

Welcome

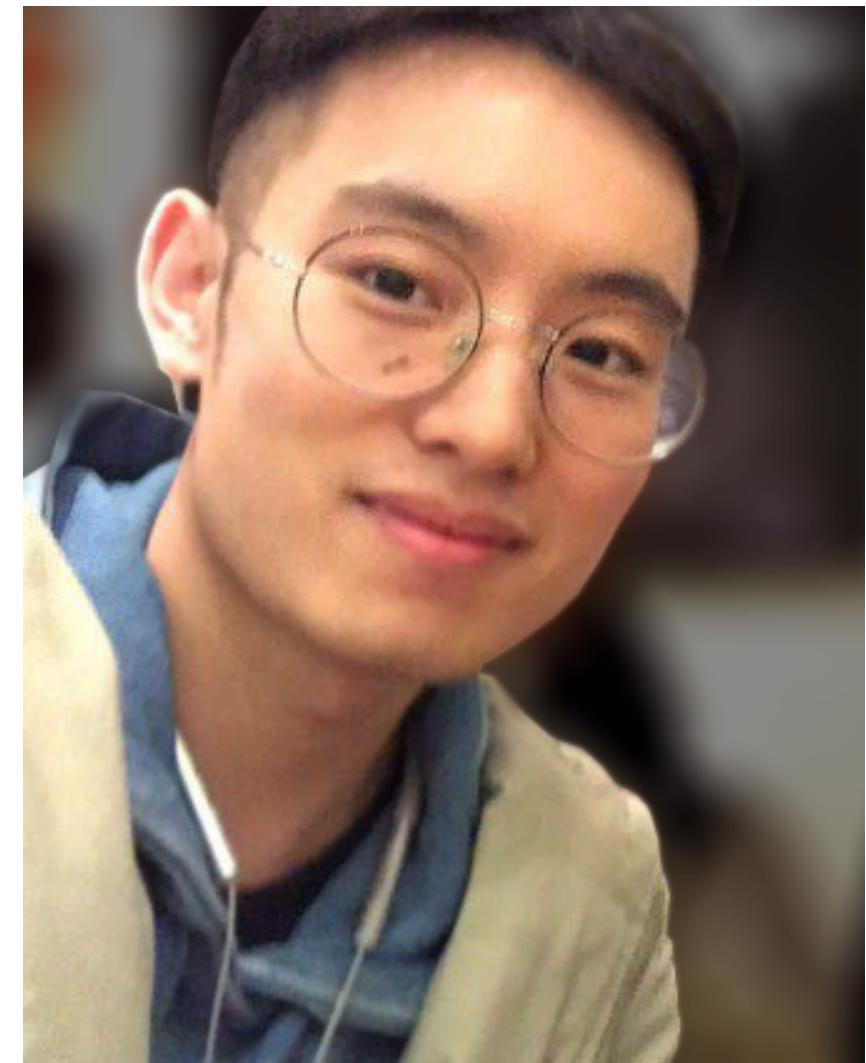


SoLiD Social Linked Data

Data Sovereignty of the
Creator of the WWW

谢扬(Xieyang) - Founder @ 蒸汽记忆(Steamory) / SoLiD China community

About me



Xieyang, Founder @ 蒸汽记忆(Steamory) / SoLiD China Community

Self -taught Programming in Junior Middle School. Since university, I have founded and participated in many Internet companies. 大二时开发的绘画交友社区曾获腾讯创业大赛银奖，此项目拿了接近十万块钱奖金。大学毕业后，曾任字节跳动 Hacker，负责公司 Serverless 产品和技术研发。

Personal Website: ivydom.com;

Agenda



Agenda:

- **Brief introduction to SoLiD**
- **SoLiD Benefits**
- **SoLiD to Developers**
- **Why SoLiD**
- **Damn SoLiD**



Brief introduction to SoLiD

Web Creator



Founder of W3C (万维网联盟)

MIT 计算机及智能实验室主席

英王功绩勋章获得者

不列颠帝国勋章获得者

美国国家科学院外籍院士

BBC 最伟大的 100 名英国人

南安普顿大学与麻省理工学院教授

第一个网页浏览器和第一个网页服务器的编写人

时代杂志20世纪最重要的100个人物

...



- W3C standards define an **Open Web Platform** for application development
- HTML、CSS、XML、WWW
- Semantic Web、Ontology、**RDF**、OWL、Web Services etc.

What is SoLiD



Social Linked Data(社交互联数据), which different from Data Sovereignty Revolution of Block Chain



You Own Your Data



You Control Your Data



Using SoLiD to Login

理解 SoLiD



- Understand what is Ontology
- Understand what is Social
- Understand what is Linked Data
- Understand what is POD

