“Atomic Events” MVP White Paper

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This paper describes a new idea we have for a minimum viable product (MVP).

Overview

Event Cards are short and self-contained. They’re longer than a tweet, but shorter than a Wikipedia article. They describe — naturally — a particular event. Event Cards can also be picked up and embedded in other software — note taking apps, blogs, you name it — in a similar fashion to Tweets or YouTube videos. This makes for easy sharing.

Chains can be constructed by linking together Event Cards — thereby using the cards to craft a particular narrative by spatially laying them out and linking them.

Both Event Cards and Chains are user created, thereby sticking to our original mission of *crowdsourced sensemaking*.

The goal is to create a repository for primary and secondary source data formatted as small, easy to consume cards and have them shareable anywhere on the internet.

You can also think of this like Lego for news. Events Cards are building blocks which can stand on their own or can be used as part of a larger construction, potentially revealing novel insights.

Part of the inspiration for this MVP comes from wtfhappenedin1971.com. That website is a great example of taking a collection of standalone info and using it to make a larger point.

The Structure of an Event Card

As mentioned above, Event Cards are small, shareable cards that contain atomic information. Atomic means that the info is irreducible and self-contained. They are the fundamental building block of our MVP.

Event Cards can be used to depict self-contained events. These would consist of a brief bulleted list, meant to summarize the piece of news in about a minute (tentatively thinking of limiting to a 700 character limit).

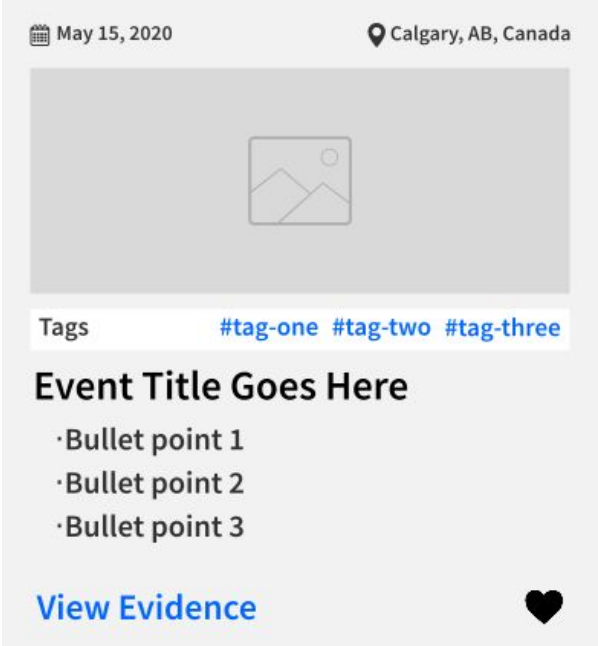
Event Cards introduce the possibility of templates (similar to Wikipedia or WolframAlpha) for common types of news stories. The templates would be optional. Here's a couple of possible templates off the tops of our heads:

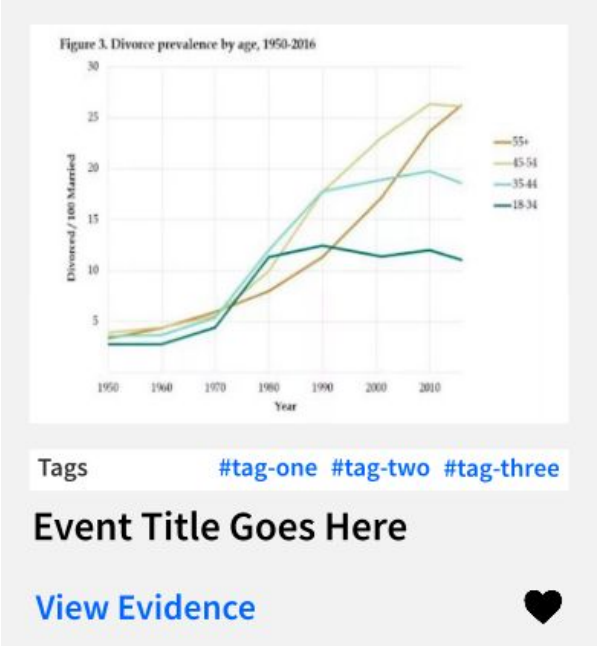
- Election win
    - Candidate: _____
    - % of Votes: _____
    - Turnout: _____

- Product announcement
    - Industry: _____
    - Manufacturer: _____
    - Ship date: _____

Event Cards can also be used to depict trends — basically becoming little cards with graphs on them. For the MVP, we're thinking of static graphs, although there's no reason why we couldn't have dynamic graphs that show evolution through time (like this one).

