsement deals, why not democratize it?

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- This is "Tim" He serves as an example of a Willing Seller case. Tim took this picture during his hike on the Appalachian Trail.
- The red circles (wristwatch, voice recorder, phone/tablet, GoPro) shows the different devices/sensors he used to collect his data from his hike
- The green circles present opportunities:
  - He is hiking in a unique environment, in the rural, providing opportunity to collect additional data
  - The green circles (around his hat, sunglasses, shoes, backpack) provides opportunities for new sensors and further, sponsorship for companies interested in testing gear etc.
  - It is not a new concept; Superstar athletes benefit financially from companies' compensation who get endorsement deals in return for the use of the athletes image and likeness
- **Provocation:** If Henrietta Lacks could have accented to sell her cells, her descendants would still be (rightly) benefiting to this day.

## Willing Seller Benefits in Four Easy Steps

- Step 1: Give a brief pitch about your (data/potential) situation to attract Willing Buyers
- Step 2: Bundle your existing data and set a price for it
- Step 3: Set your availability and willingness to supply real time data
- Step 4: Do your thing and profit!

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- I like the number 4, it is pleasant and even, and I'll use it to summarize the benefits to the stakeholders
- Here is how Tim, or any other Willing Seller could use our system to benefit:
- Step 1: What makes you unique? In Tim's case, it's his being "away" in the Appalachian Trail for a long period of time with intermittent access to connectivity and power (for recharging and (re)connecting).
- Step 2: Tim can bundle his existing data after giving his pitch, and set a price that he considers fair
- Step 3: He can then add his willingness to collect additional data
- Step 4: Then all he has to do is simply hike and not worry about finances.

## Data Subscription Service: Pricing and Packaging

TIER 1: BASIC PACKAGE	TIER 2: ENHANCED PACKAGE	TIER 3: ULTIMATE PACKAGE
5% Fee Environmental Data	10% Fee Situational Data	15% Fee Biological Data
ACCESS TO ENVIRONMENTAL SENSOR DATA	ACCESS TO TIER 1 + SITUATIONAL DATA	ACCESS TO TIER 1, TIER 2 AND BIOLOGICAL DATA
ONCE-DAILY ACTIVITY NOTIFICATION	CUSTOM EVENT DAILY NOTIFICATION	UNLIMITED CUSTOM NOTIFICATION
1-YEAR POST-ACTIVITY ACCESS (NON-RENEWABLE)	2-YEAR POST-ACTIVITY DATA ACCESS (NON-RENEWABLE)	3-YEAR POST-ACTIVITY DATA ACCESS (RENEWABLE)
CUSTOM SENSOR DATA AVAILABLE FOR IN-APP PURCHASE	ONE-TIME CUSTOM DATA REQUEST TO SELLER	UNLIMITED BOUNTY CUSTOM DATA REQUEST TO SELLER
BID FOR FUTURE HIKE LISTED	AUTO-BID FOR FUTURE HIKES	INITIATE BID FOR CUSTOM HIKES
SUBSCRIBE NOW	SUBSCRIBE NOW	SUBSCRIBE NOW

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- Here is what bundling would look like from the Willing Buyer's perspective depending on desired granularity:
- On the lower end of the bundling scale is the "Basic Package" which only environmental data (non-personal data) is bundled, the buyer has an option of receiving once-daily notifications. The Willing Buyer has limited opportunities to customize access to additional data at this tier level.
- On the upper end of the scale is the "Ultimate Package" which include all data from previous packages, and also allows the Willing Buyer access to personal/biological data. There is more freedom in this level for the Willing Buyer, and if the data tier is not sufficient for them, they can initiate custom bid for unique data.
- We charge a nominal fee for sensor maintenance, data processing etc... (as outlined in the next couple of slides).

## Willing Buyer Benefits in Four Easy Steps

1. Decide the granularity of the data that interests you
2. Subscribe to the data tier that best suits your needs
3. Pitch data requests and rates that you are interested in
4. You get the benefit of using the data

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- here are the benefits to the Willing Buyer in 4 easy steps.
- Decide on the granularity or the tier of data you decide
- If the data tier is not sufficient, as a Willing Buyer you can request and set rates for the new data

## Willing Buyer, Willing Seller in Four Easy Steps

1. Data sensors for a nominal rate
2. Escrow service for data deals
3. Real-time notifications for anomalous or interesting events
4. Data storage, processing, and analysis

\*551" The fair market value is the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts." Treas. Reg. § 20.2031-1 (b).

INTRODUCTION

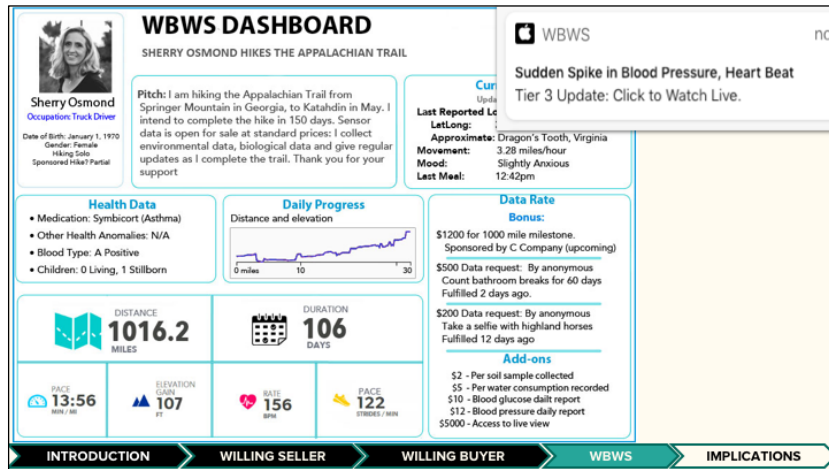
WILLING SELLER

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- As to what we offer in addition to data packaging and subscription model
- We provide sensors to Willing Sellers for a nominal rate
- We enforce trust by providing an escrow service to hold money in escrow that we release to the Willing Seller as soon as the agreed milestone is achieved. The Willing Seller will not have to worry that the Willing Buyer will renege on the agreement
- We also provide a real-time notification service so the Willing Seller will not have to worry about how to report progress, and the Willing Buyer will have a means of on-time notification in case there is an interesting event that occurs.
- We concept of "Willing Buyer, Willing Seller" is as old as the tax law is old, and we agree with it's use in defining "fair market value" (see screenshot)



Willing Buyer time to access the live feed (if purchased) and witness the hypothetical bear chase in real time.

