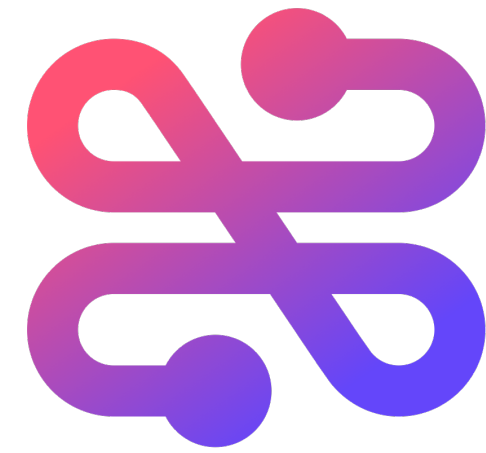


DECENTRALIZED WEB MEETUP



IPFS & FISSION LIVE

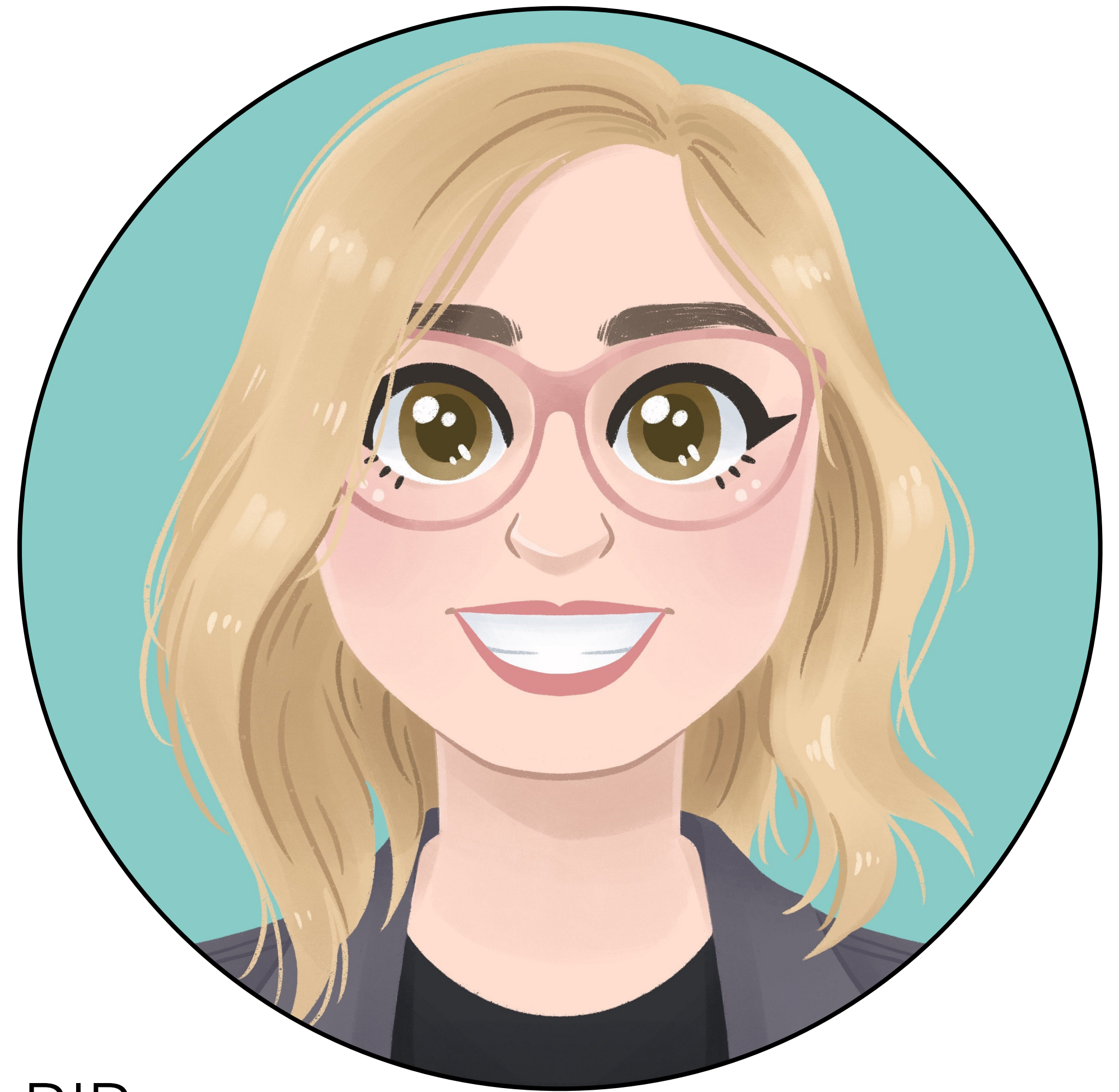
IPFS 101 & A BIT OF FISSION  
BROOKLYN ZELENKA, @expede



# IPFS 101 & A BIT OF FISSION

BROOKLYN ZELENKA, @expede

- Cofounder/CTO at Fission
  - <https://fission.codes>
- PLT & VMs
- Previously focused on Ethereum
  - EIPs 615, 902, 1066, 1444
  - ECIP 1050
- Currently spending a *lot* of time with IPFS & DIDs



COMMONS INFRASTRUCTURE

# COMMONS INFRASTRUCTURE

 A SUBSTRATE FOR EVERYONE 

COMMONS INFRASTRUCTURE  
OPEN SOURCE

Lots of people work on it, everybody benefits from it, and then people can build upon it (even in a revenue generating fashion)