Here's how Event Cards look like:





Metadata

Each Event Card has metadata:

- Tags (one required)

  Work in a similar way to Steam tags, or Twitter hashtags. They're a way of categorizing Event Cards. For example you'd be able to search *#donald-trump* and see all Event Cards related to Donald Trump. You can search for multiple tags at once to find stories containing all of the searched-for tags. For example *#donald-trump* and *#impeachment*.

- Image (optional)
- Bullet points (optional)
- Title (required)
- Evidence (one source required)

  Each Event Card has to be backed up by one piece of evidence.

- Speculative? (required)

    Binary answer. Are we sure of this Event Card? How good is the source data?

- Date (optional)

    Can vary in specificity (May 14th, 2020 vs May 2020 vs Q2 2020)

- Location (optional)

    Can also vary in specificity (Calgary, AB, Canada vs AB, Canada)

Upvoting

The little hearts on the Event Cards work like a *like button*. *Like* any Event Cards you find interesting, and they'll show up in a separate feed of liked items for future reference. Not reinventing the wheel here. A like button would help users bookmark interesting Event Cards, and perhaps notify them when popular Chains have been made using the bookmarked Event Card.

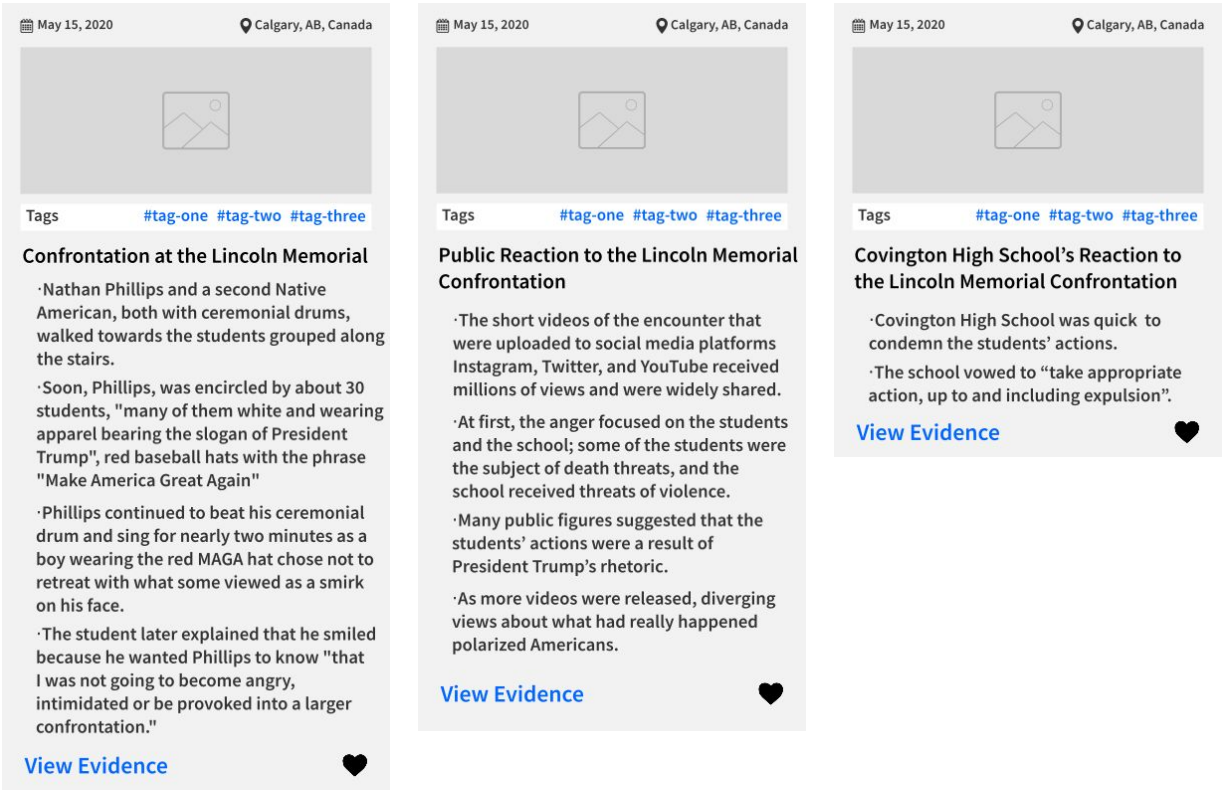
Editorial Board

To ensure the quality of Event Cards, there has to be some kind of vetting process or editorial board that enforces quality — deletes spam, double checks sources, merges cards talking about the same event, etc. This is something that would have to be done by members of the community. Their job would **not** be to censor information, but to ensure that each piece of information is presented as accurately as possible. It's also important that whether someone joins the editorial board is determined on merit alone. There should be nothing in the way of new members joining, given that they're dedicated.

We haven't thought through how this would work yet. **More work needed on this topic**. One possibility is something like a pull request in *git*. Another is to have a system like Wikipedia's.

Event Cards in Action

