

# InfoGarden

A Casual-Game Approach to Digital Archive Management

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# Problem

- Overwhelmed by **personal** digital archives

- ▶ Exponential growth [IDC 09]
- ▶ Easy storage - easy loss [Marshall'08]
- ▶ Continuous attention to ensure archive survival
- ▶ No crowd-sourcing due to privacy

emails  
movies  
jpegs  
docs

- Attending digital archives tedious

- ▶ Users don't seem to have time for that

# Game Reward Hypothesis

- Idea: Recast archive maintenance as game
- Examples of productive games:
  - ▶ PSDoom [CHI'01]
  - ▶ ESP [CHI'04], “games with a purpose” (gwap.com)
- 2007 Casual Games Association report:
  - ▶ 7-15 hours of play a week!
  - ▶ Plenty of “solitaire cycles” for archive maintenance

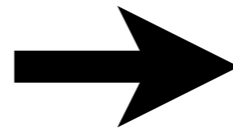
A game approach significantly increases time users dedicate to archive maintenance

# InfoGarden

- Focus on tagging
- Idea: personal archive  $\approx$  garden



Neglected  
archive



Well-maintained  
archive

# Semantics



Weed: document without tags



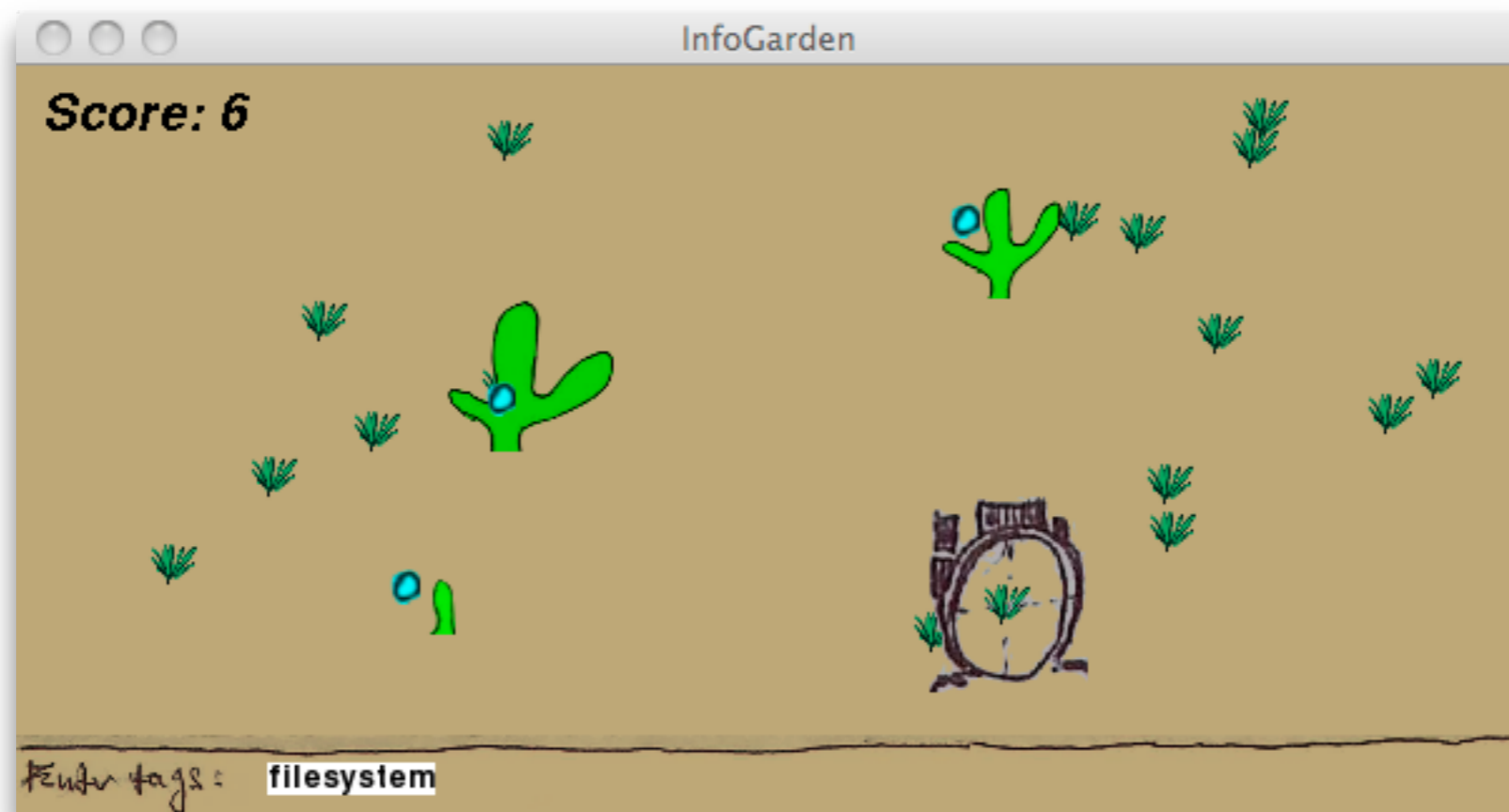
Plant: taxonomy (tag hierarchy)







