

Staying at the Roach Motel:

Cross-Country Analysis of Manipulative Subscription and Cancellation Flows

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**Radboud
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A Short Diversion...

- September 2024 INEX meeting
- Leonard Hobbs's talk on the Valentia Cable
 - With a family link.
- Mentioned that cable stations wound down in 1960s
- Contemporary with satellite...
- I have a small family link to this story.

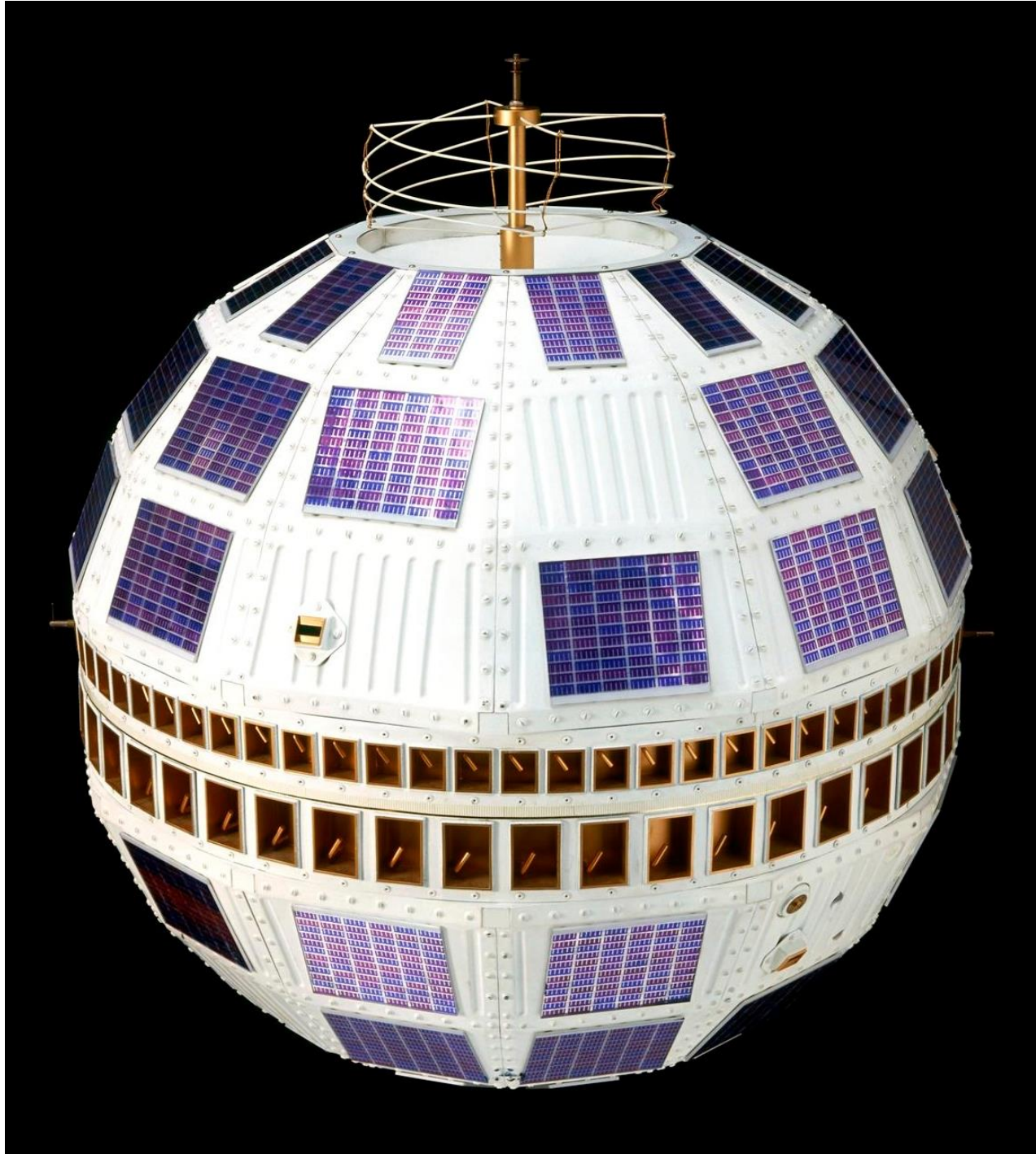


**12.5 THIS
MORNING...**

... and amateur radio operators Malone (left) and Green hear the signals.