Here's the news story we keep coming back to in our prototyping: the January 2019 Lincoln Memorial confrontation — in the form of three Event Cards (the event as it happened, the media's reaction, Covington High School's reaction):



I'd like to encourage others to try coming up with Event Cards in this framework, and/or playing around with what metadata Event Cards should

require. The Event Card is at the heart of this whole system: once we get this right, everything else will stem from it.

Event Cards as Building Blocks (Chains)

Now that we've introduced self-contained Event Cards, we can begin to use them as building blocks for larger systems. This comes back to our analogy of Lego for news.

With these connections, users can craft narratives similar to wtfhappenedin1971.com (imagine that website being made entirely of Event Cards). Or, for example, let's say you want to track the statements that a public figure made over a certain period of time. Or show two contradictory accounts of what happened. You'd be able to do all that with a simple set of tools.

You can also upvote Chains as you do with Event Cards. The most interesting and/or insightful Chains constructed would rise to the top.

You can also use created Chains as a starting point for your own construction.

Chains are basically the way in which you can a) draw conclusions from and b) detect patterns in news stories. They're the language with which you'll be able to communicate patterns.

It should be made clear that the purpose of Chains is NOT to tell the truth, the whole truth and nothing but the truth. They're more like narratives — patterns that can be put together out of base Event Cards. As with any narrative, there's inevitably some degree of cherry picking involved. We think that's okay, **although we would love to hear others' input**.

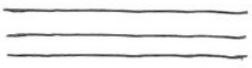
Something that hasn't been thought through yet: what kind of quality control should there be for Chains, if any? Should there be some kind of vetting process like with Event Cards?

The Suite of Tools for Chain Construction

Any Event Card can be linked to any other, rhizomatically or hierarchically. You get 4 types of links:

The Default link. Implies some ambiguous connection.

The Causal link. Implies causality.

