

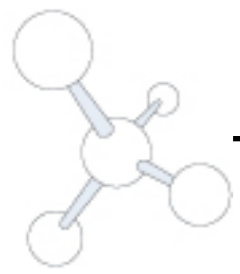
Dynamic Contextualization

The HyperJournal Citation Linking System

Michele Barbera

barbera@netseven.it

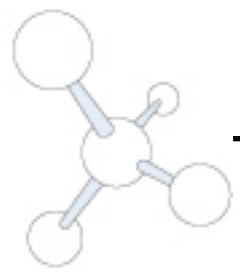




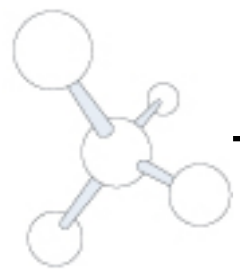
- Sources discovery
- Selection among the available sources
- Production of new information
- Publication of the research results



- The problem faced by researchers is not to find information but to find **the** information which adheres to each researcher's own quality criteria.
- Free and **universal** information space
- The model introduced by the **Science Citation Index** has **several disadvantages**
- Danger of a **monopolistic** control
- Enforces a **single notion of quality**



- Humanities research as well as part of the publishing and dissemination expenses are mostly financed by **public funding**
- The idea of **authors as publishers** also enforces the original design of the world wide web and is a viable way to overcome the serial price crisis. For this reason **all the technological and organizational activities of Hyper-Learning are centred on the idea of authors as publishers.**

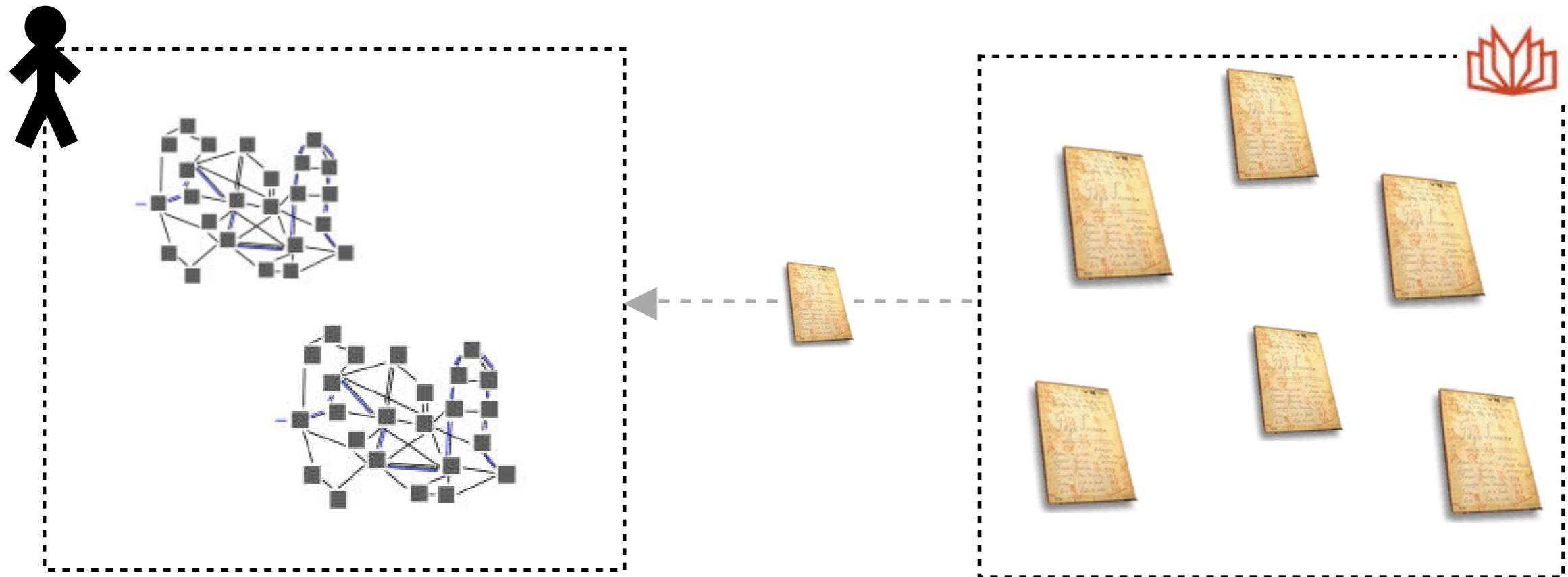
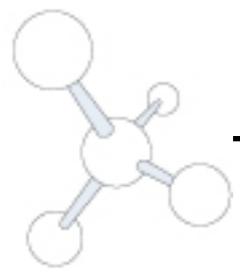