What is Ontology

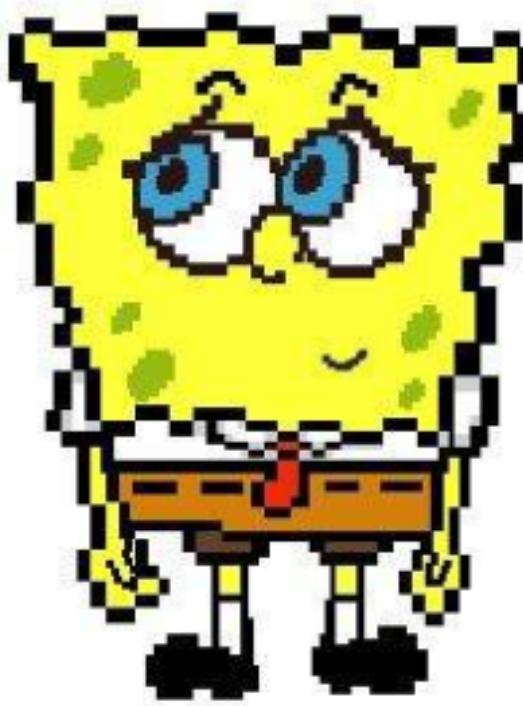


Ontology is the Data that describe Data, also called 「Meta Data」



Batman

- Mask: Black
- Cloak: Black
- Belt: Yellow
- Shoes: Black



Spongebob

- Skin: Yellow
- Eyes: Blue
- Jeans: Brown
- Speckle: Brown



Darwin Core

- Root: xxx
- Stem: xxx
- Leaf: xxx
- Flower: xxx

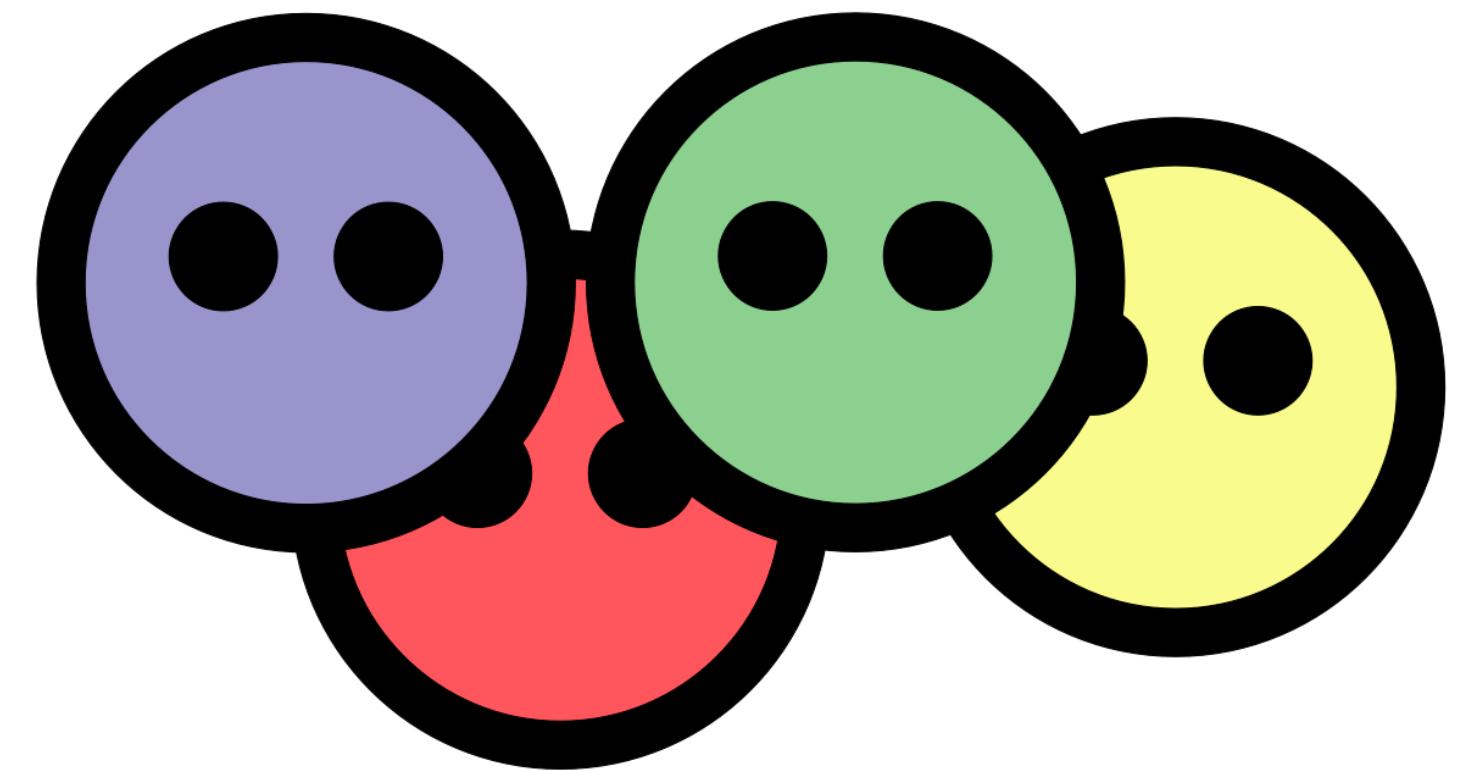
What is Social



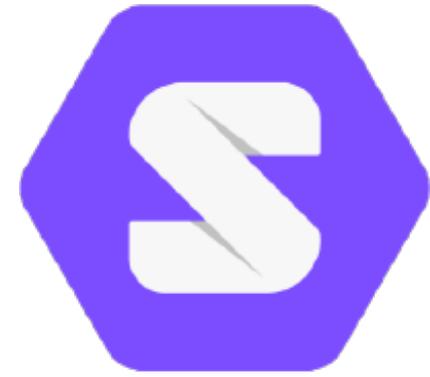
SoLiD 定义的 Social 是社交关系的集合

FOAF (an acronym of friend of a friend) is a machine-readable ontology describing persons, their activities and their relations to other people and objects. Anyone can use **FOAF** to describe themselves. **FOAF** allows groups of people to describe social networks without the need for a centralised database.

— — Wikipedia



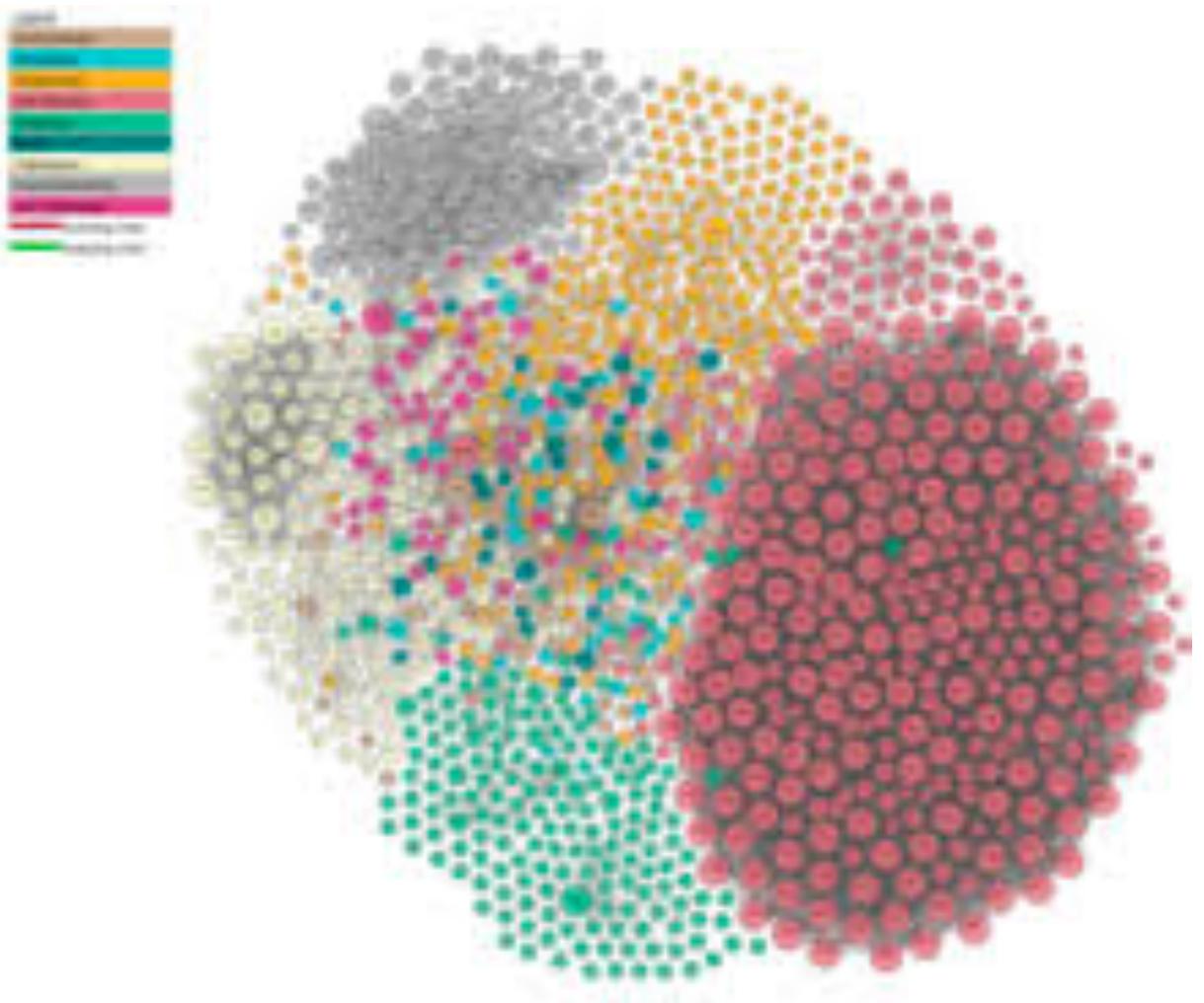
What is Linked Data



SoLiD 使用关联数据描述所有数据之间的关系

Linked data. From Wikipedia, the free encyclopedia. In computing, linked data (often capitalized as **Linked Data**) is **structured data** which is interlinked with other data so it becomes more useful through semantic queries.