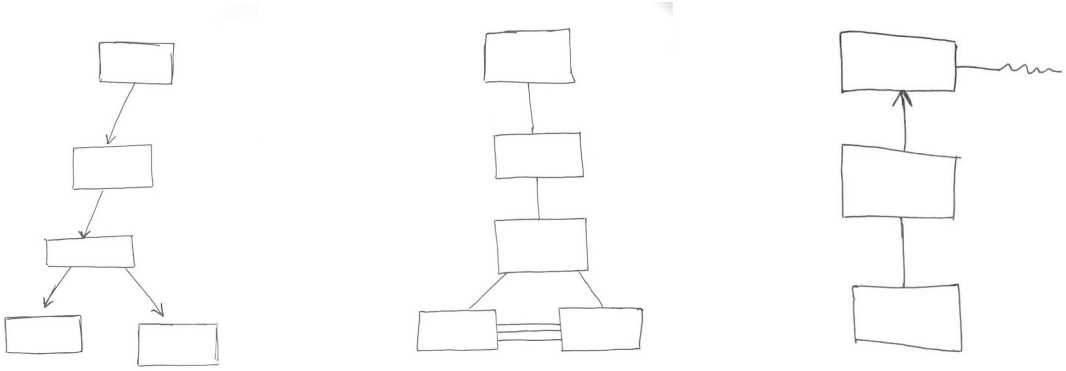


The Contradictory link. Implies contradiction.

The Missing link. Implies missing information. You'd be able to attach a note to the dangling end of it and elaborate on what you think is missing.

Abstract Examples of Chains

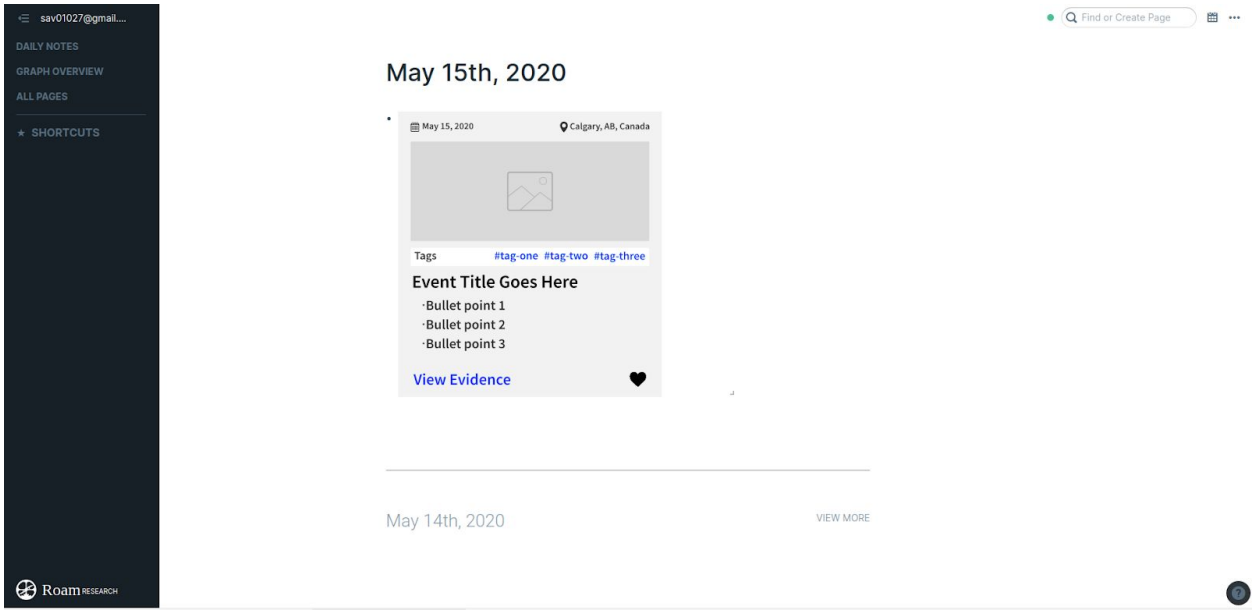
Here's how these Chains might look:



Embedding

This is a very crucial aspect of this MVP idea. The notion that you could take Event Cards and do something with them outside of the platform is important. Include Event Cards in an essay you're writing about politics. Add them to your Roam DB to gain access to more powerful tools. Share Event Cards with friends. Go nuts. Maybe you'd even be able to embed whole Chains.

Here's an example of an Event Card being embedded in Roam:



Other Considerations

Recovering Rootclaim's Functionality

Rootclaim is a powerful platform for making sense of complex events.

The way it works is: a question is asked, and hypotheses are provided. Evidence is collected, and each piece of evidence is weighed based on how reliable and significant it is. Using a Bayesian Tree ($P(H|E) = \frac{P(E|H) \bullet P(H)}{P(E)}$ where *H* is a hypothesis and *E* is evidence), they're able to determine the likelihood of each hypothesis being true. More details on their website.