| | | | | | | | | | | | | | | |
|---------|------|---------------------------|------|-------|----------|-----|-------|----------------|-----|------|--|-----|----------|----------|
| 2/11/57 | 0634 | W3NUP | E14N | 14050 | 569 | 569 | 14050 | A ₁ | 100 | 0641 | New Orleans LA = (by my watch) Lowell | 525 | 28/9/57 | 31/10/57 |
| " | 0644 | WFGAX | " | " | 569 | 569 | " | " | " | 0650 | Kansas | 526 | 31/8/58 | 31/8/58 |
| " | 0655 | WFOAQ | " | " | 579 | 579 | " | " | " | 0659 | Leawell Kansas | 527 | 28/9/57 | 22/10/57 |
| 2/10/57 | 0532 | K6UYC | E14N | 14050 | 569 | 569 | 14050 | A ₁ | 100 | 0535 | Los Angeles | 528 | 2/10/57 | 29/10/57 |
| " | 0536 | W9WJB | " | " | 569 | 579 | " | " | " | 0543 | Near Chicago | 529 | 2/10/57 | |
| " | 0547 | W7HDL | " | " | 569 | 569 | " | " | " | 0559 | Wash. BOX 36 BOTHELL WASH | 530 | 2/10/57 | 31/10/57 |
| " | 0601 | W6WAX | " | " | 569 | 569 | " | " | " | 0610 | San Francisco before | 531 | 2/10/57 | 31/10/57 |
| " | 0615 | W7FBD | " | " | 569 | 569 | " | " | " | 0625 | Idaho or near | 532 | 2/10/57 | 28/10/57 |
| 5/10/57 | 0640 | K9AVB | " | " | 559 | — | 14050 | A ₁ | 100 | 0648 | 2 QSL from GE | 533 | 11/10/57 | 22/10/57 |
| " | 55 | K9ENC | " | " | 569 | 459 | " | " | " | 0700 | Brockfield Wis. | 534 | 11/10/57 | 11/10/57 |
| 5/10/57 | 2100 | Earth Satellite (Russian) | E14N | 20005 | Strength | — | — | — | — | 2105 | Just came exactly on freq at 2100 & heard the signals. They were long on the frequency & corresponded exactly with the recording given by the BBC on the news. Rang Tom & fed the signal over the line. He agreed with me & we decided a report after 15 minutes would confirm the origin of the sigs. Also passed the information to Mr. J. Campbell of Satcom. | — | | |

| Date | Time | Signal | By | His Freq | His RST | My RST | My freq. | A/A3 | Spot Time | Remarks | QSO M | QSL Int | QSC Recd |
|---------|-------|--------|-----|-------------|------------|-----------|-------------|------|--------------|---|----------|------------|-------------|
| 6-10-57 | 0657 | | | | | | | | | May have been a bit off freq here. Some slight fading. | | | |
| | 0703 | | | | | | | | | Sigs peak really strongly with a slight echo. | | | |
| | 0708 | | | | | | | | | Signal strength drops & sigs become weaker followed by rapid fade out. | | | |
| | 10 | | | | | | | | | Complete fade out. (It would appear that time for transmit is slightly longer than 95ms.) | | | |
| | 15 | | | | | | | | | Shut down. | | | |
| | 0945 | | | | | | | | | Sigs start coming up rapidly. <u>Had to leave for Mass.</u> | | | |
| | 1120 | am | WVU | 20MHz | good | | yes N7 | | | | | | |
| | 23 | | | | | | | | | Sigs start coming up rapidly. - Had very bad car ignition. | | | |
| | 27 | | | | | | | | | Sigs fade out fairly rapidly. Sig strength poor abt 4. | | | |
| | 30 | | | | | | | | | Sigs come up again suddenly to fair strength - not so good as last night. | | | |
| | 35 | | | | | | | | | Now fairly good. | | | |
| | 37 | | | | | | | | | Definitely fading now. | | | |
| | 40 | | | | | | | | | Still there weakly. | | | |
| | 45 | | | | | | | | | Some faint remnants of signal still to be heard. very low. | | | |
| | 48 | | | | | | | | | Signal fades out. | | | |
| | 50/56 | | | | | | | | | Small traces of signal again heard very low. | | | |
| | 1259 | | | | | | | | | Sigs appear & come up fairly rapidly. but now relatively weak. | | | |
| | 1305 | | | | | | | | | Sigs fade right out. | | | |
| | 13055 | | | | | | | | | " reappear. | | | |
| | 12 | | | | | | | | | " fading fairly well. | | | |
| | 17 | | | | | | | | | " weakening to signal very low. | | | |
| | 20 | | | | | | | | | " still there had to switch off for lunch. | | | |
| | 1435 | | | | | | | | | Sigs come in weakly. | | | |
| | 37 | | | | | | | | | Complete fade out. | | | |