— — Wikipedia





What is POD

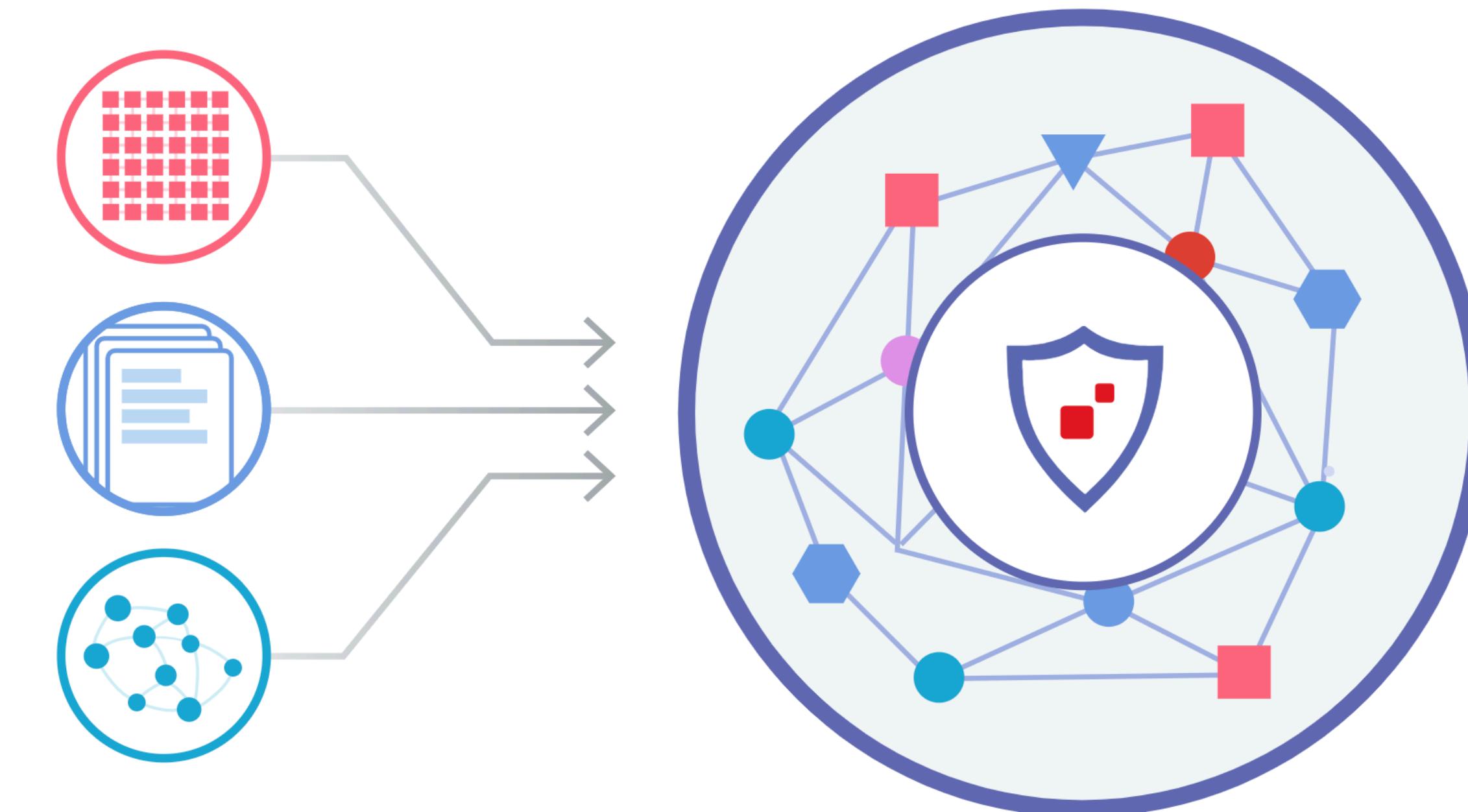
POD is Personal Online Data, which used to store digital data of users

Store Everything

Programmable Dropbox

Private digital data repo

Everyone has an ID called WebID





SoLiD Benefits

Application cognitive subversion brought by SoLiD



- Changes in Data Writing
- Changes in Data Reading
- Changes in Innovation Entry