Unfortunately, Rootclaim is no longer being actively worked on. However, you'd be able to recreate a similar system in something like Roam using our Event

Cards as the nodes representing evidence in your Bayesian Tree. Or eventually, in the Chain construction tool itself.

The Problem of Chunking

There are different levels of specificity — different sizes of chunks — that Event Cards can be depicted as (source):

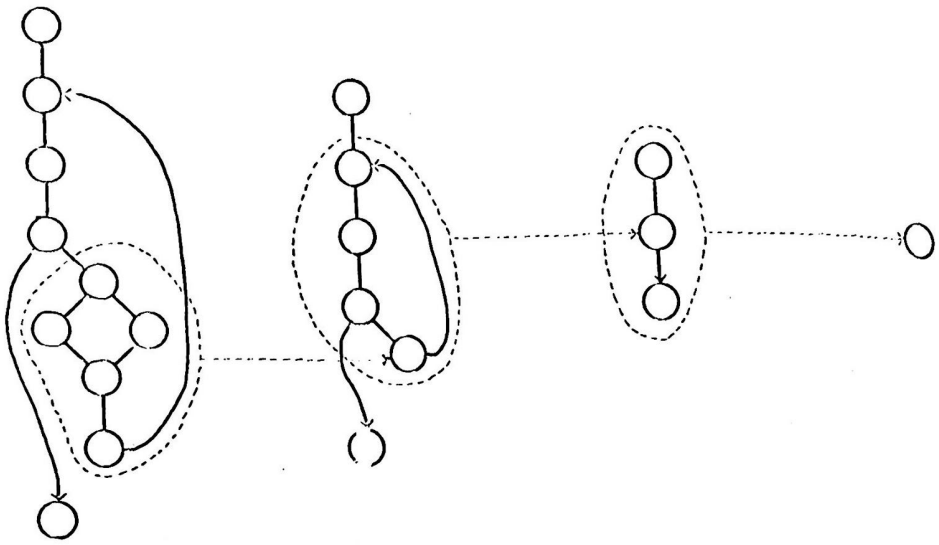


FIGURE 57. The idea of "chunking": a group of items is reperceived as a single "chunk". The chunk's boundary is a little like a cell membrane or a national border: it establishes a separate identity for the cluster within. According to context, one may wish to ignore the chunk's internal structure or to take it into account.

For example:

1. "The media depicted the event as *X*."
2. "CNN depicted the event as *X*."
3. "John Doe at CNN depicted the event as *X*."

Now imagine these are all Event Cards in our system. How would they be organized, if at all? Would #3 be a subcategory of #2, and #2 a subcategory of #1? The lazy solution to this is to not worry about it and just let users create Event Cards. With a good enough search feature, they'd be able to find the Event Card they're looking for. **However, there's probably a better approach to this**. Maybe we *should* be taking chunking more seriously...

Event Card Validity

Should there be validity weights assigned to Event Cards (instead of the binary *speculative* field in the metadata)? Also, if an Event Card is used in more and more Chains, does that somehow speak to the validity of said Event Card? In other words, if a lot of stuff was created with a building block, does that make the block more reliable?

