Picking up the (digital) pieces

Asset identification after a death in the family

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Survey.... (Show of hands)

- How many Lawyers? Tax People (CPAs, Eas)?
- How many of you have crypto currency of some sort?
- How many have a wallet? Software? Hardware?
- How many of you have received phishing emails trying to get your wallet credentials?

About me: I've been an expert in more than 50 cases

- Crimes leave traces on cell phones, hard drives, and network activity logs
- Location data, activity data, web search activity, communications
- "Ring" doorbells and other surveillance video
- Water meters. Pacemakers. Your car's driving history! You name it...
- And, specifically, financial transactions.
- When someone dies unexpectedly, the family often has questions that deserve answers

Some case studies: Ed, 73 year old successful entrepreneur, had a sudden heart attack

- Big house in Hampstead, NW3, pied a terre in Paris, investment real estate in NYC....
- Two adult children, successfully launched
- longtime partner (mother of the 2 adult children) and younger "girlfriend" of 10 years duration.
- Philanthropist, founder of a giving circle, had donated or pledged
 ~80% of his assets already
- Residual estate was well planned, but there were some loose ends....
- Family asked me to help tie them up. (Did he have crypto currency?)

The girlfriend (GF) and a rich life complicated things (a bit)

- The partner and children did not know what arrangements had been made for the GF.
- Ed bought a flat for her in London. (Turns out it was in her name.)
- Ed and GF were the only users of the Paris flat.
- They had a dozen prepaid series tickets for cultural events in London, Symphony, Opera, NT, theatre tickets. (There was a tussle about those)
- Ed also had millions of airline miles on multiple carriers, and millions of Amex points from a lifetime of international business class travel.

(I organized the digital estate for the family.)

Michael, polymath (computer scientist, pianist, ex-professor, explorer, entrepreneur)

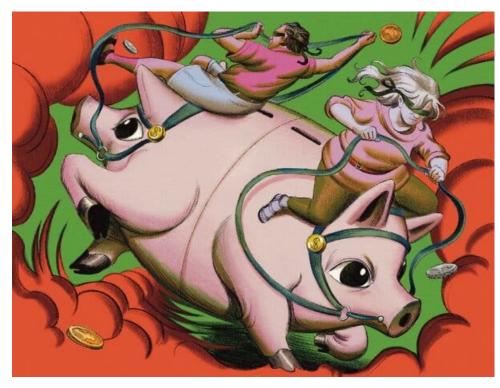
- Colon cancer at 55, late stage; Covid interfered with his treatment.
- Wife and 3 year old son
- Very well-organized estate he liquidated, consolidated, conveyed during his last months of life
- ... but a lot of his intellectual property was on computers, personal and servers at MIT Media Lab
- He also had a business (a conference in suspension during Covid)
- I helped organize his literary, scientific, artistic works, and his music library
- Frequent flier miles (up the wazoo)
- Notification/coordination of a thousand friends for a festschrift/memorial

Gary, 62 year old married political fundraiser

- Dies of heart disease
- He took care of the family finances (for last 20 years)
- Grieving wife discovers he has (somehow) looted her retirement accounts over many years
- He was not as well employed nor paid as she believed (All hat, no cattle?)
- He may have used the funds just for their joint living expenses
- ... or he may have spent the money on "other things"
- ... or he may have squirrelled away some of it.... (where?)
- (I'll sort this out, once I get the phone and laptop)

Do You Know How Much Your Spouse Makes? Some Couples Are Clueless.

Many couples are surprisingly unaware about key aspects of each other's finances — and that can hurt them. Here's how to get on the same page.



NY Times, Diane Harris March 2, 2025

Lawyer for Cryptocurrency Exchange died intestate

- Divorced (his brother and ex-wife do not get along)
- Unclear what happened to his digital devices
- Because he worked for a cryptocurrency exchange, he certainly had an account with them.
- Because he was an employee, the estate administrator asked the former employer's GC for help (and they were helpful)
- Was there a hardware wallet?
- His account was identified. But were there any large transfers in or out? (The administrator was surprisingly uncurious.)