Dublin data

From Gerry Lawlor, EI9FV, in Dublin comes a long letter about data comms in his part of the world. He says that the present situation is still fairly quiet, but likely to be more lively in the near future. There is quite a degree of rtty capability around the country, but very little serious activity; "there are too many people with Spectrums and GIFTU programs, and not enough with decent terminal units". However, a number of ST5-type tns have been built over the past year, and a spattering of AMT-2 or TONO devices have appeared on the scene, so the situation may improve. The main interest of rtty people seems to be copying the IRTS rtty news bulletin on Sundays at 1015gmt on 3,600kHz, or on Mondays at 2030gmt on 145·300MHz.

Moving on to Amtor, there has been some progress in the past year or so. Previous to that there were only one or two stations operating intermittently, but now there are probably a dozen or so. Most are using Commodore 64s with MBA-TOR, but there are still a couple using the Kantronics software on VICs or 64s. Gerry is using a PLX Mk-II which he has modified to AMT-1 status. Most activity is on hf, with very little on 144MHz.

Packet is only just beginning to appear on the air, with Jim Malone, EI4N, the only station known to be active at present. However, a handful of new stations are equipped with PK-64 and G0BSX tncs and ready to go. Most interest is in 144MHz, mainly because of the limitations of the G0BSX modem which does not work too well at hf.

Skip to 1987...

February's RadCom Magazine

Google

Some Background...

How do I

[m]aking a process more difficult than it needs to be, with the intent of dissuading certain

BUSINESS INSIDER

Amazon used a sneaky tactic to make it so hard to quit Prime and cancellations according to leaked data



Trevor Noah ✓
@Trevornoah

Amazing how you can subscribe to any service with one click but when you try to cancel, suddenly you're stuck which is always too busy and so you have to finally cancel your subscription in the flesh. ✂️

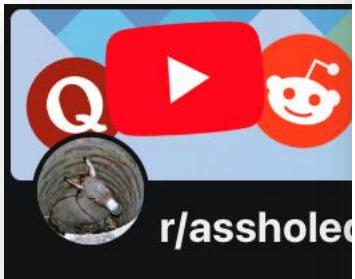
8:04 PM · Jan 19, 2023 · 7.4M Views

17.2K Retweets 1,181 Quotes 146.2K Likes 784 Bookmarks

Cancel subscription

Cancel your NRC subscription? What a pity to hear. We can be reached by telephone on [088-572-0572](tel:088-572-0572), on working days from 8 a.m. to 5 p.m. and Saturdays from 9 a.m. to 1 p.m. There may be another plan available that better suits your needs. We like to help you.

Call customer service



r/asshole



Screenshots in this presentation (and our paper) are taken as part of our data collection in January and February 2023. They are used following Fair Use [1], Fair Dealing [2, 3] and similar doctrines and laws that exempt research-related use from copyright restrictions.

Amazon screenshot taken from an article written by Hannah Towey and Eugene Kim for Business Insider.

Changes in regulations

Negative reinforcement? FTC proposes amending Negative Option Rule to include click-to-cancel and

USA

- Clearly disclose all details about the subscription, including price, renewal dates and how to cancel.
- Obtain customers' expressed consent before charging them for products or services.
- Provide an easy and simple method to cancel subscriptions.



FEDERAL TRADE COMMISSION
PROTECTING AMERICA'S CONSUMERS

Press release

New rules to protect consumers' hard-earned cash

UK

- CMA guidelines (Oct 2021) auto-renewal opt-outs and notifications
- Reforms announced to tackle dark patterns (April 2022).
- Digital Markets, Competition and Consumers Bill (Feb 2024) addresses auto-renewal and cancelling information and highlights that consumers should be able to cancel online at any time.

Screenshots are taken from FTC.gov & Gov.UK

Changes in regulations



Germany:

- Fair Consumer Contracts Act 2022.
- Online cancellation options, clear terminations buttons.
- No more than one further click after pressing this termination button.



The Netherlands:

- Dutch Authority for Consumers and Markets (ACM) guidelines.
- Businesses must provide clear information on how consumers can terminate a contract.
- Should also be possible to terminate it through the same online platform.
- Termination via the website should not involve excessive obstacles such as extensive questionnaires
- Guidelines also highlight that deceptive design disproportionately affects certain customer groups, such as the elderly.