What we want from a citation linking system? ;

- A stable URI for each document.
- Bi-Directional links
- Forward Links
- Extensibility
- **Collaborative** annotation facilities



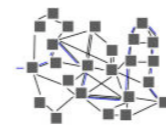
- Different organization have different access policies
- Limited use of **open structured formats** within the humanities
- Journals mostly accept only **PDF** and **MS Word**
- The HTML linking mechanism is poor
- The Humanities scolarly sommunity need a “**soft**” approach



Article



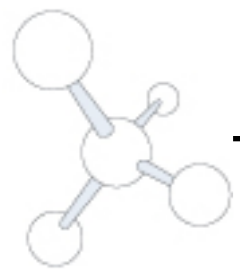
Publisher



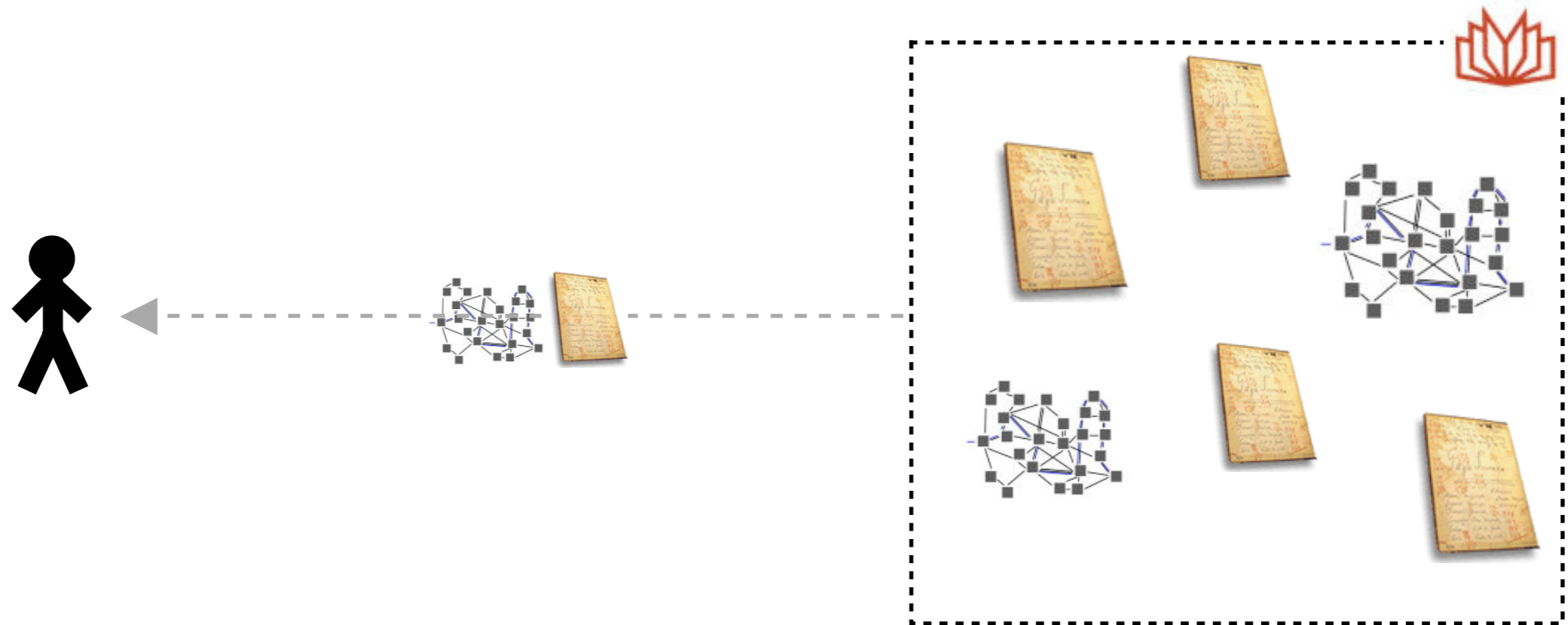
Linkbase



User



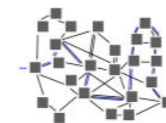
Publisher control model ;



Article



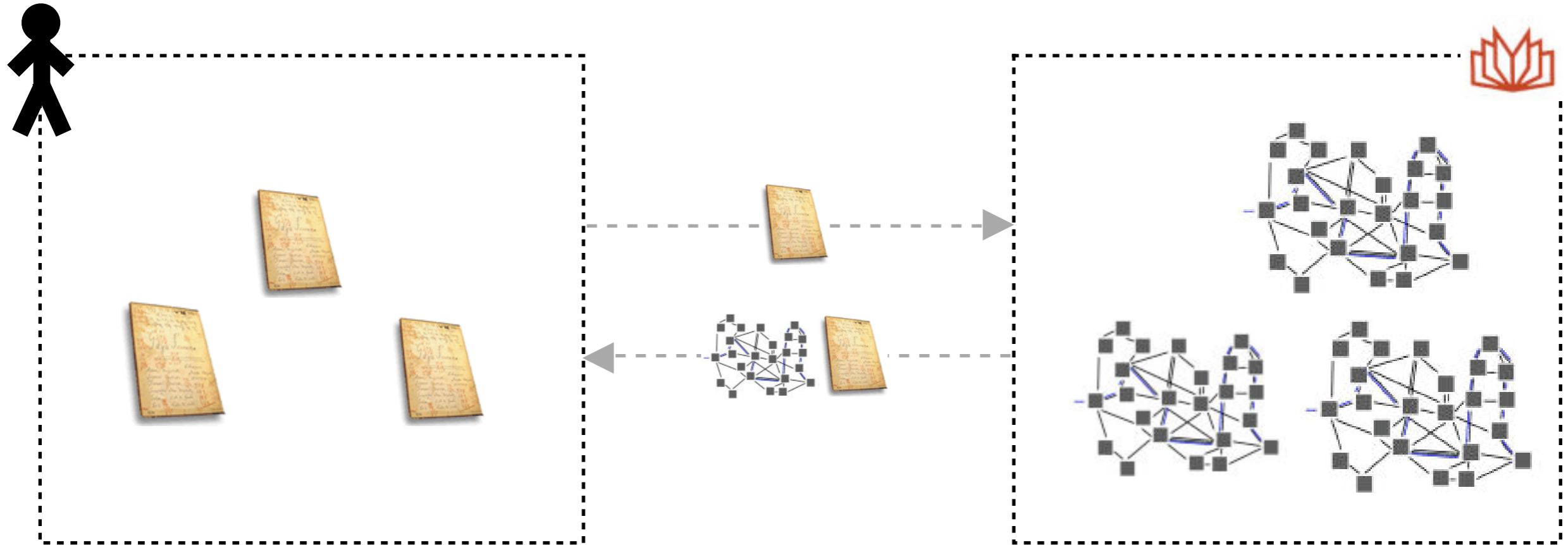
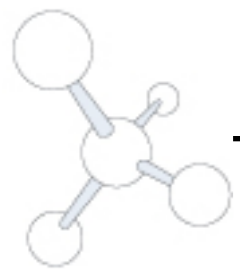
Publisher