Wallets, exchange accounts, hardware wallets

- You can/should look at the history of his bitcoin transactions and get a hint about any transfers to and from identified Central Exchange accounts
- Because of AML and KYC requirements, (noncriminal) exchanges have compliance requirements

In such cases...

- Of course, you would ordinarily expect to look in the safe deposit box and at postal and paper records...
- Arguably the only (or best) way to establish facts and identify digital assets Is to take over the email account(s) of the deceased
- And their computers
- And their phone and other devices (and, if necessary, the device backups)

The phone is typically a second factor for logging into all assets and credit accounts, required for getting a good picture of current status, and preserving access...

The email contains reminders of available periodic statements and acknowledgements of transactions for all asset accounts. Even the ones unknown to spouses (offshore accounts, alternative investments like cryptocurrency and domain names, assets accumulated prior to the current relationship, assets acquired with no explicit plan to dispose, NFTs, Artwork, rental statements for safe deposit boxes and storage lockers).

Keep in mind that after some period of inactivity (as little as 12 months) providers will delete accounts, and domain name registrations could expire, so time can be of the essence...

Many other items you may think of as "property" may only be licensed and expire at death under the Terms of Service.

More generally, examples of digital assets:

- Text messages and email (containing transaction records and business records)
- Calendars and contact lists
- Cloud storage (Box, Dropbox, iCloud, OneDrive, etc.)
- Blogs, Social Media accounts and Facebook channels (of Content Producers)
- Online purchasing accounts (Amazon, Paypal, Ebay)
- Music and Video sharing services
- Licensed ebooks (Kindle books, e.g.), Newspaper/magazine subscriptions
- Airline miles (and credit card points)
- Medical records (containing PHI)
- Sports gambling accounts
- Online family trees, parental records

"The average person under 70 has more than 160 digital accounts" – self-serving study by a vendor in 2020

What happens if you don't "follow the email"?

- Assets might get lost due to simple nonrecognition
- Bills might go unpaid and assets disappear (internet domains, in particular, will be offered at auction by the registrar)

Domain names have surprising value:

Cars.com sold for >\$800m

Lasvegas.com sold for \$90m

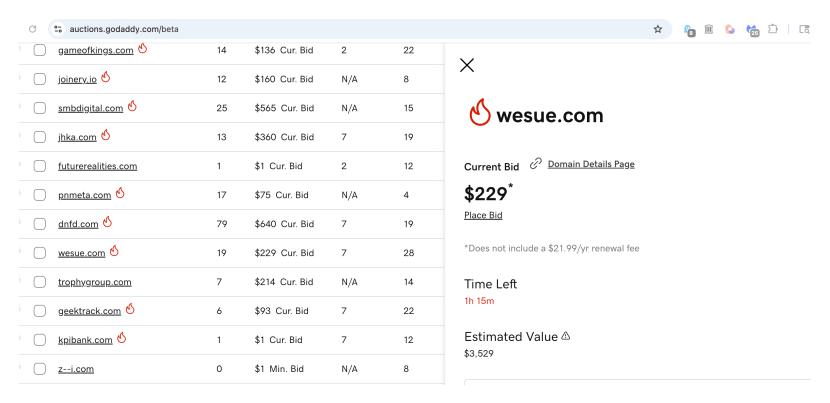
360.Com sold for \$17m. (bought by qihoo360)

Ai.com sold for \$11m

114.Com sold for \$2.1m (in 2013)

88888.com sold for \$245k (in 2013)

Wesue.com just sold at auctions.godaddy.com (for \$809)



Crypto currency

- Is protected by public key cryptography
- A private key (protected by a passphrase) and a public key, used to verify signed transactions are the heart of the matter with the private key one can assert ownership of the asset and transact.
- The asset and any transactions involving it are recorded on a blockchain, a decentralized mechanism for widely and irrevocably publishing each transaction.
- Transactions are IRREVOCABLE (Including transactions in error!)
- There is a lot of machinery to prevent coin forgery and double spending.
- (Mining crypto currency from scratch requires computational work.)

