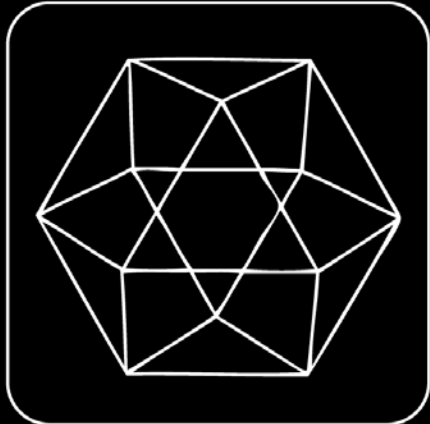




Your Infrastructure Will Kill You



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**We are defined by our
infrastructure. Why does it
keep breaking?**





- **Extraction of value**
- **Economic deficit**
- **Time-scale mismatch**
- **Scaling deficit**
- **Colonial deficit**
- **Environmental deficit**





How Things Fail



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- **Simple failures**
- **Chained failures**
- **Complexity**
- **Efficiency**
- **Optimality**
- **Acceleration**

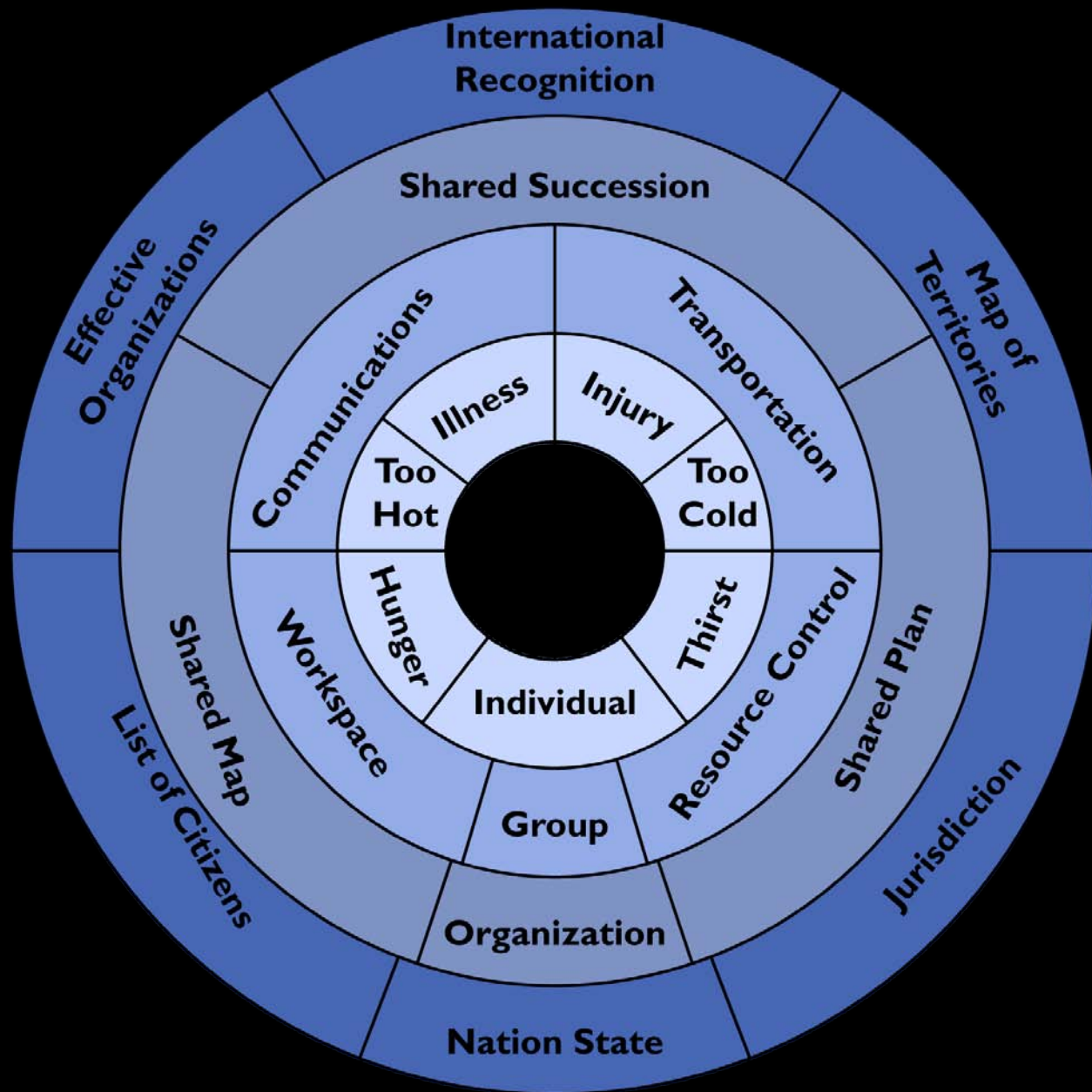




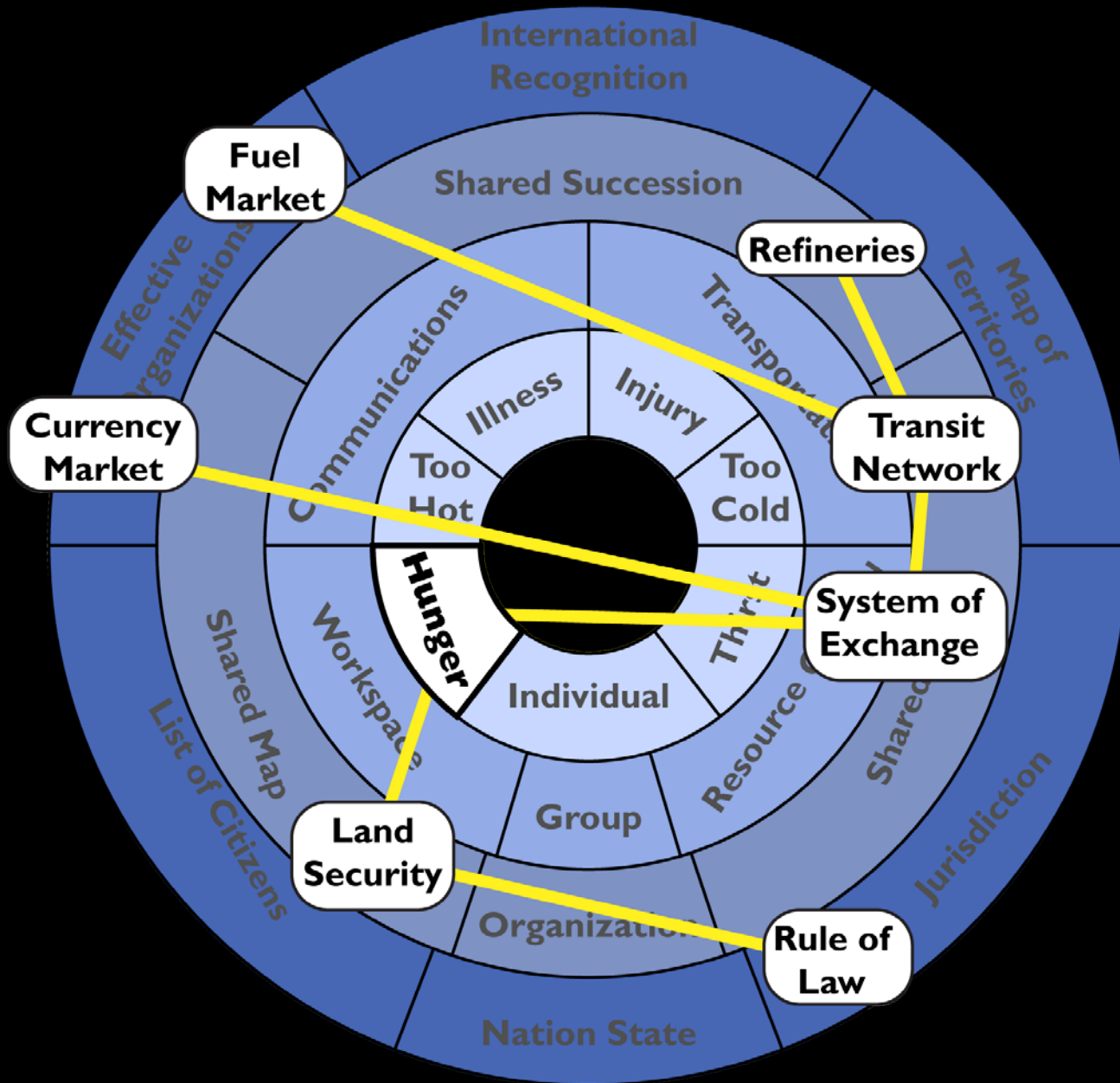
Six Ways To Die



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Integrated Needs Analysis