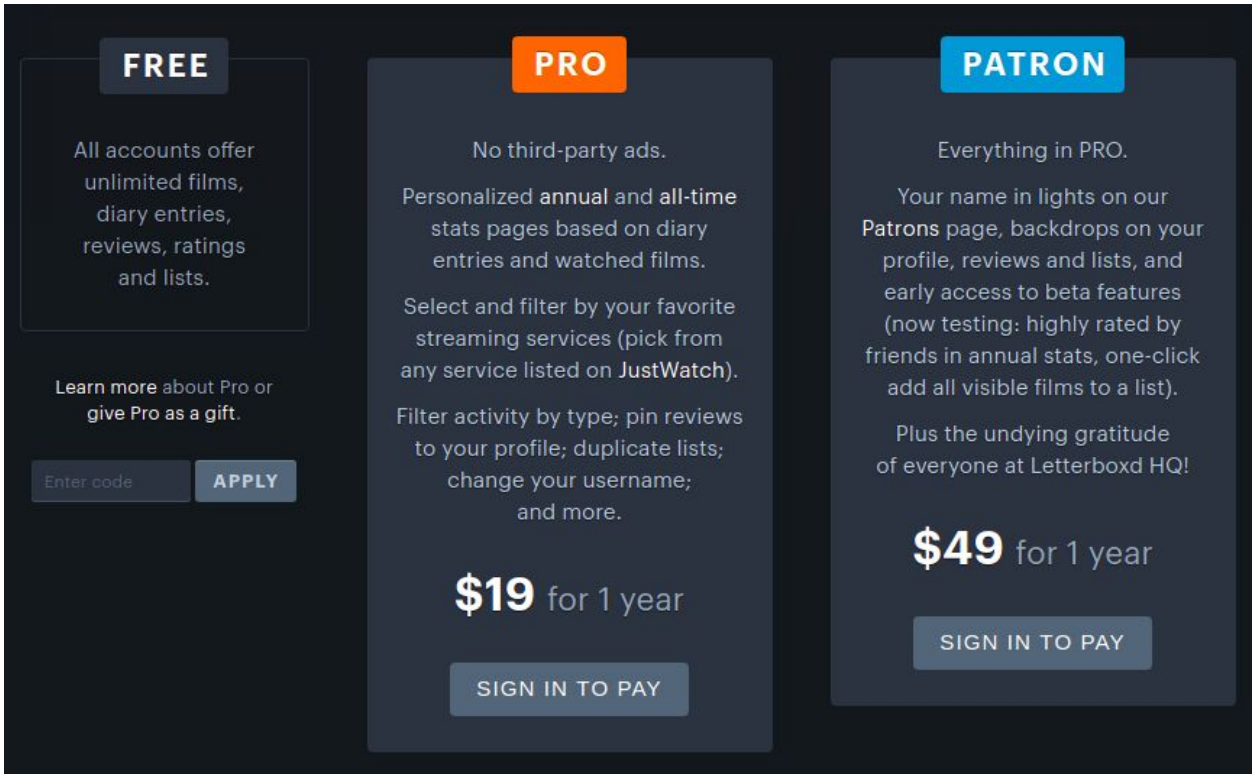
Trustworthy Sources

This is another underexplored area of this idea. What role should sources play in this MVP? Should you be able to follow sources you trust, and optionally filter for cards only backed by the sources you follow? What if specific Event Cards and Chains were OWNED by individuals / sources, and the integrity of the content would therefore rest on their shoulders?

Revenue Model

This is yet another underexplored area of this idea. However: we're big fans of Letterboxd here, and have noticed that the structure of their app is somewhat similar to what we're proposing here. The big difference is that they focus on

movies, not news and trends. One option might be to mimic their revenue model: neatly-placed ads for free accounts, and an ad-free premium account. Here are Letterboxd's account variants:



The Benefits of This MVP

- It has a solid value proposition and customer segment; it's a tool for an existing ecosystem of researchers, blog writers and note takers.
- It's something we'd actually use in our routine. So even if there isn't broad appeal it'd be a useful tool for us. There's your $n = 2$.
- It's simple — no complicated algorithms. This results in faster implementation time and fewer failure points.

- It’s mobile friendly — you’d be able to view and share Event Cards on a phone like you view Tweets.

Conclusion

Event Cards are small, shareable cards that contain atomic information. They are created by users, and the database of Event Cards will grow as more users contribute.

Event Cards can be picked up and embedded in other places around the web — note taking apps like Roam Research and personal blogs, for example.

Event Cards can also serve as the building blocks for larger constructions called Chains. Chains are created by linking together Event Cards using 4 different types of links. Chains are also user created. The most insightful ones will be promoted, shining a light on novel conclusions and unseen patterns.

If implemented properly, we believe that a system like this would help cut through the noise and improve our ability to make sense of the world — as individuals and as a collective.