Changes in Data Writing



1、数据和应用分离

Author's name and latest profile picture
stored in author's personal data pod

2、授权谁能向自己的 Pod 中写数据

Work-related opinion about an article
stored in data pod of author's company

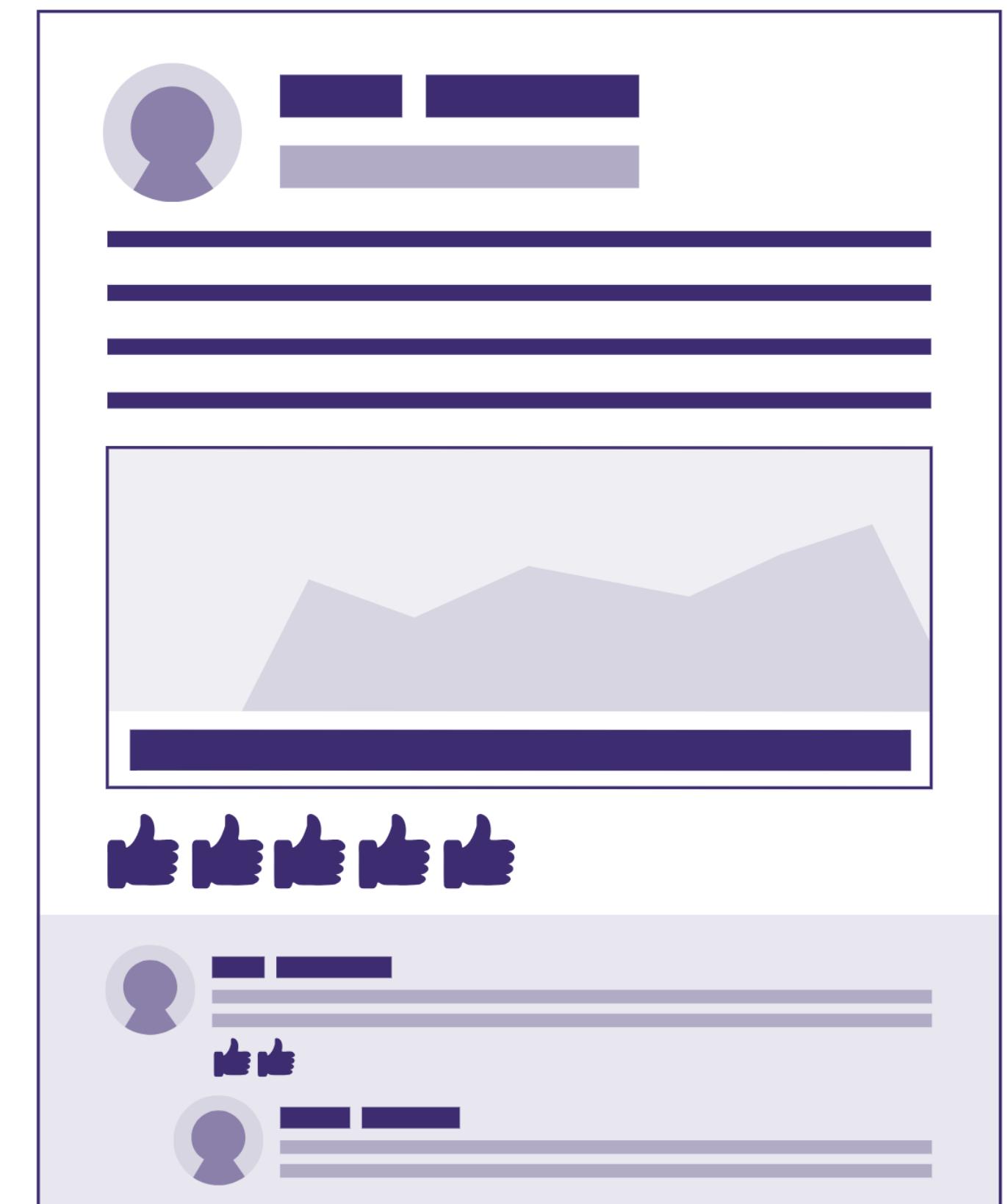
3、保护敏感数据

Discussed article title and photo
stored in news website's data pod

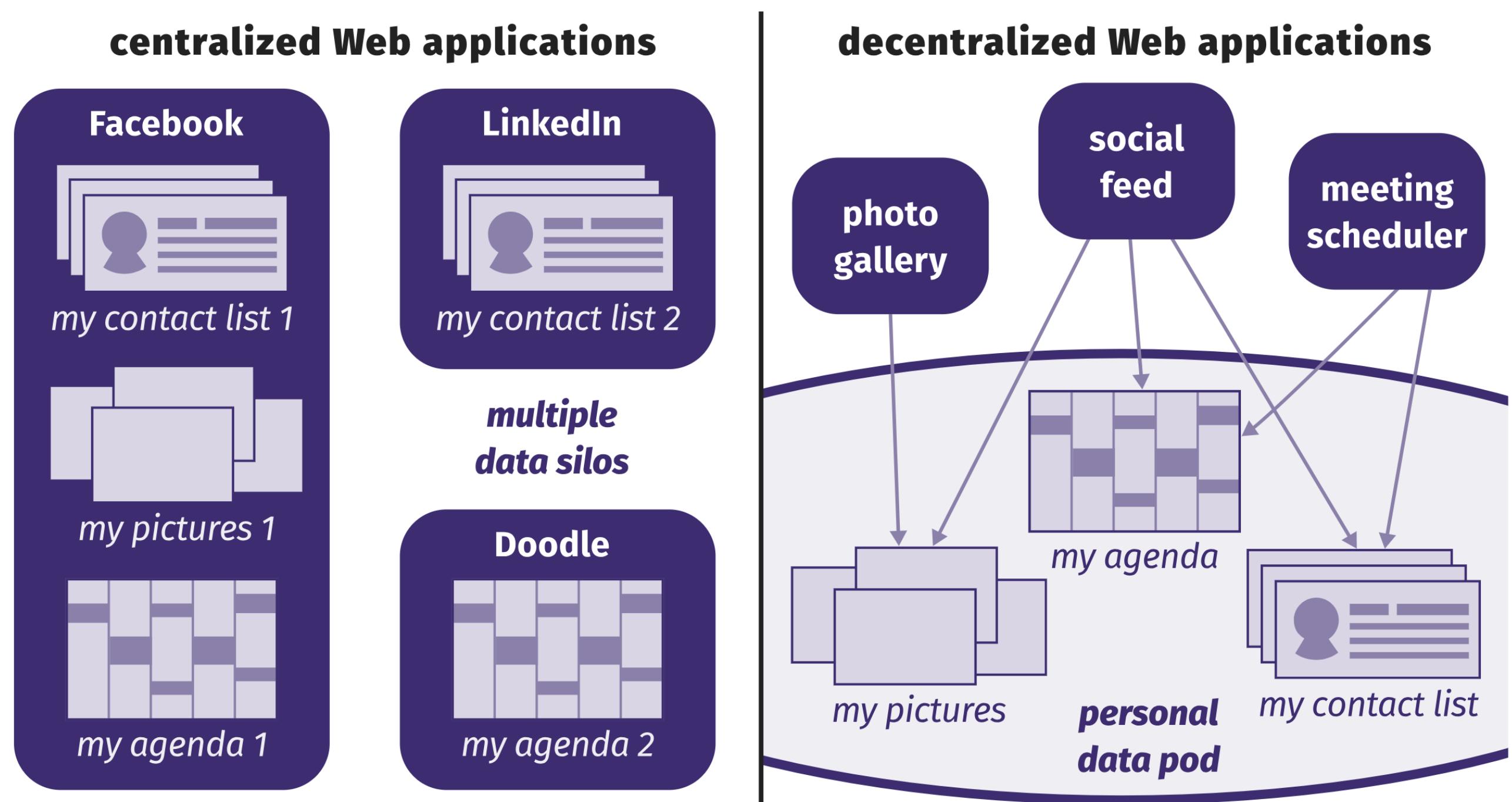
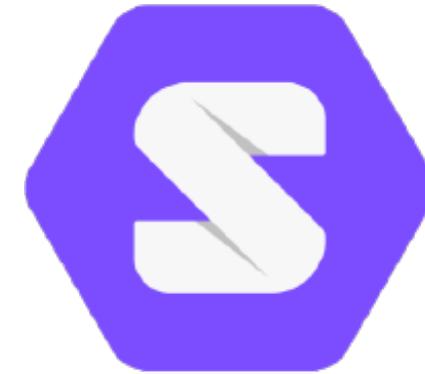
4、自己决定存储到哪

Likes on this post
each one in different individuals' data pods

Comments on this post
each one in different individuals' data pods



Changed in Data Reading



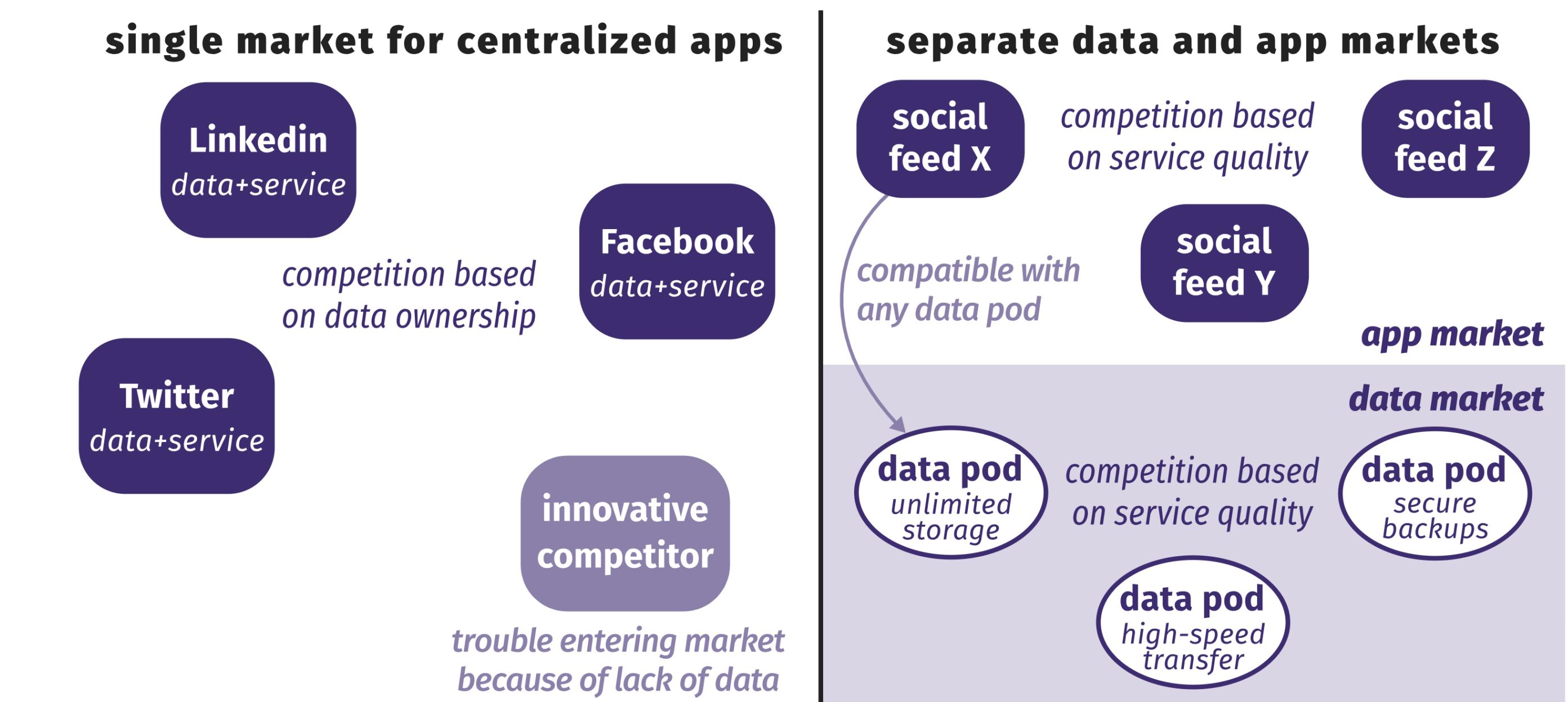
Centralized Web applications act as silos that do not share data with each other.
Decentralized Web applications act as shared views on top of personal data pods.