	individual	household	village / neighborhood	town / city / municipality	region	country	world	
injury	resilience gap			medical / police		army		
illness			toilets	sewer system	sewage plants			
thirst			water supply	water mains	water processing			
hunger				food supply chain	retailer logistics	bulk logistics	imports	intl markets
too cold			heating	local grid	power plants	national grid	fuel imports	intl markets
too hot			cooling				not shown	
transport					fuel supply	air/ports/harbors	ports / airports	
space					diesel generators		travel / embargos	
communications		electricity	cell towers, cables	local hubs	regional hubs	fiber lines	undersea cables	
resource control		sharing	administration	rule of law	civil	jurisdiction	satcom	
shared succession		SCIM:INAM for a typical developed world nation			rule of law	corporate	jurisdiction	
shared plan				cohesion				
shared map				consensus		objective facts ("legal facts")		
international recognition	consent of governed						legitimacy of state	
effective institutions	staff	space, transport, communications, resource control - succession, plan, map						
citizens list						identity files		
territory map	hexayurt@gmail.com			land registries		sovereign lands		
jurisdiction						legal processes		



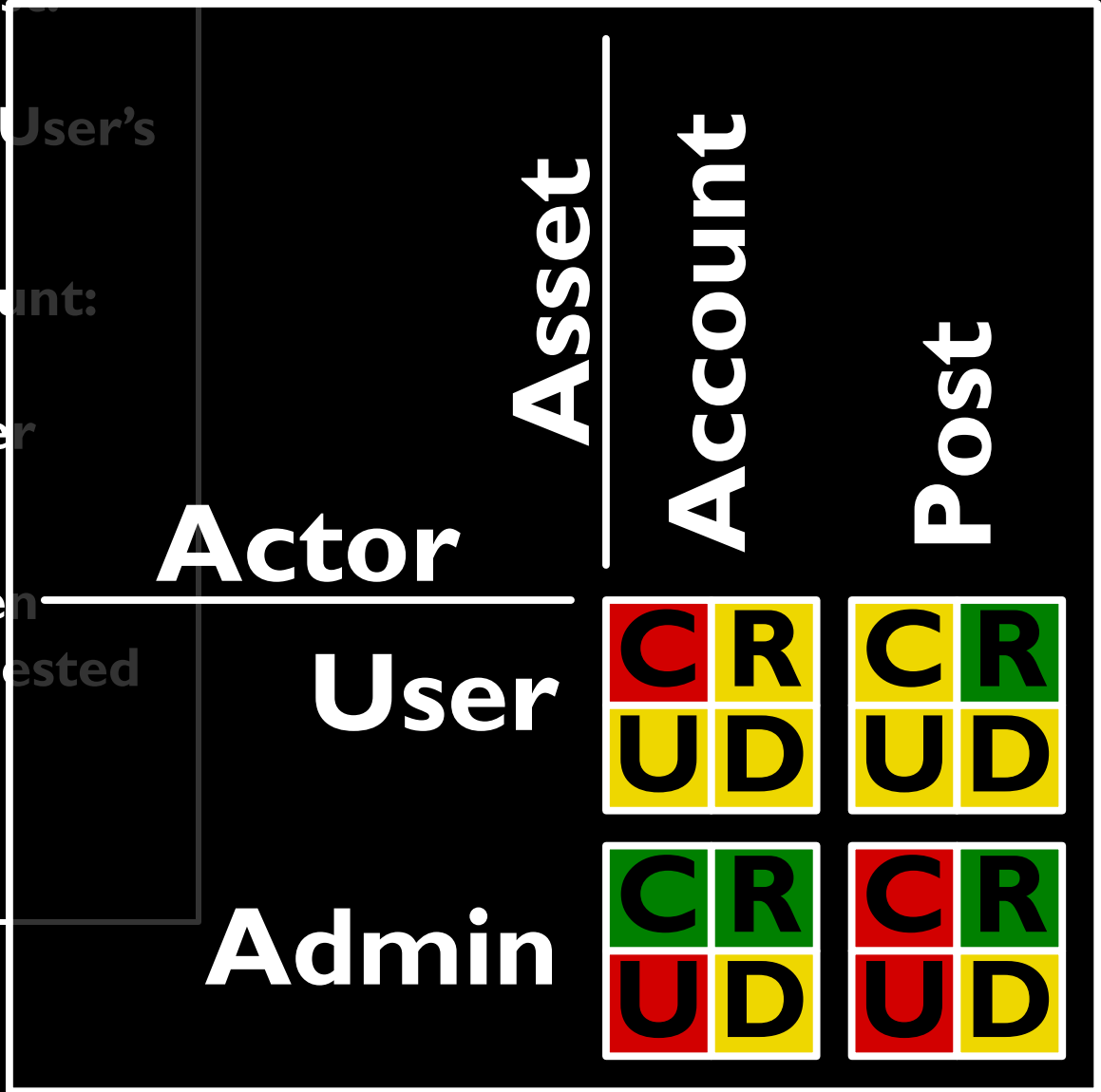
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How can we understand the systems which can kill us?