*TED LEUNG (2005)*

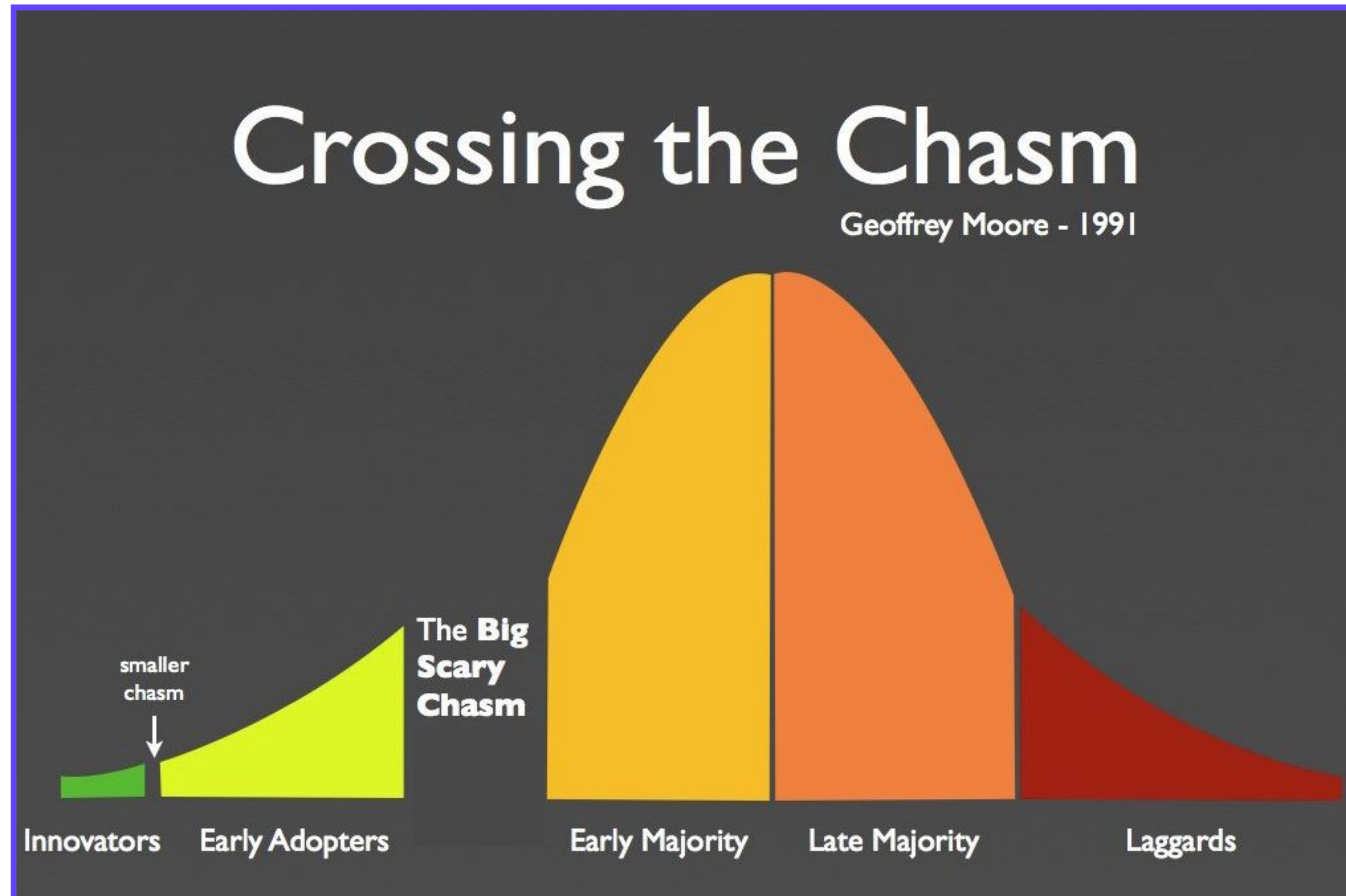
# COMMONS INFRASTRUCTURE OPEN NETWORKS

Lots of people work on it, everybody benefits from it, people can build upon it (even in a revenue generating fashion), and it's "owned" by everyone.

By participating — even with competitive goals — you are cooperating by serving the content and running compute of others.