- 1、会产生新的商业模式
- 2、授权谁能向自己的 Pod 中写数据
- 3、保护敏感数据
- 4、自己决定存储到哪

Changes in Innovation Entry



- 1、数据重复利用
- 2、应用间是互联的
- 3、数据不再是创新壁垒
- 4、体验优先而非数据优先





SoLiD to Developers

SoLiD Dev Experience: From Academic to Engineering

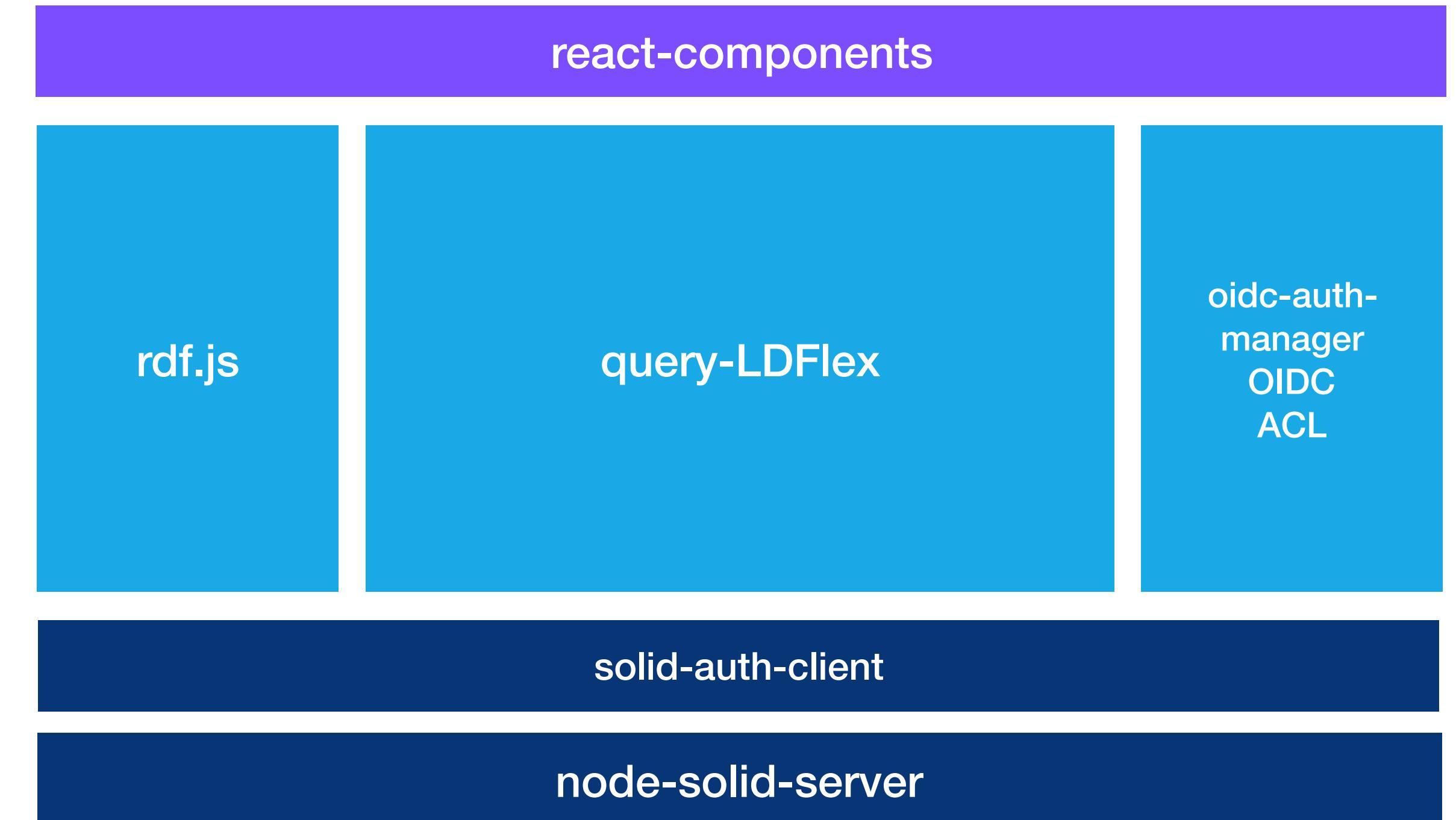


1、Open Source

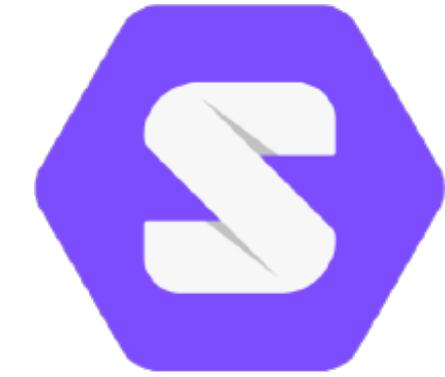
2、Reducing the difficulty and cost of use

3、Actively integrate to the Morten developer ecosystem

4、Actively use mature storage systems



Turtle VS JSON-LD



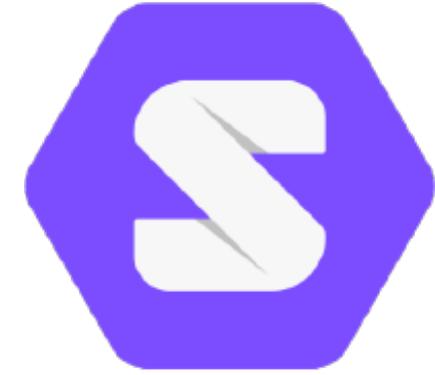
Turtle

```
@prefix : <#>.  
@prefix solid: <http://www.w3.org/ns/solid/terms#>.  
@prefix pro: <./>.  
@prefix n0: <http://xmlns.com/foaf/0.1/>.  
@prefix st: <http://www.w3.org/ns posix/stat#>.  
  
:me  
  a schema:Person, n0:Person;  
  ldp:inbox inbox:;  
  sp:preferencesFile </settings/prefs.ttl>;  
  sp:storage n1:;  
  solid:account n1:;  
  solid:privateTypeIndex </settings/privateTypeIndex.ttl>;  
  solid:publicTypeIndex </settings/publicTypeIndex.ttl>;  
  n0:name "alicea".
```