Some special characteristics of cryptocurrency

- Decentralized (no central governing authority)
- No way to block incoming funds (exchanges can only report and prevent cashing out and transfers)
- Held pseudonymously

Crypto currency in estates

- Inaccessibility (if private keys are lost or not securely shared)
- Decentralization (No central authority or help desk to call, aside from exchanges)
- Lack of Beneficiary support (no TOD or POD)
- Unless held in a trust, assets go through probate
- Market volatility while estate is being settled
- Probate Court record could leak secrets
- Cryptocurrency is property (with associated valuation and capital gains treatment)

Clients should plan ahead and prepare an inventory

- Names of coins and their locations (wallets or exchanges)
- Exchange credentials (logins and passwords), wallet addresses,
 Private keys or seed phrases
- Acquisition date and cost basis (for taxation purposes)
- Do not put this in the will, as that becomes public record. (A safe deposit box is an excellent place to put this kind of info.)

(Fiduciaries now have an obligation to consider digital assets in financial and estate planning.)

Digital Inheritance Services manage digital estates

- Financial accounts (including Wallet backups)
- Online businesses (domain names, web sites/access, network allocations)
- Media (photos/videos/music/documents) often in cloud-based storage

Electronic communication is special:

- Email account access (needs to be explicitly provided for)
- Social Media accounts

Credentials are stored with the custodian in encrypted files ("vaults")

- You can appoint specific beneficiaries to inherit specific digital assets
- You can ask for some assets to be deleted or memorialized
- Proof of liveness stops inheritance process from triggering
- Once triggered, beneficiaries are notified

Big Internet providers support inheritance (with nuances)

- Google: Inactive Account Manager
- Apple: Legacy Contact (designated after death iCloud access)
- Facebook: Legacy Contact (can memorialize a page but not access past messaging)

- Q. Do you want your fiduciary to have access to your past email?
- A. (If it is your spouse, maybe not including dating service subscriptions...)

The Revised Uniform Fiduciary Access to Digital Assets Act (RUFADAA)

- First attempt to recognize digital property rights that can be managed, conserved, and (in some cases) accessed by third parties (in much the same manner as real and tangible personal property)
- ULC [Uniform Law Commission] attempt to balance interests of fiduciaries, account owners and custodians
- First attempt in 2014, UFADAA had problems, and only Delaware adopted it after opposition by both ACLU and industry
- Second attempt: Now adopted by 49 states (and introduced in MA, in 2025, the only state left). Arizona adopted it in 2016 as SB1413.

Some features of RUFADAA

- Fiduciary has access to tangible property, including what's on devices
- Personal representative may be able to request disclosure of digital assets through the court

Cryptocurrency storage

- Often can be in an account on the books of an exchange (intermixed with their other crypto, just as in a bank).
- But if you want to store it yourself, you can do that in a software or hardware "wallet". (There are good reasons to do this: more than \$2.17B was stolen from centralized exchanges in 1H2025, more than in 2024)
- A software wallet is an encrypted file (containing, among other things, your private key) and an app to manage it.
- Or a small device, that might resemble a USB thumb drive. When unlocked, it can be used to sign transactions without revealing the private key.
- Private keys can also be protected by splitting them into pieces.

What does a private key look like?

- It's just a 256 bit number generated randomly! Usually represented as a hexadecimal value.
- And the public key is a 256 bit number that proves your possession of the private key. (look for "elliptic curve cryptography" if you want the details of how these two keys are connected...)
- A bitcoin Address is a human-friendly (shorter) representation of a public key (containing a hash value and a checksum) and used to send/receive BTC, for example:

3Beer3irc1vgs76ENA4coqsEQpGZeM5CTd

(the checksum part prevents a simple typo from causing permanent loss)

More friendly/useful representations of a private key

Wallet Import format – used to move private keys between wallets
(A cleartext (unencrypted) version of the private key gives complete access to the assets!)
 Starts with K, L or 5 – you may find these in the contacts lists, phone books, or files of a decedent...
 e.g.

```
address = L5EZftvrYaSudiozVRzTqLcHLNDoVn7H5HSfM9BAN6tMJX8oTWz6

base58decode(address) = 80ef235aacf90d9f4aadd8c92e4b2562e1d9eb97f0df9ba3b508258739cb013db20166557e53
--|------|----|
t t t t
version byte private key compression byte checksum
1 byte 32 bytes 1 byte (optional) 4 bytes

Warning: Do not use this private key. This is just an example. You will lose your coins if you use it.
```

For more info: https://learnmeabitcoin.com/technical/keys/

Backup representations of a private key

- Encrypted file (with a strong password) on removeable media or a cloud service
- Hardware wallet can have a copy, backups, or split backups
- "Seed phrase" 12 or 24 random-seeming words in order (from a list of 2k words, "abandon" to "zoo") that can be used to reconstruct a key and address. Only the first 4 letters of each word, or the position in the list is needed, so this can be more compact and less obvious. This can be recorded in paper, which burns, or metal.