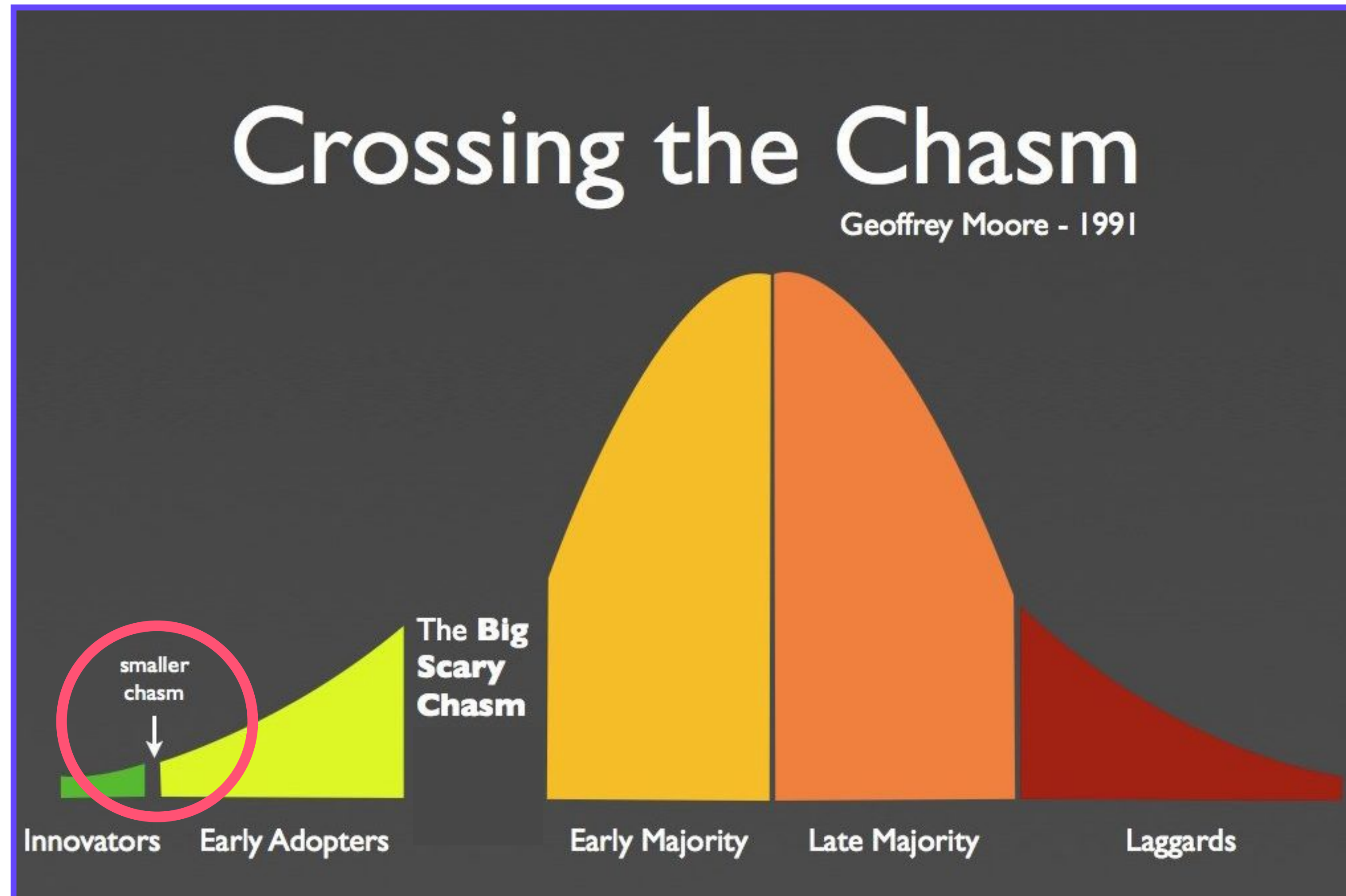


# COMMONS INFRASTRUCTURE WHY NOT MORE WIDESPREAD?





# COMMONS INFRASTRUCTURE WHY NOT MORE WIDESPREAD?



DIDS

DIDS

 HIGHLY AUTHENTIC 

DIDS

STANDARDIZATION

# DIDS STANDARDIZATION

- W3C
- Microsoft
- Government of British Columbia
- Based on public-key cryptography
- Truly “universal” UUIDs
- Agnostic about backing
- For users, devices, and more

FEBRUARY 12, 2018

## Decentralized digital identities and blockchain: The future as we see it

By Alex Simons, Vice President of Program Management, Microsoft Identity Division

### EXAMPLE 2: Minimal self-managed DID Document

```
{
  "@context": "https://w3id.org/did/v1",
  "id": "did:example:123456789abcdefghi",
  "publicKey": [{
    "id": "did:example:123456789abcdefghi#keys-1",
    "type": "RsaVerificationKey2018",
    "owner": "did:example:123456789abcdefghi",
    "publicKeyPem": "-----BEGIN PUBLIC KEY...END PUBLIC KEY-----\r\n"
  }],
  "authentication": [{
    // this key can be used to authenticate as DID ...9938
    "type": "RsaSignatureAuthentication2018",
    "publicKey": "did:example:123456789abcdefghi#keys-1"
  }],
  "service": [{
    "type": "ExampleService",
    "serviceEndpoint": "https://example.com/endpoint/8377464"
  }]
}
```

DIDS

CLAIMS

DIDS

CLAIMS

- Principle of least information
- “Can attest that this user is over 18”
- All claims signed with private key
- Age, credentials, country residency, job history, event attendance, ...

DIDS

WHAT ABOUT TRACKING, PRIVACY, RECOVERY



DIDS

WHAT ABOUT TRACKING, PRIVACY, RECOVERY

- Hierarchical deterministic wallets

DIDS

WHAT ABOUT TRACKING, PRIVACY, RECOVERY

- Hierarchical deterministic wallets
- Keychains
  - Generally on a blockchain
  - Some cases on DNS

DIDS

SELF-SOVEREIGN IDENTITY (SSI)

DIDS

SELF-SOVEREIGN IDENTITY (SSI)

- Generate your own ID!

DIDS

SELF-SOVEREIGN IDENTITY (SSI)

- Generate your own ID!
- As many as you like 🙋

DIDS

# SELF-SOVEREIGN IDENTITY (SSI)

- Generate your own ID!
- As many as you like 🙋
- Generally use commons infrastructure like a blockchain or DNS

WHAT FISSION IS UP TO

# WHAT FISSION IS UP TO

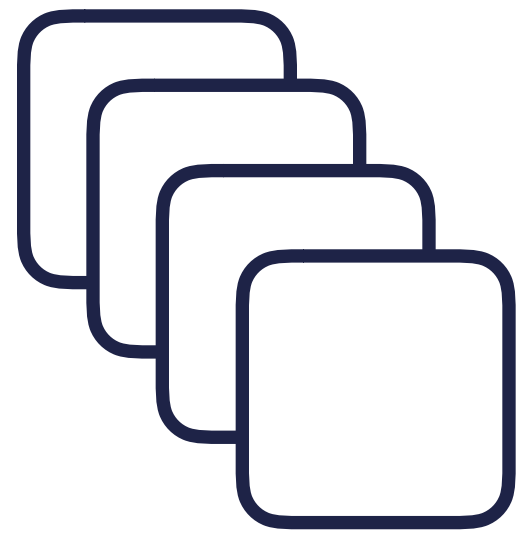
 MAKING LIFE EASIER FOR ALL DEVS ✨



MAKING LIFE EASIER FOR ALL DEVS  
PARADIGM WAVES

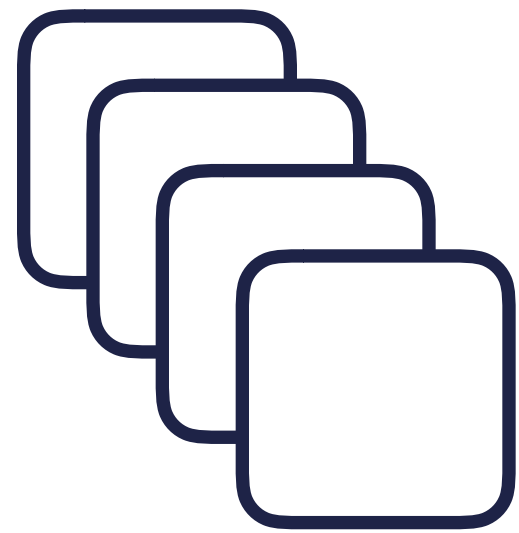
MAKING LIFE EASIER FOR ALL DEVS  
PARADIGM WAVES