- This is Sherry, she hiked the Appalachian Trail last year, and she gave us permission to take a snapshot of her dashboard.
- Here is how she pitched her hike, highlighting the fact that she is a woman, who is hiking solo and open to collecting data beyond what she has specified.
  - [Aside] The fact that she is a woman, means that her data will have a higher premium than Tim's, because there are far fewer women than men on the Appalachian Trail. If she was a woman of color, she would have attracted even higher rates.
- The health and personal background is important because there are nuances to the data, and it signals to companies such as Symbicort of the opportunity to sponsor Sherry and receive an endorsement in return.
- Other things to mention about the dashboard
  - The distance, duration and pace on the trail are automatically reported
  - The data rate section provides summary of the tasks she was willing to take had has completed/about to compete
  - The add-ons are the ones she added and set a price for that allows Willing Buyers to purchase as an add on to their data package. For example, she is charging \$5000 to grant live access to her video feed while on the trail.
- We provide custom notification, so for example this notification was triggered when there was a sudden spike in BP and Heart beat (could be she was being chased by a bear) the notification is triggered automatically allowing the

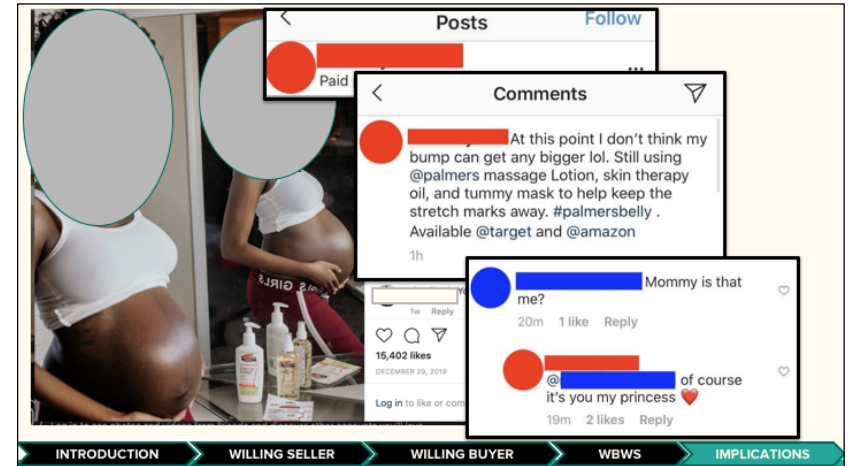
Everybody wins... right?

What could go wrong?

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I hope I have been able to convince you as a potential Buyer/Seller on the usefulness and importance of subscribing to our platforms. Everybody gets something out of it. It's the art of negotiation. Win-Win. Right?

I am sad to report that the system I have described so far does not exist. But as a design fiction, it provided us with a lens for considering the implication of commodifying privacy as a solution to the data control problem. I itemize real world example, and then expound more on the implications subsequently.



- This is a real world example of an Instagram influencer. A good use-case of democratizing the process of exchanging endorsement of uniqueness – in this case her celebrity for money. The Willing Seller (the influencer) benefits by receiving financial compensation, the Willing Buyer (Palmers) benefits through endorsement/advertising.
- Act I: The advertising is disclosed
- Act II: the description, and motivation to influence purchase
- Act III: Here is the interesting jump. A curious response in the comments. The influencer had created an Instagram account for her yet-unborn child. Providing us with an interesting use-case to use in a segue in discussing repercussions.

## Willing Buyer, Willing Seller Implications

- Informed consent's effect on willingness
  - Ethics of transactional data
  - Monetary and invisible price of privacy
  - Exercising the right to be forgotten
  - Permission and ownership
    - Children data and influencer culture
- Transactional data and ethics
- Transactional data and human rights
- Transactional data and culture

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Transactional data and ethics. What happens if the Willing Buyer then uses your data to then deny you employment or increase your insurance premium? The data was obtained from you willingly at a fair market value. Because the data is no longer personal, even though the origin is personal. You are no longer protected. This extends to researchers --- IRB forms a rule base to follow in how to conduct ethical research. WBWS provides an override of the ground rules. And now we are in the new Wild West.

Transactional data and human rights. Even though this may be hard to believe, the fact that privacy is personal offers protection to individuals. GRDP is a use-case, where an individual can exercise their autonomy in exercising their *right* to be forgotten. When we exchange the right by commodifying personal data, we either lose that protection and bring into a clash the

Transactional and culture. This is served by the previous example of an influencer and the unborn child's Instagram account (Beyond the argument of Instagram rules on age limits -- the account is run by an adult). Does the child have rights to the data? If not, when do they receive this right? When they achieve majority (18 years)? Who then owns the data that was collected when the child was a minor?

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These are mostly open questions but using Design Fiction as a tool and WBWS as a lens, we can have a good starting process of discussing both the negative and

positives of data as a transactional item.  
I am looking forward to the discussions.



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THANK YOU

Thank you. I would like to thank my co-authors...

With that, I'm happy to take your questions, and looking forward to the panel discussion.