Permanent loss of cryptocurrency due to custody problems

- Satoshi has about a million BTC, worth billions, and never been touched since 2010.
- Some exchanges and treasuries have banked a lot of BTC. Microstrategy had 639k BTC as of 7/8/2025, average purchase price \$66k per BTC. You can bet they would be careful custodians.

70816 of their (on-chain) crypto wallet addresses were revealed on 5/28/25, representing 87.5% of their total BTC holdings.

Estimates are that about 25% of the BTC has been lost due to loss of the private key or wallet with no backups.

Business Email Compromise targeting transaction intermediaries is big business!

- So you need to be very careful how you convey the estate's crypto assets to not lose them in the process
- The best rule is to use a wallet which does not touch the Internet
- Best to use multicustody (for very large amounts, anyway)

Hardware Wallets

- Wallets with screens (Trezor, Ledger, Ellipal, Ngrave)
- Wallets that look like cards (Tangem, Cyperrock)

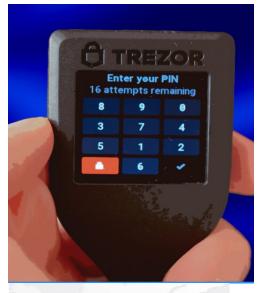
At least in theory, wallets can prevent your private key from leaking and can generate a new address for every transaction.

But in practice: Some of them require the key to be generated on a computer or phone (which risks exposure on already compromised devices).

And card wallets require an app to even see what transaction you're signing.

All of the hardware wallets have SOME way of backing up your private key.

Some hardware wallets







James Howells



Valuation In 2025

Law enforcement has a similar problem

- Seizing cryptocurrency assets linked to financial (usually) crimes
- Blockchain tracing of transactions ("follow the money") usually from victim to fraudster, despite attempts to obfuscate the path (plus it's often split among the gang)
- Temporary custody or seizure is followed by forfeiture
- This still doesn't identify the criminals (unless they spend some of the money or use an exchange to convert to fiat currency)

Exchanges and stablecoin providers

- Are financial institutions, and have KYC (Know Your Customer) requirements
- And KYA (Know Your Asset)!

Out of curiousity, I looked in a few textbooks re digital assets/cryptocurrency:

Not a word or even an index entry in

- Weisbord, Horton, Urice; Wills, Trusts and Estates, the Essentials,
 2018
- Quick Review of Wills, Trusts, and Estates -- Pennell, Jeffrey N_, Alan Newman, Jeffrey Pennell [6th ed, 2019] says only:

4. Fiduciary Access to Digital Assets [¶ 34]

Fiduciaries face difficulties in accessing digital property and electronic communications. These may have economic or sentimental value but they also pose privacy issues. Under the Revised Uniform Fiduciary Access to Digital Assets Act a fiduciary's power to manage property extends to digital property such as virtual currency, but electronic communications, such as email, text messages, and social media accounts, may not be accessed by the fiduciary unless the owner of those interests granted consent in a will, trust, power of attorney, or other record (such as an online tool provided by the custodian of those items).

 Wills, Trusts, and Estates, Robert H Sitkoff, Jesse Dukeminier – 11th ed, 2022 -- Wolters Kluwer Law (989pp)

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Digital wills, 194-204. See also Electronic wills

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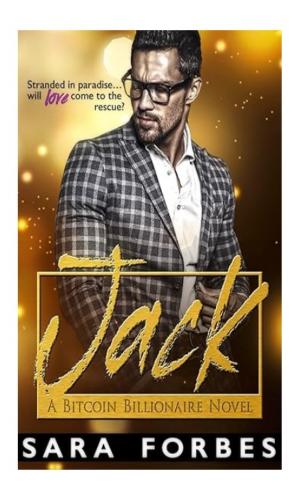
Describes RUFADAA...