CONTAINERS

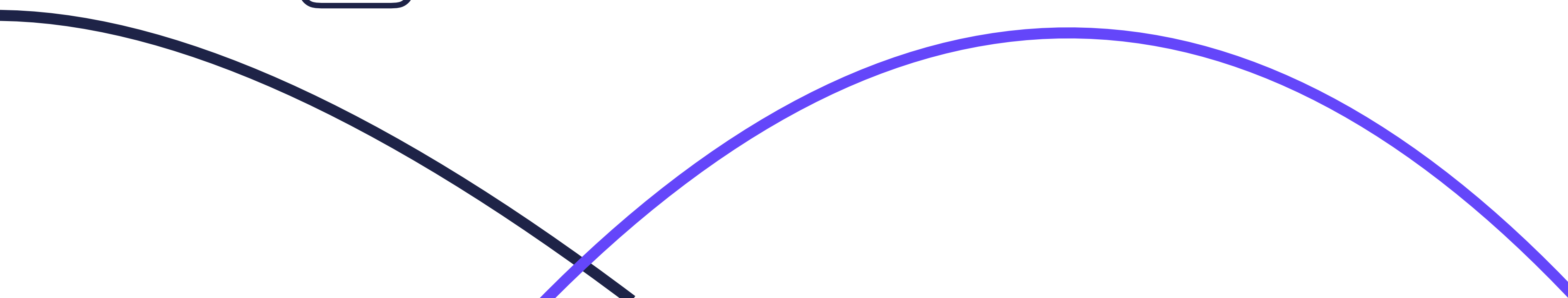
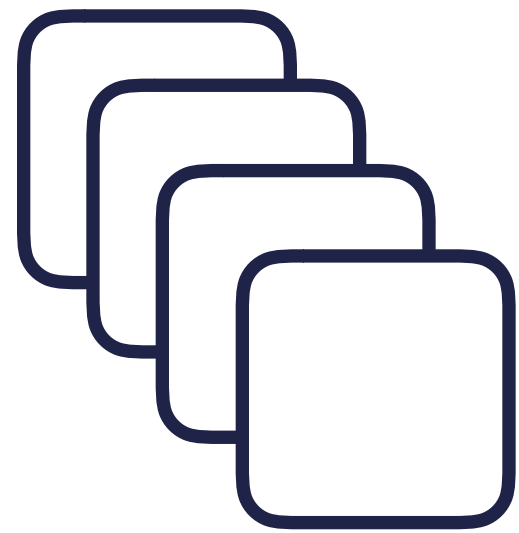


MAKING LIFE EASIER FOR ALL DEVS  
PARADIGM WAVES

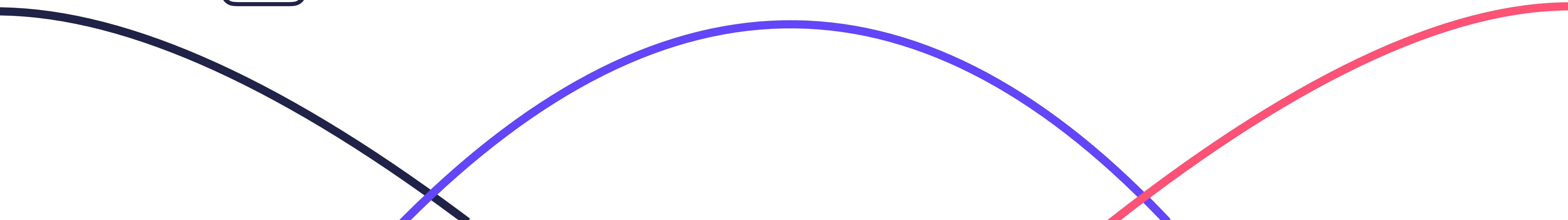
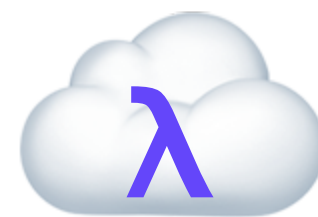
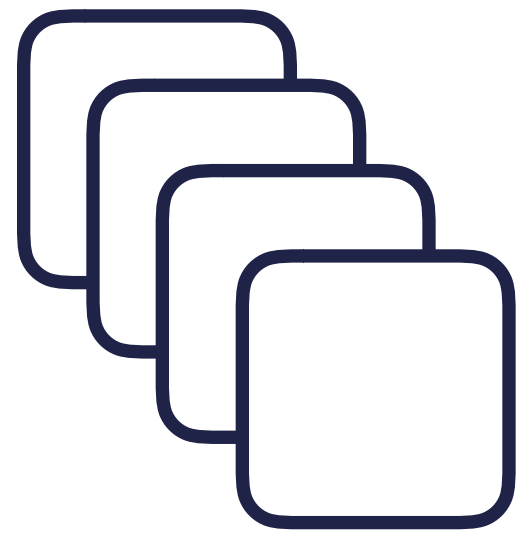
CONTAINERS