JSON-LD

```
{  
  "@context": "https://json-ld.org/contexts/  
  person.jsonld",  
  "@id": "http://dbpedia.org/resource/John_Lennon",  
  "name": "John Lennon",  
  "born": "1940-10-09",  
  "spouse": "http://dbpedia.org/resource/Cynthia_Lennon"  
}
```

RDF.js VS LD-Flex



RDF.js

```
const store = $RDF.graph();
const fetcher = new $RDF.Fetcher(store);
const fullName = store.any($RDF.sym(user), FOAF('name'));
$('#fullName').text(fullName && fullName.value);
```

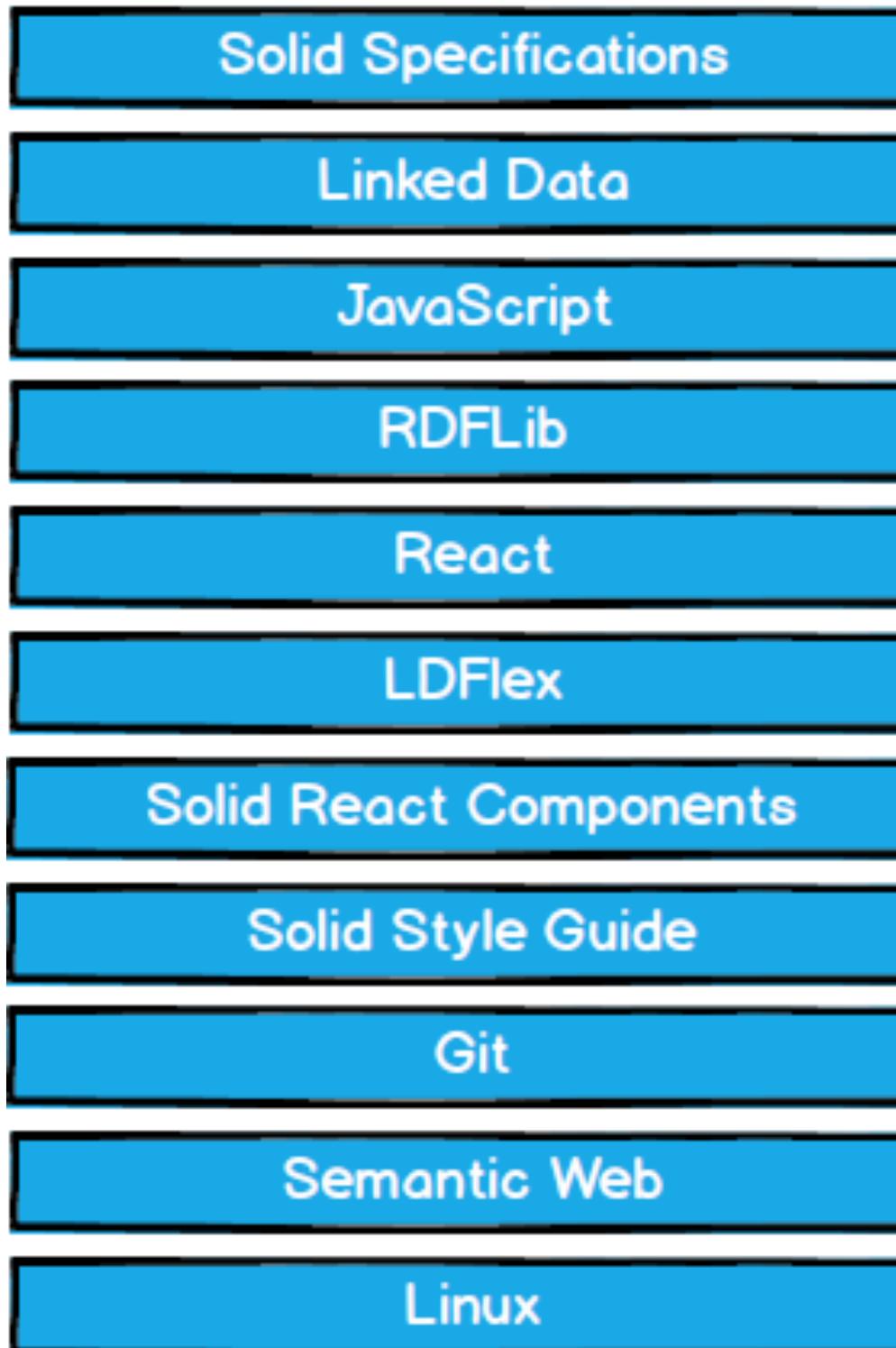
LDFlex

```
solid.data['https://ivydom.solid.authing.cn/profile/#me'].firstName;
```