Page 44:



"User name and password?"

Arnie Levin/The New Yorker Collection/The Cartoon Bank



Jack: A Movie Industry Billionaire Romance (Bitcoin Billionaires Book 1) Kindle Edition

(t)

by Sara Forbes (Author) Format: Kindle Edition

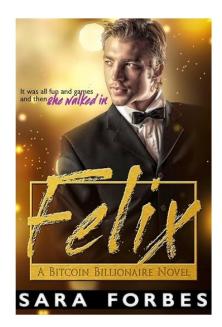
4.2 ★★★★☆ **(104)** 4.3 on Goodreads 44 ratings

Book 1 of 3: Bitcoin Billionaires

First in a steamy new billionaire romance series. It's hot, long, and full of surprises.

JACK

There's no room in my production schedule for slackers.



Read sample

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Felix: A Smooth Criminal Billionaire Romance (Bitcoin Billionaires Book 2) Kindle Edition

by Sara Forbes (Author) Format: Kindle Edition

4.2 ★★★★☆ (21)

Book 2 of 3: Bitcoin Billionaires

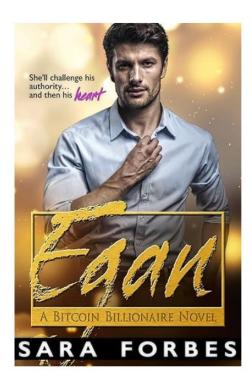
Felix Palmer, womanizer, gambler, sophisticated manabout-town... He's got the face of an angel but I know what he's hiding behind that sunny facade and it's far from innocent. He's the front man for a group of ruthless investors who have a stranglehold on the Bitcoin market and they don't care whom they hurt in their quest for dominance.

But I am going to stop them. Cara Cole, Private Investigator at your service. Carrying on my late father's business, I want to rid the planet of this scum.

Keeping tabs on Felix sends me to the casinos of Europe

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Egan: An Enemies To Lovers Billionaire Romance (Bitcoin Billionaires Book 3) Kindle Edition

ů

by Sara Forbes (Author) Format: Kindle Edition

4.2 ★★★★☆ ✓ (18)

Book 3 of 3: Bitcoin Billionaires

Falling in love is for other guys. The world has bigger plans for me.

Day and night, I'm in my office. Focused on big problems. But my sexy, new cleaning lady has roused a hot passion in me I can't ignore.

She's the first person I see on Monday mornings. She's the first person to challenge my authority... convincingly.

She's the *last* person I want to lie to. But she's curious. About me. About the secret I'm hiding on the third floor.

I'll aive her mv bodv. I'll aive her the world. I'll aive her

 ➤ Read more

References

- Rufadaa and planning in much more detail <u>https://www.financialplanningassociation.org/article/journal/APR18-estate-planning-digital-assets-understanding-revised-uniform-fiduciary-access-digital-0</u>
- In Q&A form (NJ-specific, but helpful)

https://pbnlaw.com/media-and-events/article/2017/09/what-new-jersey-residents-need-to-know-about-digital-assets-under-new-jerseys-new-digital-asset-act/?page=1994

Hardware wallet reviews and detailed evaluations:

https://patrickalphac.medium.com/top-9-cryptocurrency-hardware-wallets-for-2025-security-researcher-review-9fcb16d771e0

https://digitalcurrencytraders.com/top-three-crypto-hard-wallets-review-part-one-47c2487031b2

More references

On this week's Pig Butchering seizure (127271 BTC = \$15B)

https://www.justice.gov/opa/pr/chairman-prince-group-indicted-operating-cambodian-forced-labor-scam-compounds-engaged

https://www.chainalysis.com/blog/southeast-asia-crypto-scam-network-mining-pig-butchering-october-2025/

EDNY Docket No. 22-CR-458 (LDH)

https://www.chainalysis.com/blog/landscape-of-seizable-crypto-assets-2025/

Good reading about how seizures work:

https://www.blankrome.com/publications/understanding-cryptocurrency-forfeiture-guide-digital-asset-seizure