MAKING LIFE EASIER FOR ALL DEVS  
PARADIGM WAVES



MAKING LIFE EASIER FOR ALL DEVS  
PARADIGM WAVES



MAKING LIFE EASIER FOR ALL DEVS  
NATIVE SDK FOR THE WEB

MAKING LIFE EASIER FOR ALL DEVS  
NATIVE SDK FOR THE WEB



MAKING LIFE EASIER FOR ALL DEVS  
NATIVE SDK FOR THE WEB

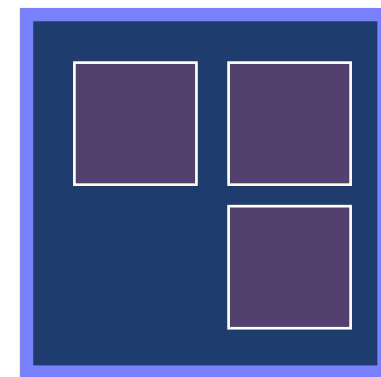




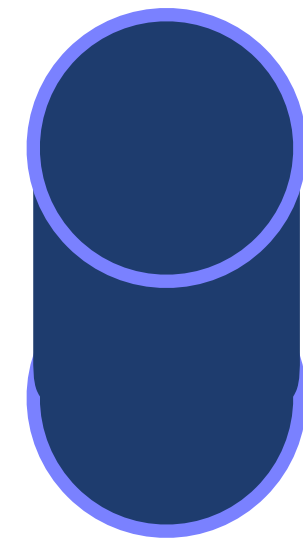
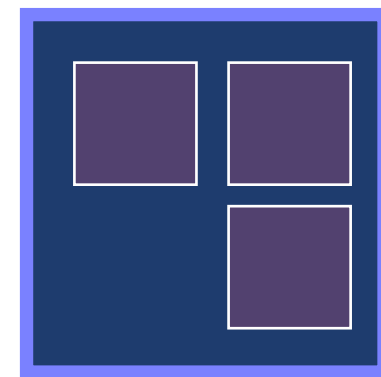
MAKING LIFE EASIER FOR ALL DEVS  
NATIVE SDK FOR THE WEB



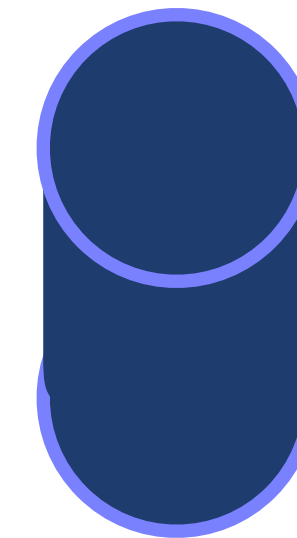
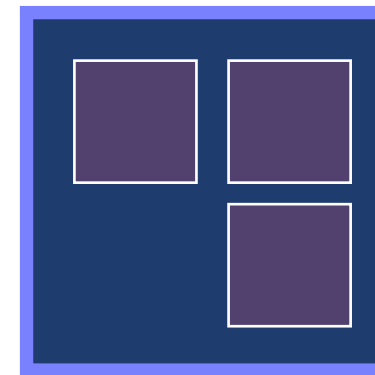
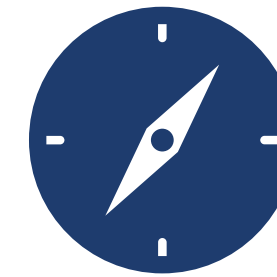
MAKING LIFE EASIER FOR ALL DEVS  
NATIVE SDK FOR THE WEB