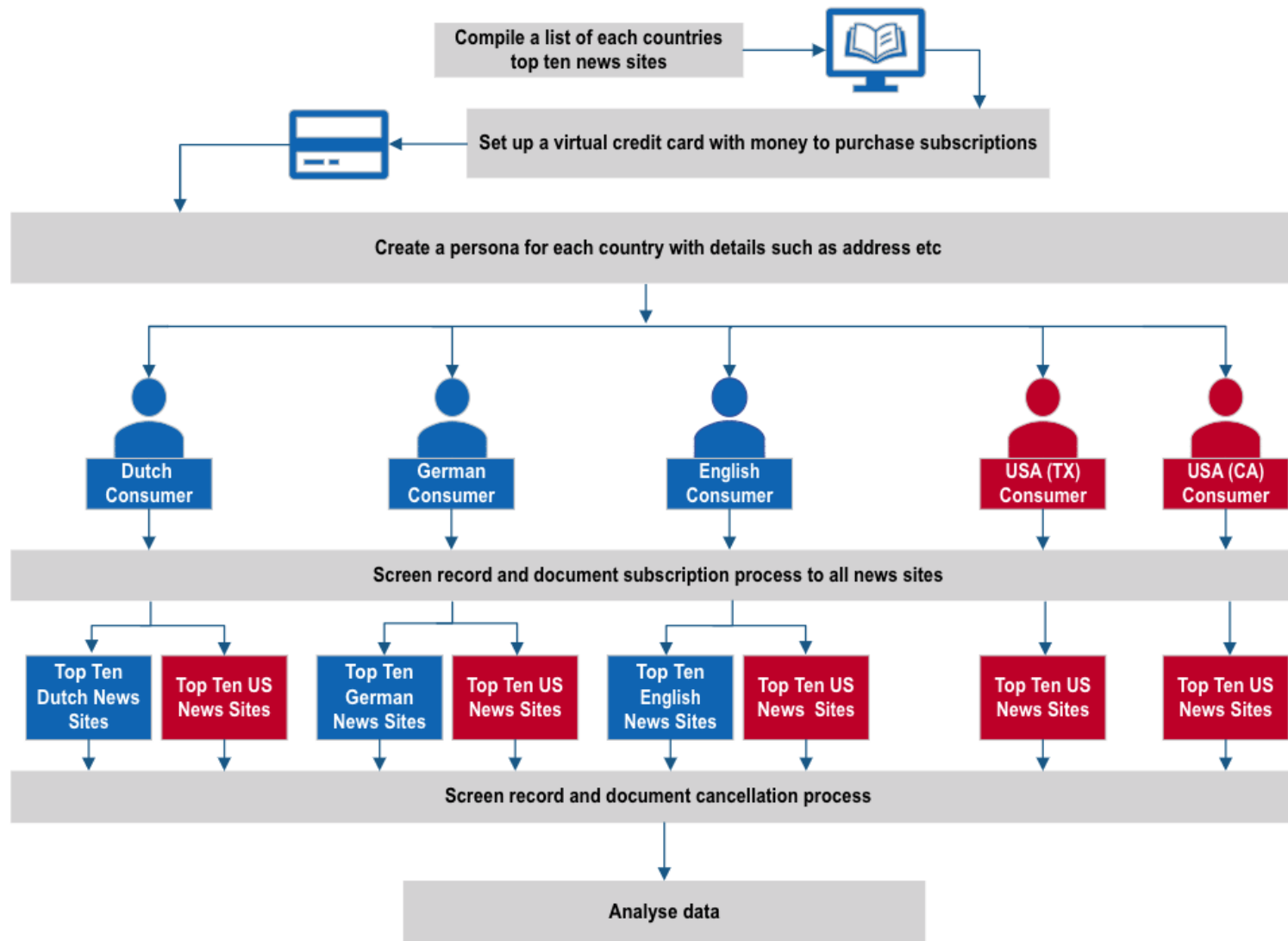
Ensuring a safe and accountable online



Rules for cancelling contracts online

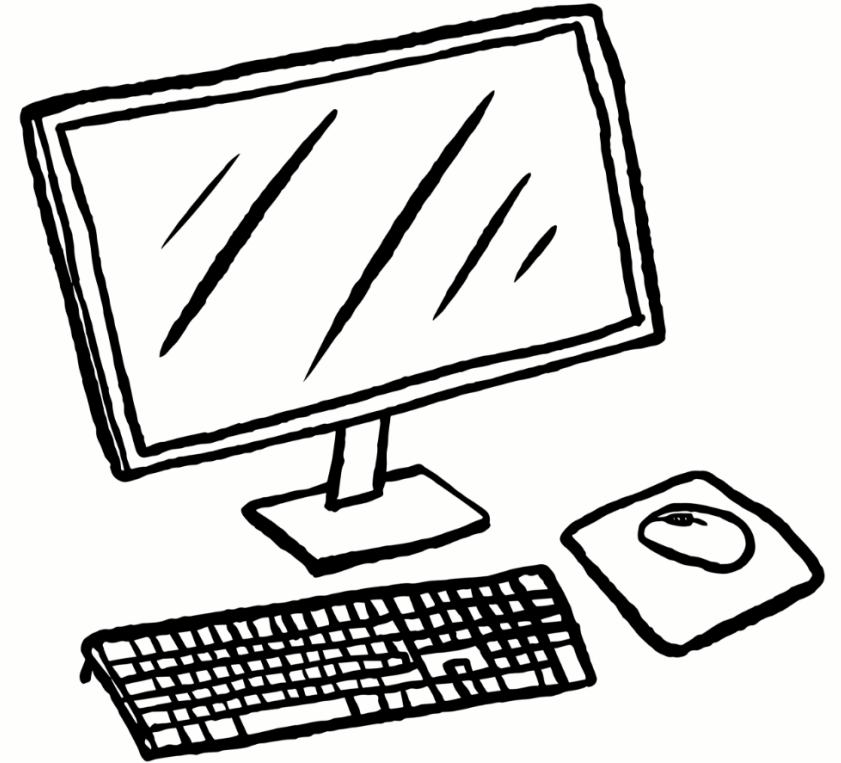
For consumers, it is often very easy to take out a fixed-term subscription, membership or any other contract online. Conversely however, is it just as easy to cancel such contracts? If you make it harder for consumers to cancel their contracts, consumers might be stuck with contracts they actually do not want (or not anymore). This is not allowed.

Screenshots are taken from commission.europa.eu, acm.nl and verbraucherzentrale.de



Here's what we wanted to document

- Renewal Information
- Email Confirmation for subscription and cancellation
- Information on cancelling before and during subscription
- Number of clicks it takes to subscribe and cancel
- Required sign-up data
- Cancellation method
- Exit survey (mandatory?)
- Special offers
- Two-step cancellation