SoLiD Roadmap

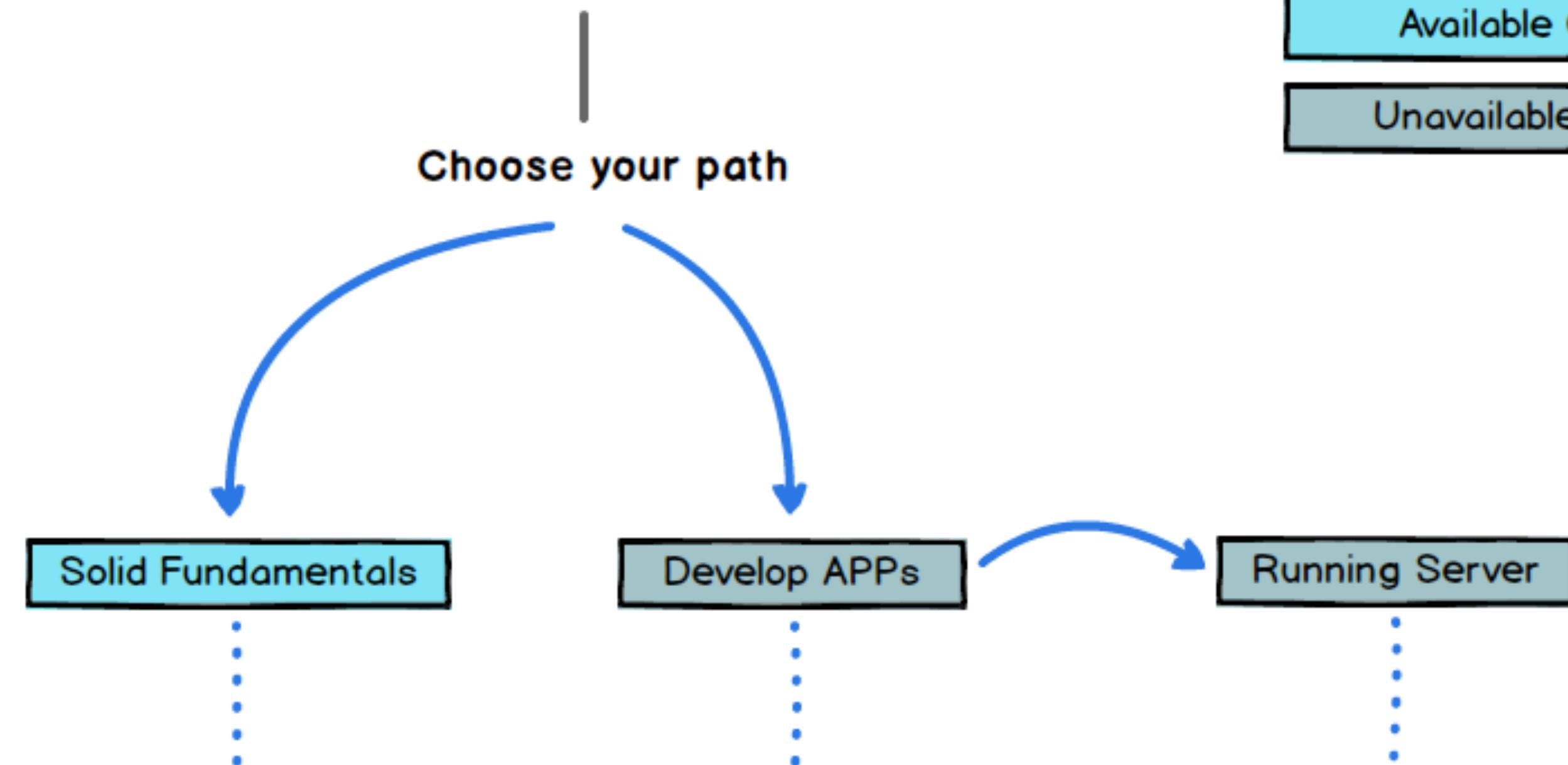


Required for any path



SoLiD Developer in 2019

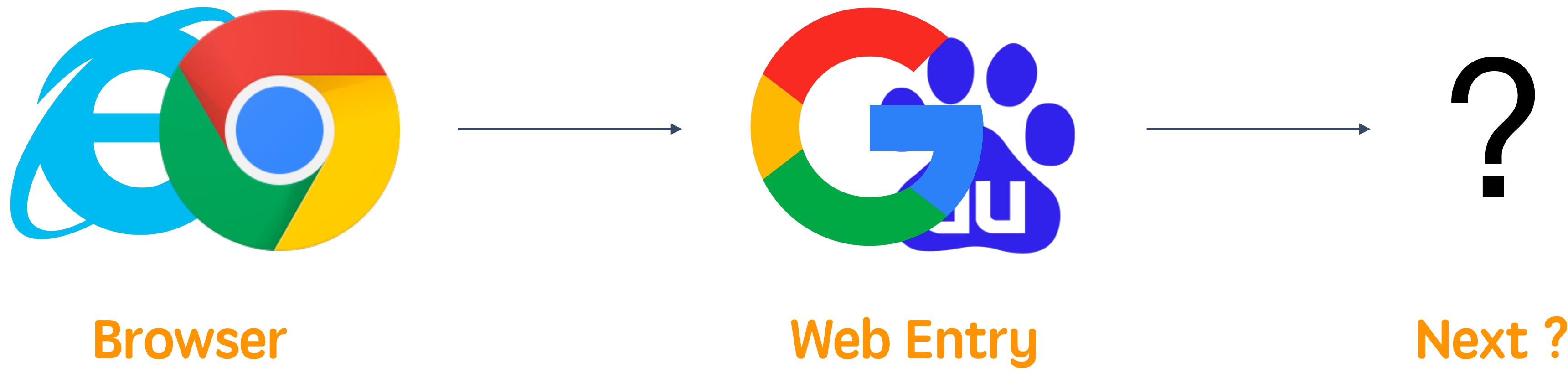
Choose your path



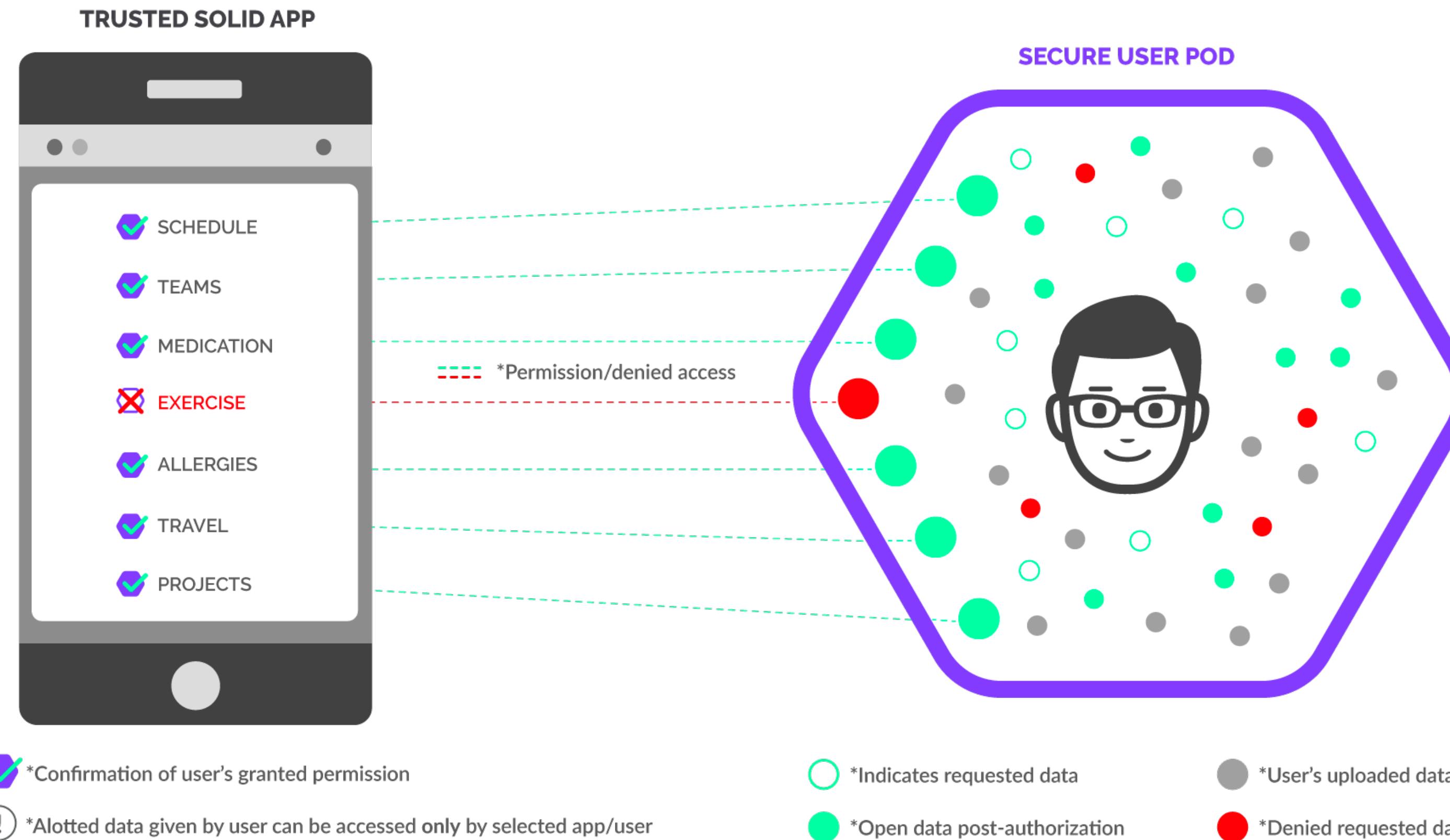
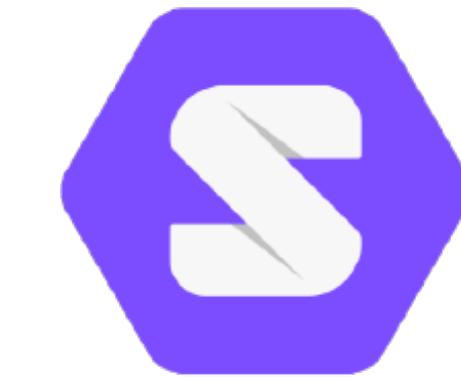