MAKING LIFE EASIER FOR ALL DEVS  
NATIVE SDK FOR THE WEB

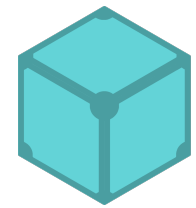


MAKING LIFE EASIER FOR ALL DEVS  
NATIVE SDK FOR THE WEB



MAKING LIFE EASIER FOR ALL DEVS  
THE NEXT WAVE OF PLATFORMS

MAKING LIFE EASIER FOR ALL DEVS  
THE NEXT WAVE OF PLATFORMS



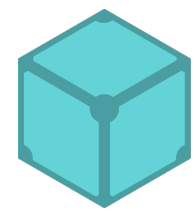
**Global  
Storage**

FILES 

DATABASE 

# MAKING LIFE EASIER FOR ALL DEVS

## THE NEXT WAVE OF PLATFORMS



**Global  
Storage**

FILES 

DATABASE 



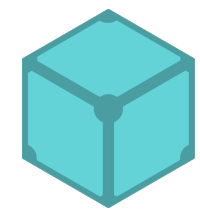
**Digital  
Scarcity**

IDENTITY 

CHECKPOINTS 

# MAKING LIFE EASIER FOR ALL DEVS

## THE NEXT WAVE OF PLATFORMS



**Global  
Storage**

FILES 

DATABASE 



**Digital  
Scarcity**

IDENTITY 

CHECKPOINTS 



**Portable  
Compute**

DISTRIBUTED COMPUTE 

SMART CONTRACTS 



MAKING LIFE EASIER FOR ALL DEVS  
LOWER BARRIERS

MAKING LIFE EASIER FOR ALL DEVS  
LOWER BARRIERS

**High Touch**

**Invisible**

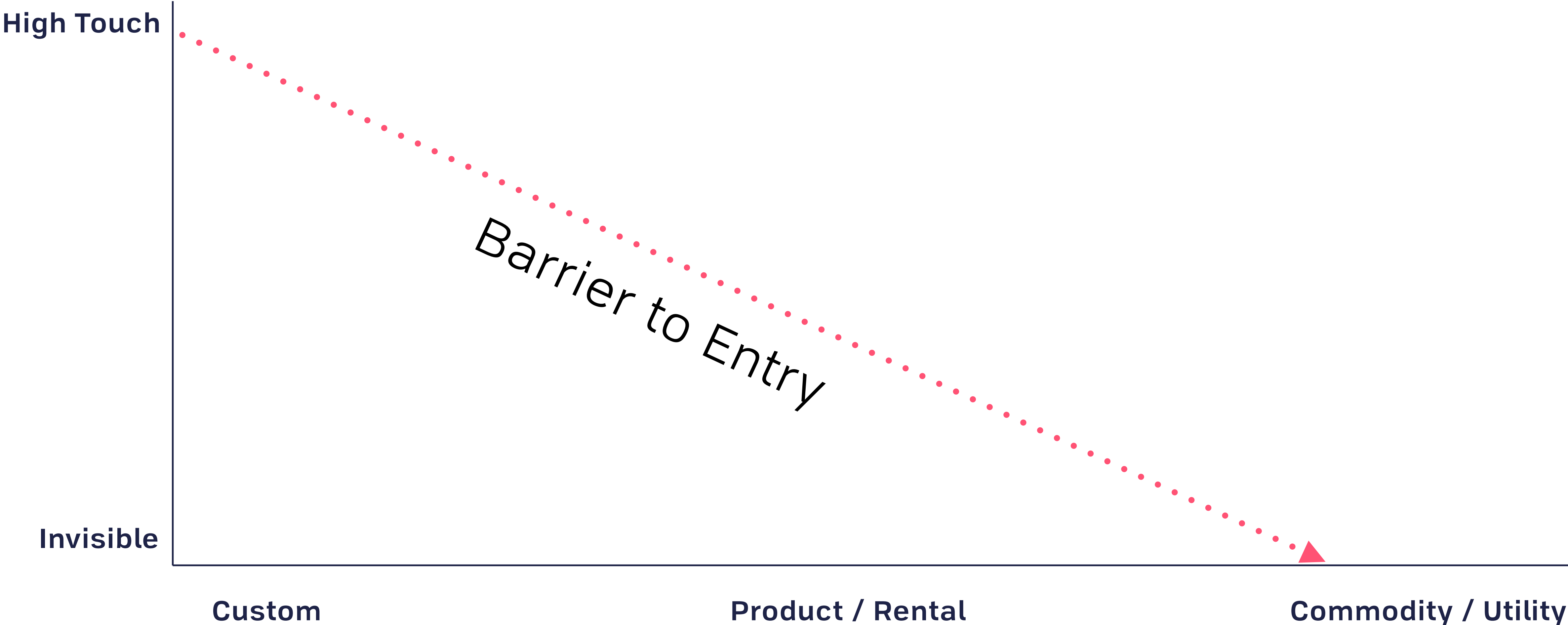
**Custom**

**Product / Rental**

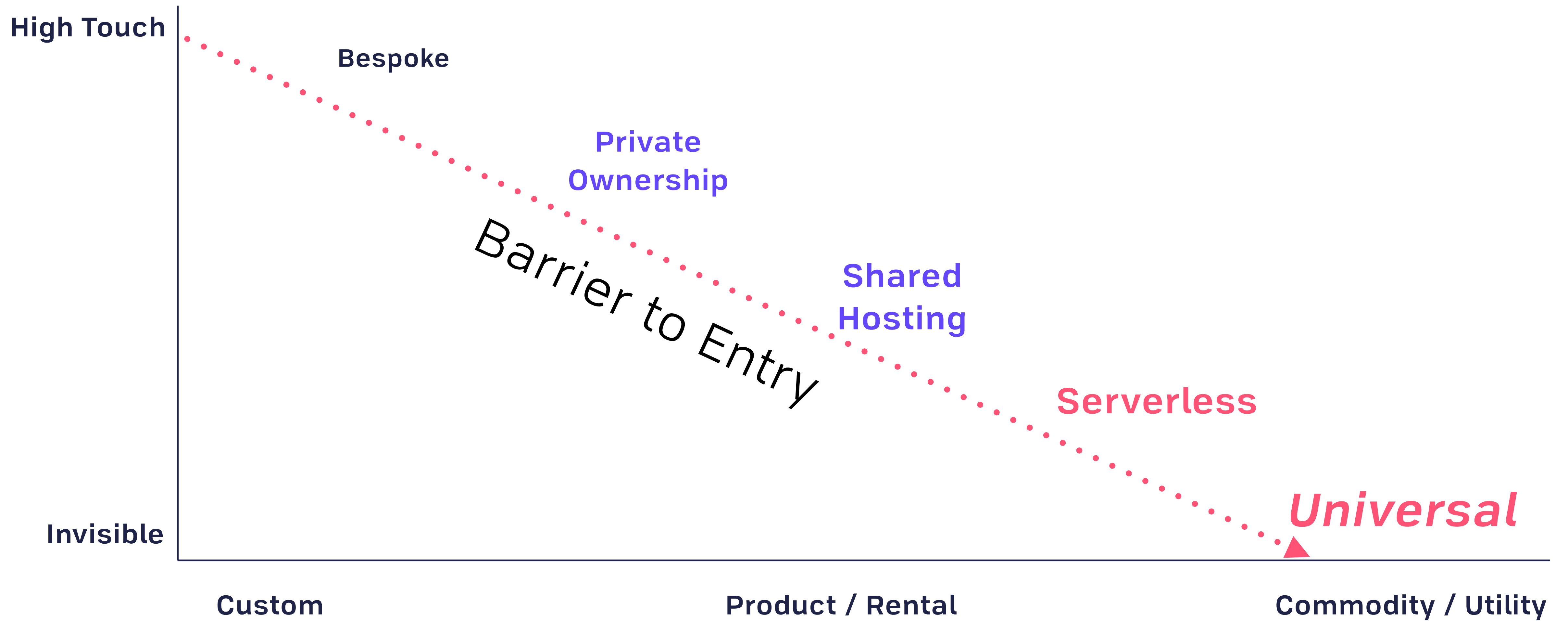
**Commodity / Utility**



MAKING LIFE EASIER FOR ALL DEVS  
LOWER BARRIERS



# MAKING LIFE EASIER FOR ALL DEVS LOWER BARRIERS



A SIMPLE DEMO