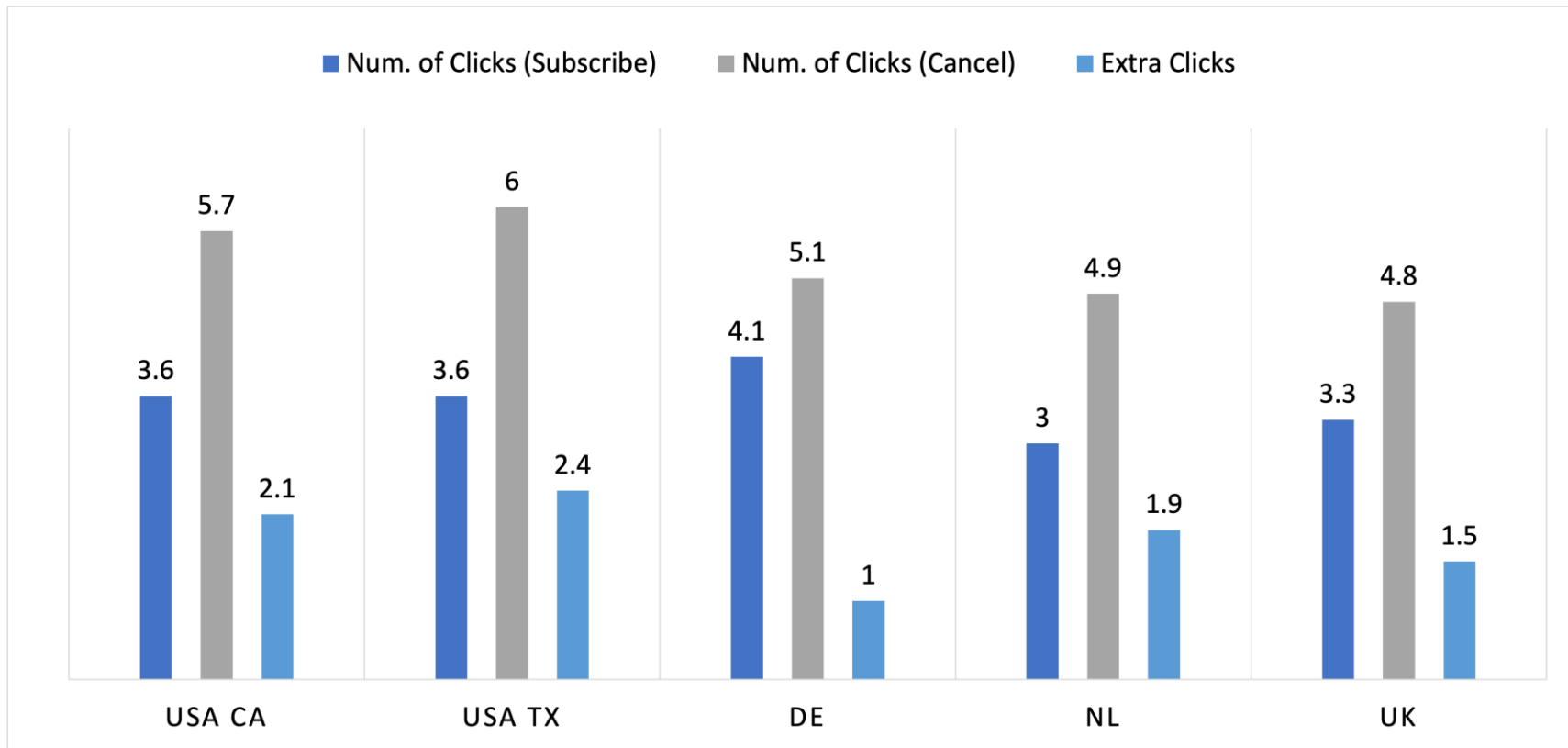


Lets talk results

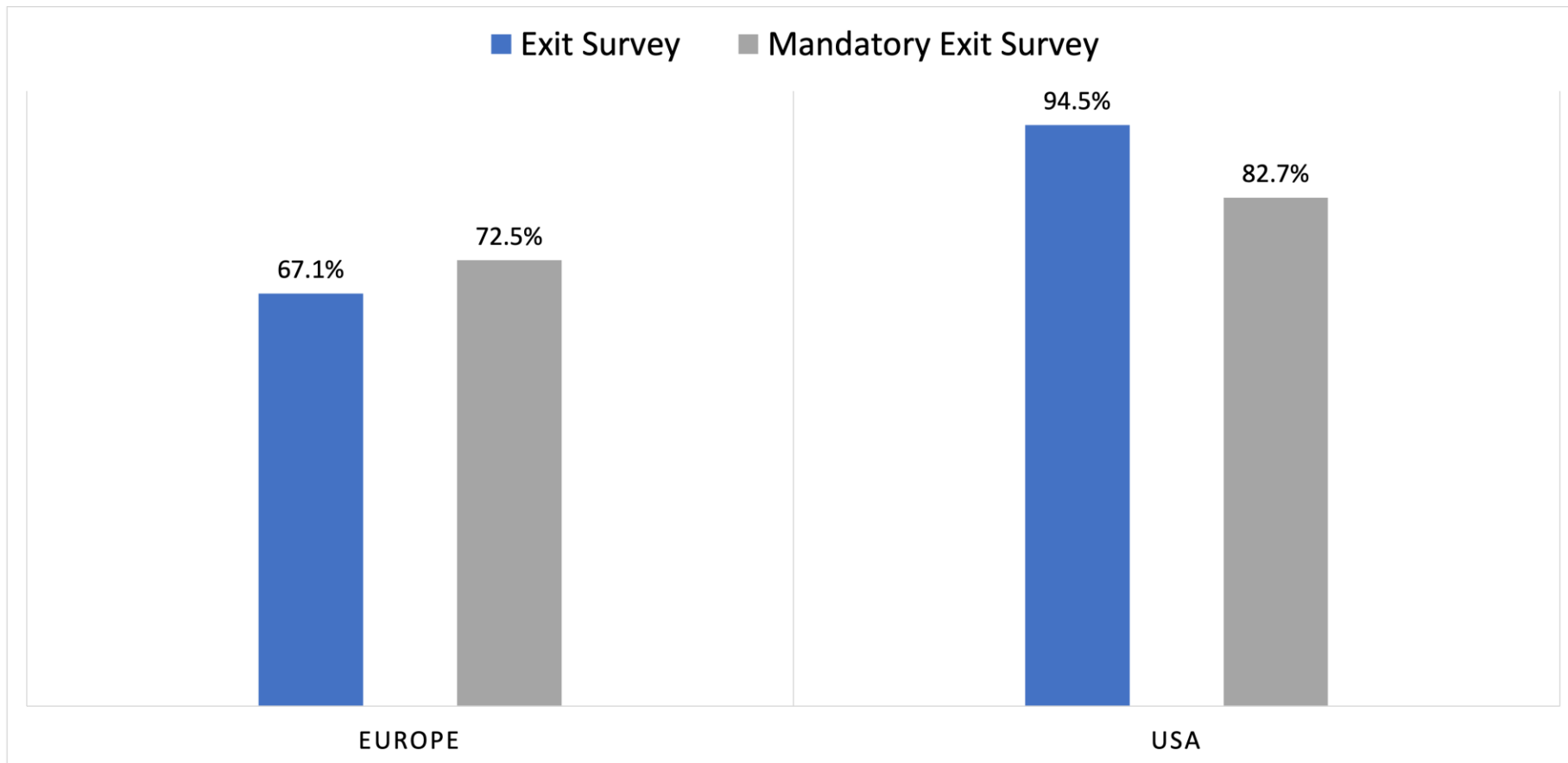


Image taken from PowerPoint