Linkbase



User



Article



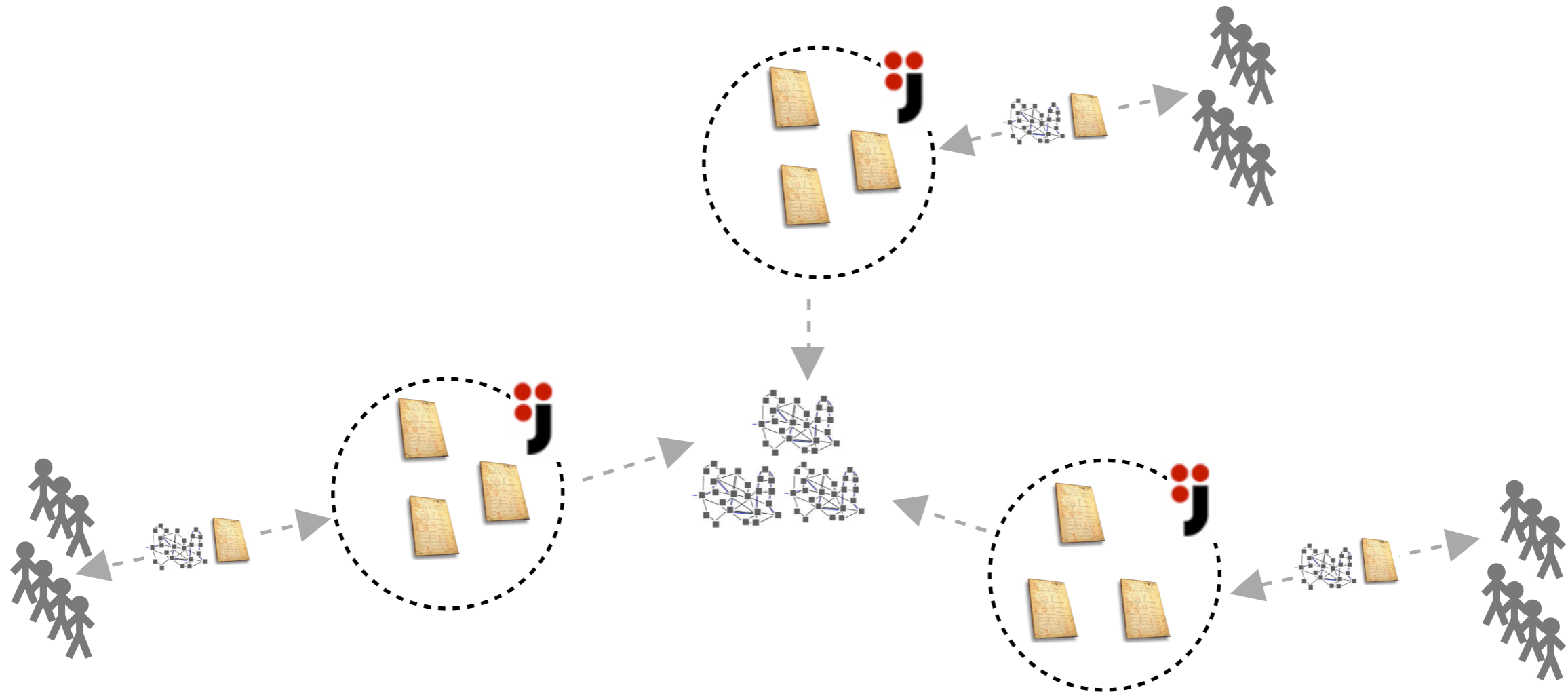
Publisher



Linkbase



User



Article



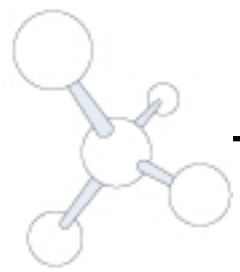
Publisher



Linkbase



User



HJ-PP

alice-2[par]1

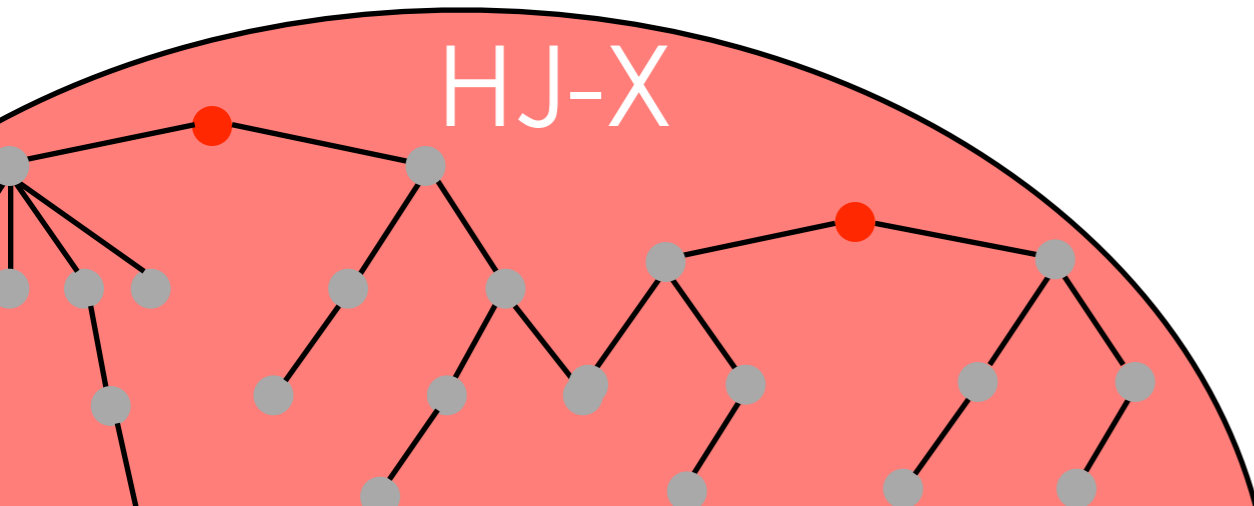
maps to

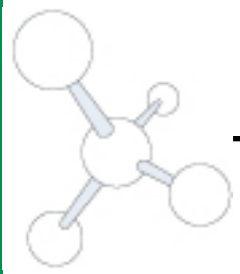
www.hj-cs.org/article3249.pdf

from byte 309584 to byte 90257805

HJ-CS

HJ-X





HJ-PP

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<author>Bob</author>  
<title>Bob's Article</title>
```

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...  
<sect1>  
  <title>paragraph 2</title>
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  this is a paragraph
```

```
</sect1>
```

```
</article>
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[par] 1

references(HJ-PP/bob-3[par]1, HJ-CS/alice2[par]1)

Contextualization Engine

HJ-CS

HJ-X

HJ-Y



$P = \{\text{The } H_j \text{ federation URI Space}\}$

Bi-Directional Links

$\forall x \mid x \in P, \text{reference } (x,x)$

Reflexivity

$\forall (x,y) \mid x,y \in P, \text{reference } (x,y) \Leftrightarrow \text{reference } (y,x)$

Simmetry

Relation of Partial Order

$\forall x \mid x \in P, \text{isPartOf } (x,x)$

Reflexivity

$\forall (x,y,z) \mid x,y,z \in P, \text{isPartOf } (x,y) \wedge \text{isPartOf } (y,z) \Rightarrow \text{isPartOf } (x,z)$

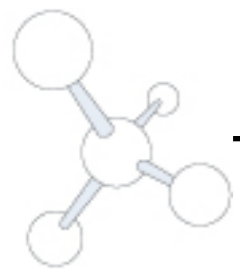
Transitiveness

The citation rule

$\forall (x,y,z) \mid x,y,z \in P, \text{reference } (x,y) \wedge \text{isPartOf } (x,z) \Rightarrow \text{reference } (z,y)$



- Extend our **ontology**
- Allow collaborative annotation
- Enrich the **inference rules**
- Adoption of higher level (functional?) languages?
- **Implement selection filters based on trust**



Thank You!

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