# A SIMPLE DEMO

 DECENTRALIZED WEB IN 30 SECONDS OR LESS – NO STEP 2 

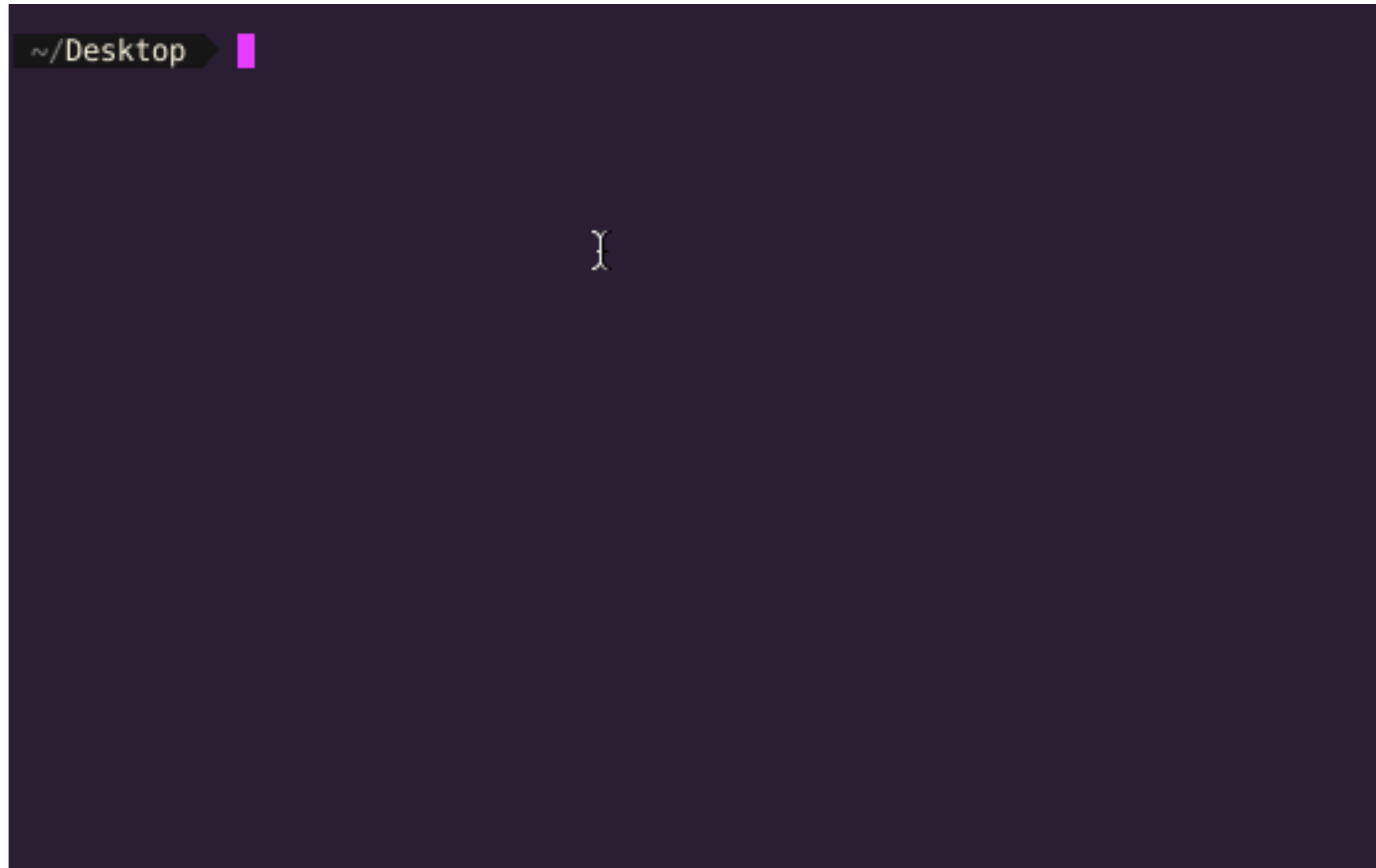
QUICK DEMO

MACOS INSTALL

```
brew tap fission-suite/fission  
brew install fission-cli
```

# QUICK DEMO

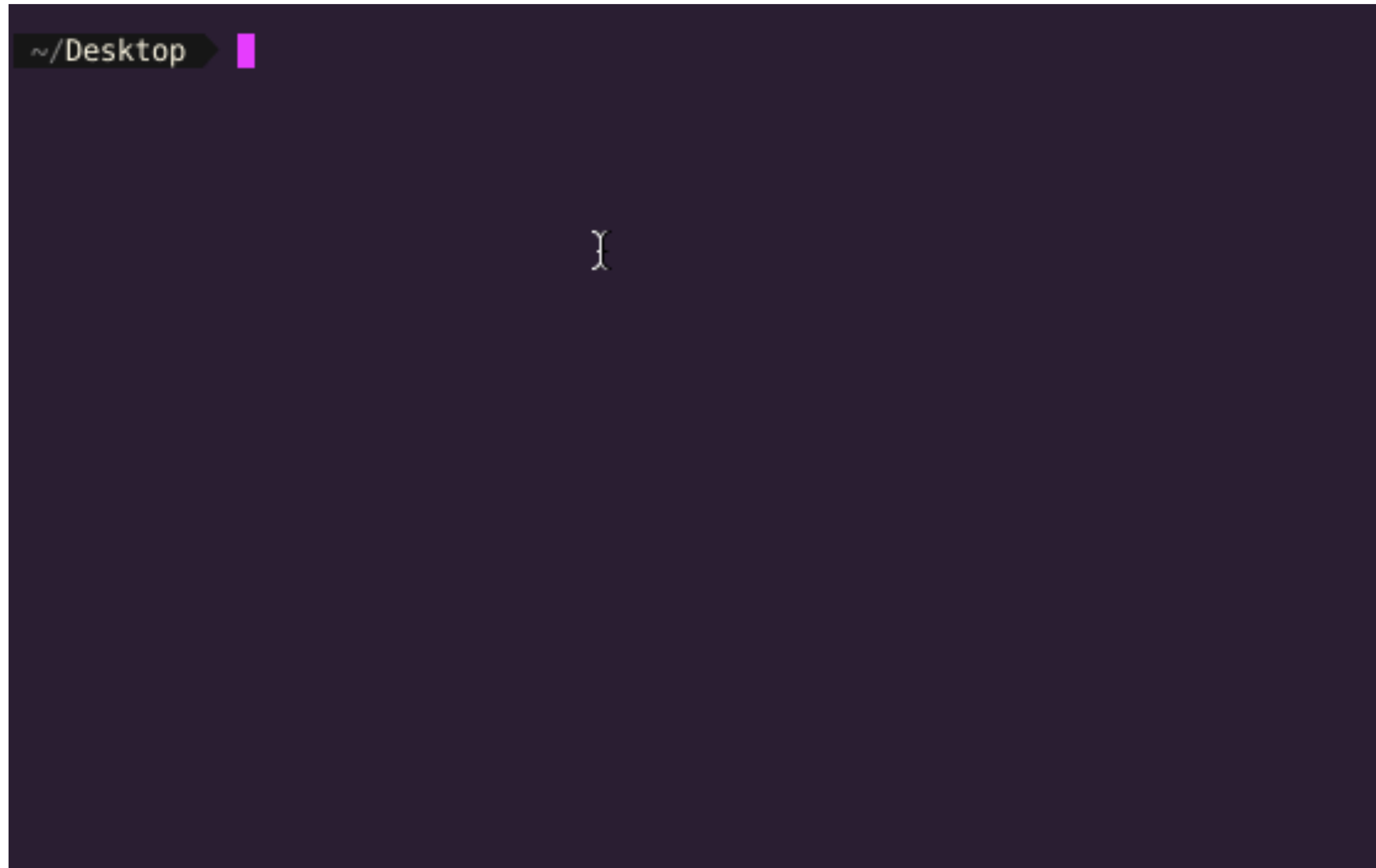
## HOW TO USE





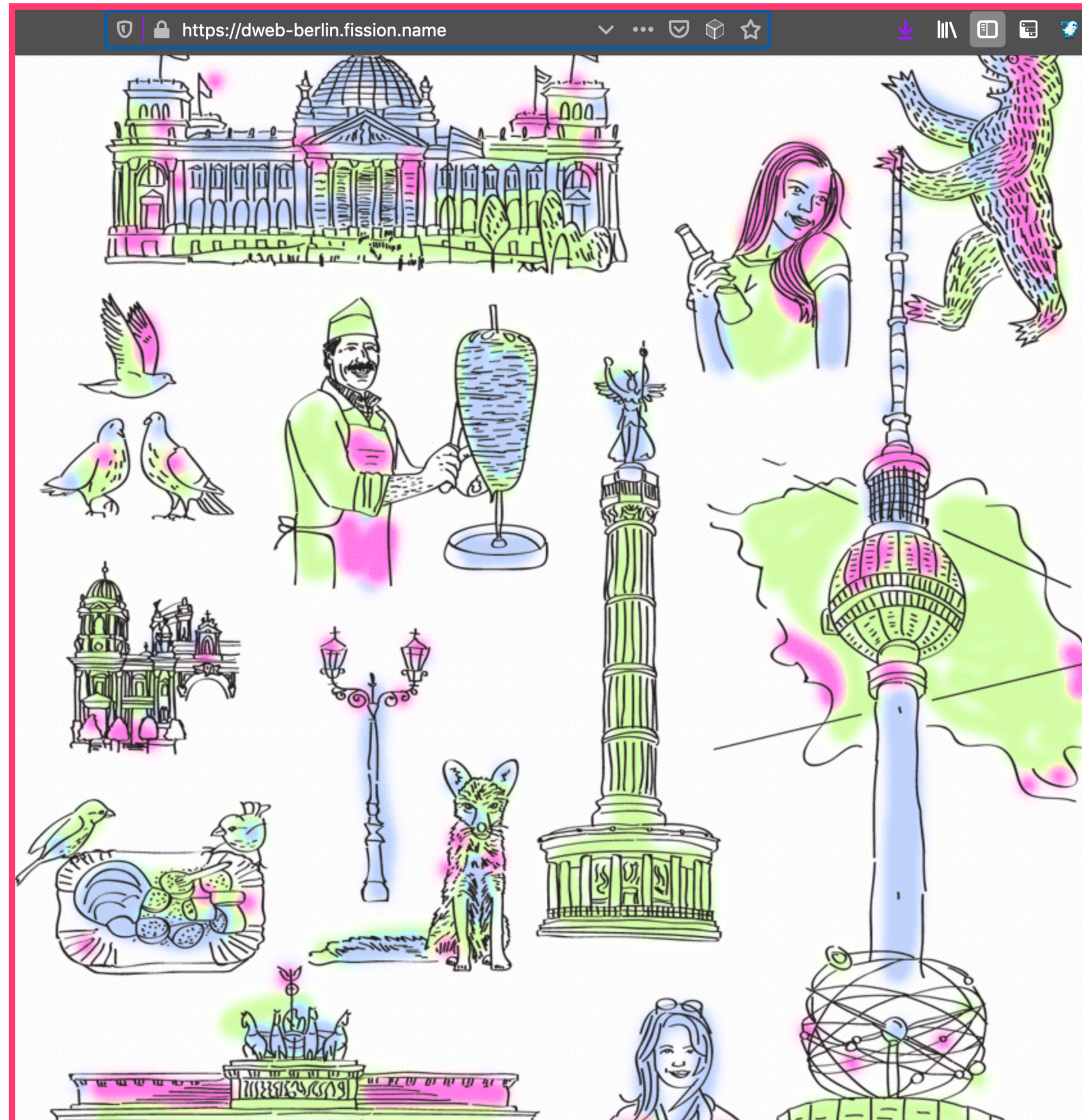
# QUICK DEMO

## HOW TO USE



# QUICK DEMO

## NO STEP 2



`https://fission.codes`  
`https://talk.fission.codes`  
`https://tools.fission.codes`



BEDANKT, AMSTERDAM



`brooklyn@fission.codes`  
`github.com/expede`  
`@expede`