- **User can Create Post:**
when Post is connected to User's Account
- **User can Read Account:**
when account belongs to user
- **Admin can Delete Account:** when User has requested deletion.
- ...



- Anonymous can create Account
- Anonymous can update Account
- Anonymous can delete Account
- Anonymous can create Post
- Anonymous can update Post
- Anonymous can delete Post
- Anonymous cannot read Post
- User can create Account
- User can read other user's Account
- User can update other user's Account
- User can delete account without approval
- User can delete other user's Account
- User can update Account without logging
- User can delete Account without logging
- User cannot read Account
- User cannot update Account
- User cannot delete Account
- User can create Post on other user's Account
- User can create Post without logging
- User cannot create Post
- ...

When the system is in its *initial configuration*, the system shall not allow the *listed attackers* to take the *prohibited actions*. If the attacker tries, the system shall use the *intended response*.

If Anonymous attempts to *create an Account*, the system will respond by *thwarting the action*.

If a User attempts to *read other user's Account*, the system will respond by *detecting and alerting*.





1. User requests posting token from System with credentials
2. System validates User credentials against Data Store

1. [Error handling]
3. System sends posting token to User
4. User sends post to System with posting token
5. System validates posting token and stores post in User account
1. [Error handling]
6. System logs event and sends success response to User





HAZOP Analysis

4. **User sends post to System with posting token**
 1. **Someone NOT the User sends the post**
 2. **The User sends PART OF the posting token**
 3. **The User sends something AS WELL AS the posting token**
 4. **...**





**Why don't we already have
resilient infrastructure?**

Power.





**Fixing what's already
broken:**

**The humanitarian project
has failed.**



Hexayurts



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**Knowledge is the best
source of infrastructure and
relief.**





**Fixing what's not broken
yet.**





Maker culture grows up.



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Walmart, the DoD, and you.



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Questions?

<http://dymaxion.org/talks/27c3-YIWKY.pdf>

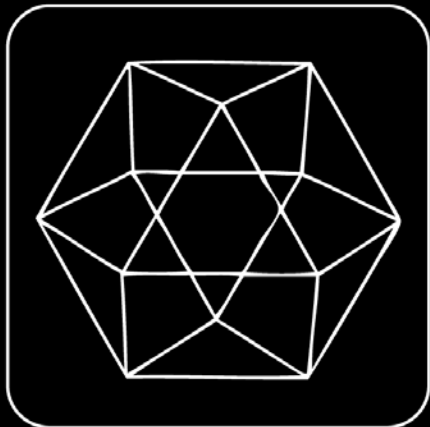
<http://octotrike.org>

<http://hexayurt.com>

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