Why SoLiD

History of Web

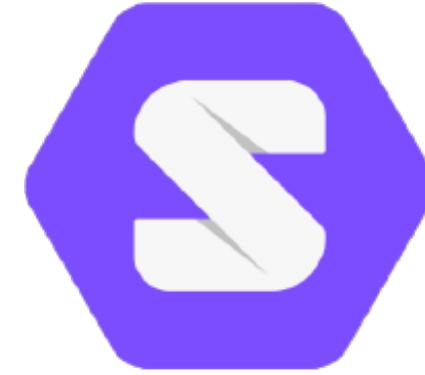


History of Web

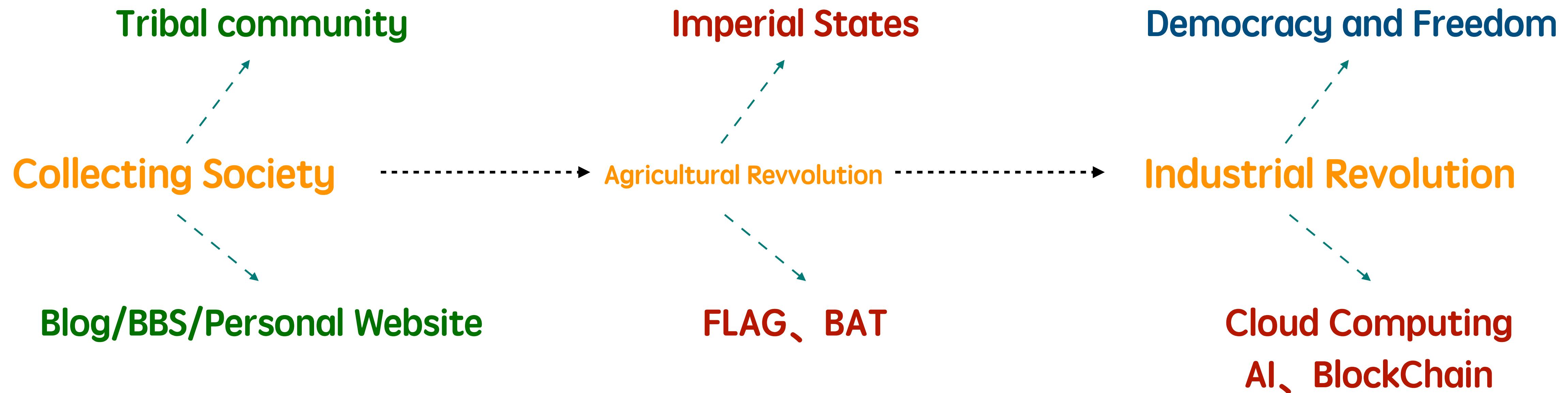


Next: Identity and Data

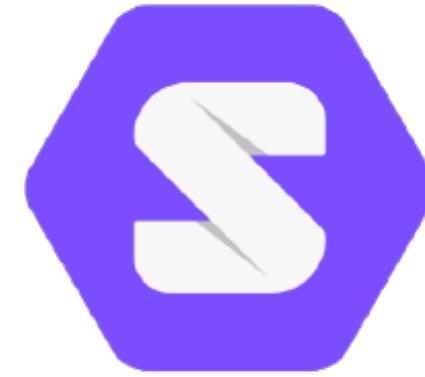
The Road to Data Democracy



互联网是人类社会发展的缩影，数据民主是必由之路



The Road to Data Democracy



互联网是人类社会发展的缩影，数据民主是必由之路

历史开始于人创造神

—— 未来简史

- 1、人脑能够虚构并传达故事
- 2、人形成不同的语言和文化
- 3、人发现自己的无知
- 4、人发展出了不同的政治制度

历史终结于人成为神

—— 未来简史

- 1、人追求不死、快乐和神性
- 2、科学必将介入人的生命
- 3、数据将进化成新的智人
- 4、在超人类掌控世界时，
你想要自己掌控自己的数据，
还是想有一个人可以随意删改你的数据？



Damn SoLiD

SoLiD Bad Sides



Developer Unfriendly



Giant dislikes

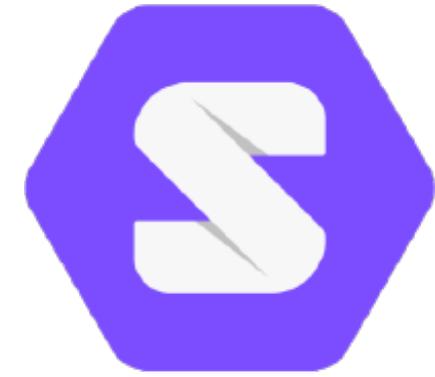


Anti-human



Unstable

蒸汽记忆 | Steamory



We build Identity-Centered Operating System, which serves for global creative workers



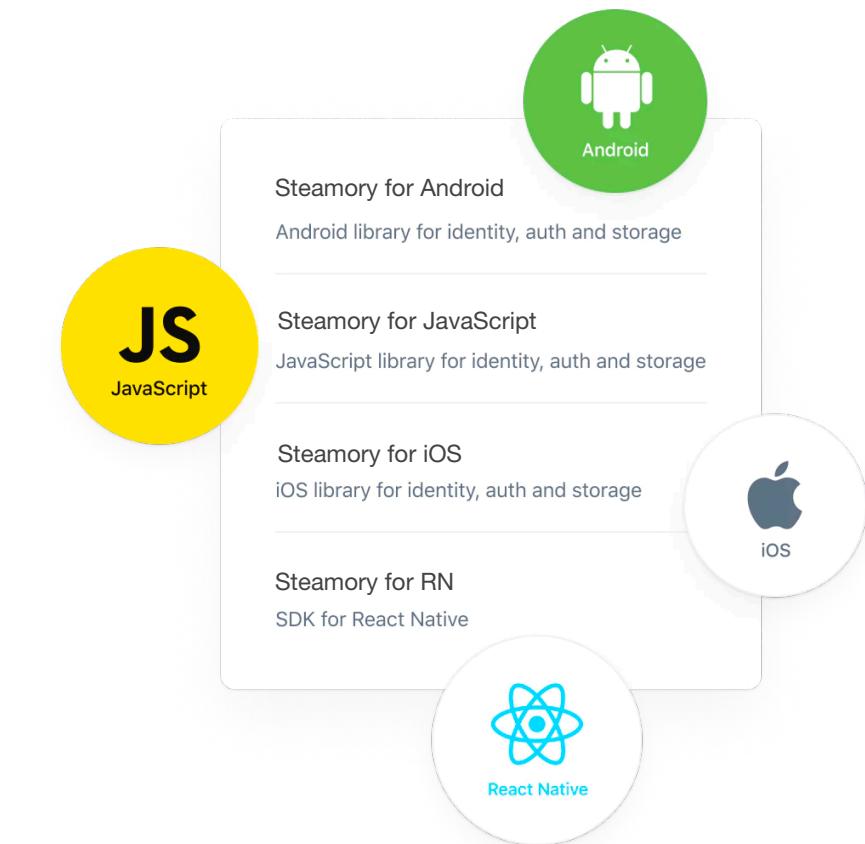
Authing

Identity Cloud



Open Linked Data Cloud

打破数据孤岛
在应用间无限制的共享和修改数据



Developer Tools

Thanks