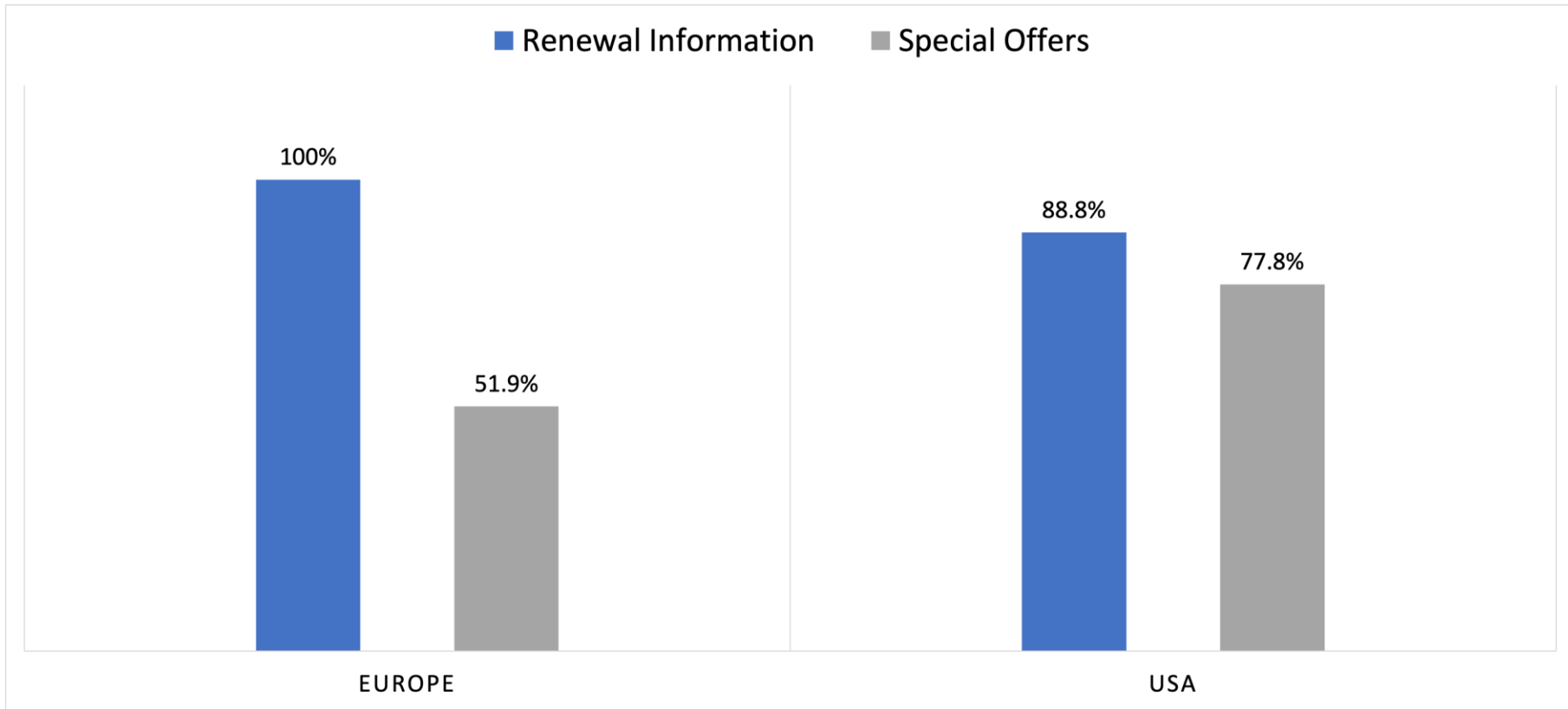
- 67/80 successful subscriptions
- 34 distinct news sites
- 5 personas
- 4 countries
- 63/67 cancelled online
- 13/80 subscriptions unsuccessful
- 14/34 included auto-renewal tick box
- 3/34 sites included an auto-renew button
- 4 dark patterns found
- Total cost: \$444.90 (€412.90)