Fruit: document / taxonomy association

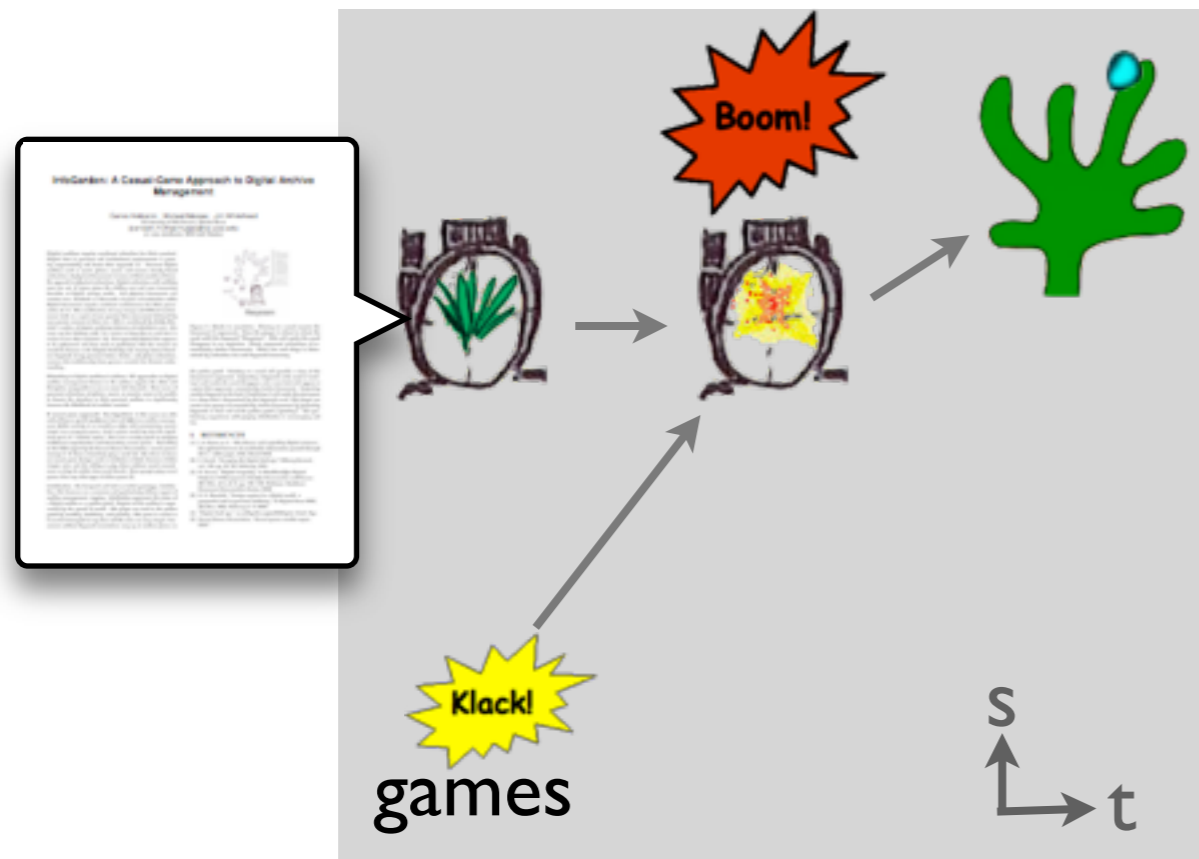


Crosshairs: reveals documents, taxonomies







# Shooting weeds with words

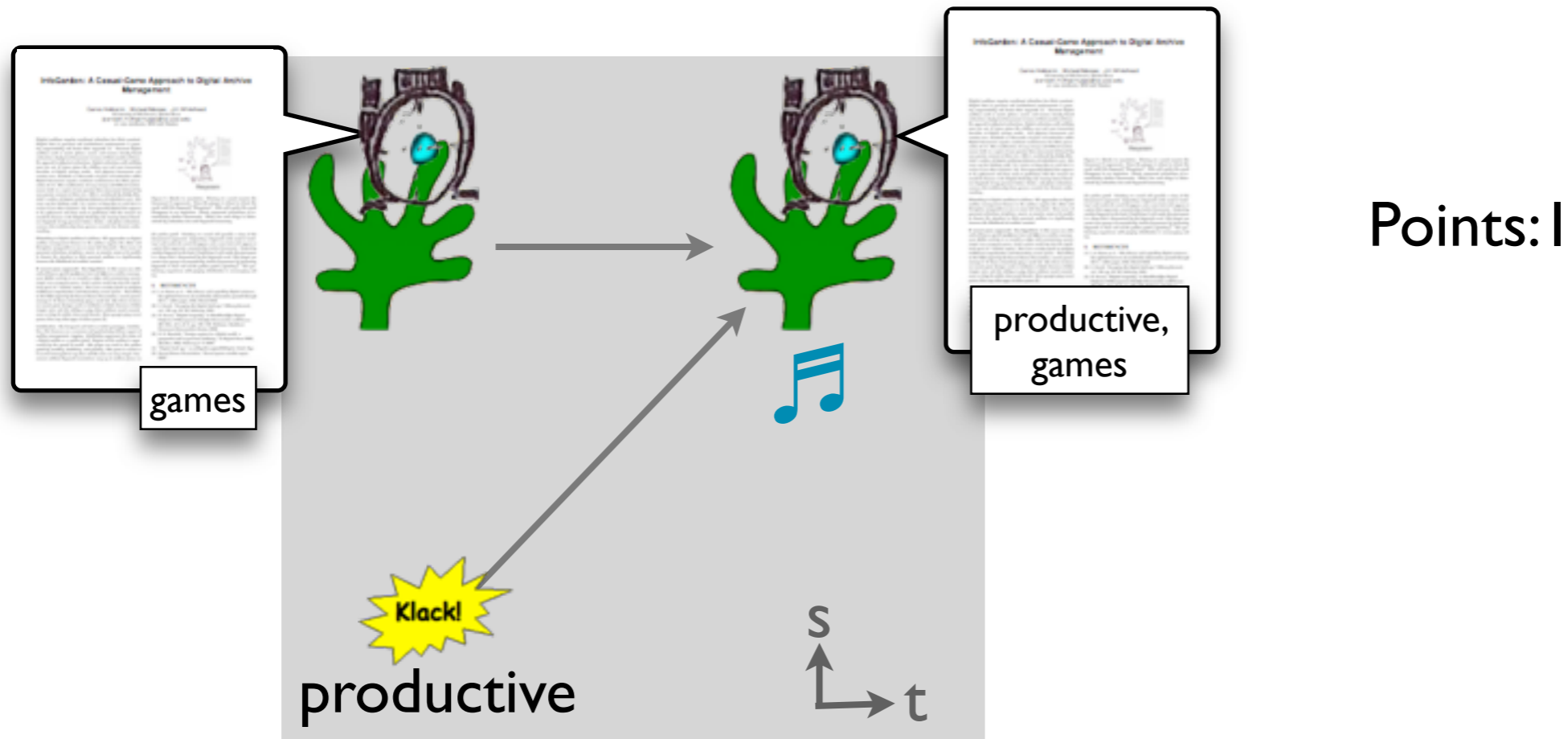
-  Weed: document without tags
-  Plant: taxonomy (tag hierarchy)
-  Fruit: document / taxonomy association
-  Crosshairs: reveals documents, taxonomies



Points:  $1 + |\text{new fruits}|$   
Plus value of tagged file!

# Shooting fruit with words

-  Weed: document without tags
-  Plant: taxonomy (tag hierarchy)
-  Fruit: document / taxonomy association
-  Crosshairs: reveals documents, taxonomies



# Revealing taxonomy



Weed: document without tags



Plant: taxonomy (tag hierarchy)



Fruit: document / taxonomy association



Crosshairs: reveals documents, taxonomies



```
games 8
  productive 1
  related:infogarden 1
  journal 1
  oss 1
  dynamics 1
  humancomputation 1
  casual 1
```



# See us at our poster!

- Example topics:
  - ▶ Plant morphology
  - ▶ Scalability
  - ▶ Scoring
  - ▶ Can I try it out? (Sure!)
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