Comparing Clicks to Subscribe & Cancel Across The Different Countries



Exit Surveys Encountered (Averaged) on Cancelling Subscriptions Europe versus USA



Europe Versus USA Subscription & Cancellation Parameter Observations

Dark Patterns Found

Are you sure you want to leave us?

If you cancel now, your subscription will expire on February 14, 2023 . Please note that after cancellation you will no longer be able to access the articles.

If you really want to cancel, please take a moment and tell us the reason for your cancellation below. This will help us to develop our products. Because its constant improvement is important to us, so that we can always provide you with the best possible experience.

- Price/Performance - For me, the price is not in relation to the performance
- Editorial reasons - The content does not meet my expectations
- Ease of use/technical reasons - I don't like the user-friendliness/usability or it doesn't work
- No subscription wanted - I was only interested in a specific item and didn't want to subscribe
- Personal reasons - moving, I don't have the time to use the subscription sufficiently, etc.
- Other provider - I prefer to find out more about local news from Düsseldorf and the region
- Health reasons - I cannot read the subscription for health reasons (e.g. poor eyesight, deafness)

cancel subscription

Return

My subscriptions

> Subscription #: 519375, RP+ Weekly Deal

cancel subscription

Manage Subscription

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AKTIV

ABGELAUFEN

Full Access

Abonnement-Verlängerung am 17.02.2023 Visa *1348

Sie können Ihre Mitgliedschaft zum Ende der Laufzeit mit einer Kündigungsfrist von sieben Tagen beenden. **Jetzt kündigen**

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Which best describes your job responsibility?: Please select your responsibility

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Which best describes your job responsibility?

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Please select your responsibility

What's your job position?

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as a mistake.

Sanjar,

ed to end your WELTplus subscription - which is a mistake. And

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Lufthansa

*Ausgewählte Flüge bei Buchung auf lufthansa.com, begrenztes Sitzplatzangebot.

SZ Rätsel Quartett Vier Bilder, eine Gemeinsamkeit – wie schnell kommen Sie zur Lösung?  [Rätsel lösen](#)

SZ **Plus** cybersecurity

When hackers paralyze everything



In Conclusion

- There are complex and ethical concerns surrounding online subscription and cancellation processes.
- Cancelling online was possible for the majority of subscriptions but not necessarily easy.
- European sites provide more cancellation info than the US.
- US sites feature more exit surveys and retention offers.
- Improvements in user experience could involve clearer subscription choices, auto-renewal reminders, and simplified cancellation procedures.
- A balance between high-level principles and specific regulations is essential to address the varied and intricate nature of cancellation flows.



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Ashley Sheil

Cybersecurity Researcher



Cancellation videos:

<https://github.com/roach-motel/chi-24>

Ashley also did study of:

- Security of partial PIN numbers:
“Guessing PINs, One Partial Pin at a Time”
- cookie banners on Irish Websites:
“Fianán, Cuacha: Irish Cookie Banners”
- ashley.sheil@mtu.ie

If you want to get me: David.Malone@mu.ie



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References



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- [1] <https://copyright.psu.edu/copyright-basics/fair-use/>
- [2] <https://www.legislation.gov.uk/ukpga/1988/48/part/I/chapter/III>
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- [5] Mathur, Arunesh, et al. "Dark patterns at scale: Findings from a crawl of 11K shopping websites." *Proceedings of the ACM on human-computer interaction* 3.CSCW (2019): 1-32.
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