

# Semantic Email on the **Social Semantic Desktop**

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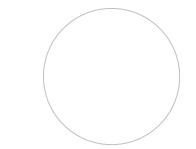
## Outline...

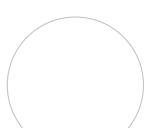


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Introduction

- Semantic Desktop
- Email
- − Semantic Email → Social Semantic Desktop
- Semantic Email
  - Semantic Annotation
  - Email Ad-hoc Workflows
  - Workflow Example
- Semanta Your Personal Email Assistant
- Future Work & Conclusion





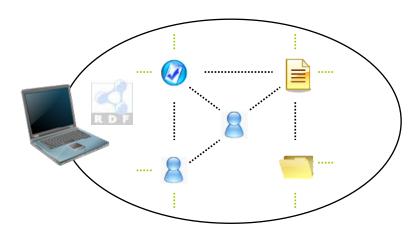


## Semantic Desktop



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- Semantic Web technology on the Personal Desktop
- Objects on the desktop become Resources with a URI
- Semantic Web Technologies improve Data Integration and Retrieval



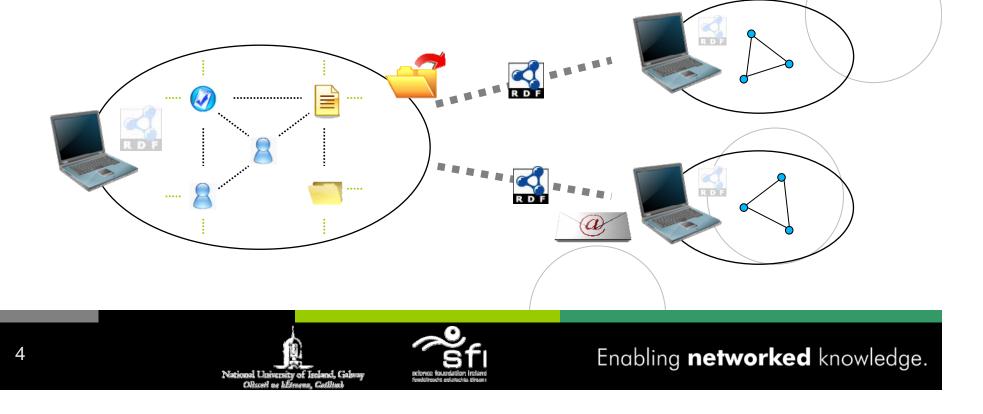




## Social Semantic Desktop



- Sharing resources within Network of Semantic Desktops
- Social aspect of SSD depends highly on Communication
- Communication channels need to support Semantic Knowledge



## Email



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- Most popular means of *Electronic Communication* 
  - Asynchronous Communication
  - Flexible, dynamic nature
- Email is also a Virtual Workplace
  - Collaborative Environment
  - Knowledge creation, management and sharing
- Email Problems
  - Email Tracking
  - Email Classification
  - Email Retrieval
  - Email Overload

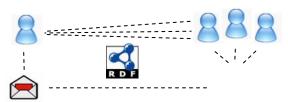


## Semantic Email

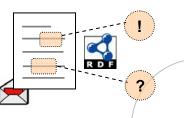


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- Eases *Email Overload* Classification, Retrieval, Tracking
- Enhances Data Representation + Unification on and between SSD's
- Email Annotation
  - i. Thread metadata Email Sequence, Social, Temporal Metadata



ii. Content metadata - Intents and Expectations of written dialogue





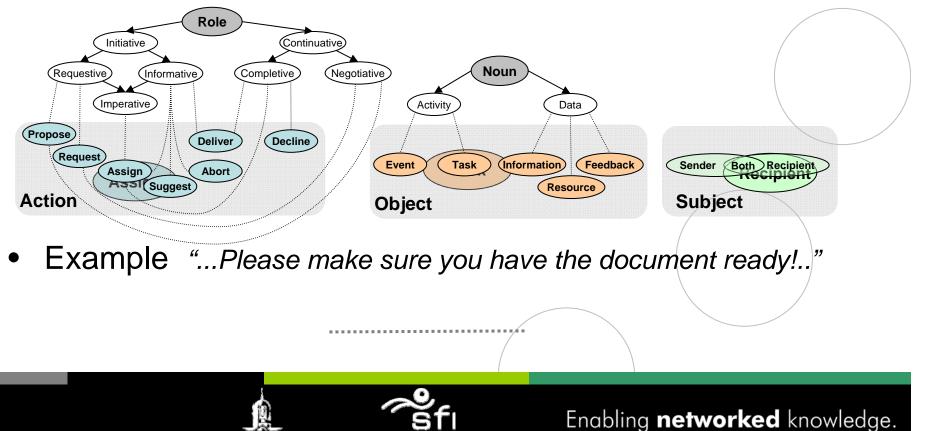
## **Email Speech Acts**

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- Speech Act Theory
- Multiple Intents and Expectations of an Email's content
- Email Speech Act Model: [Action, Object, Subject]



# **Email Ad-Hoc Workflows**



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- Email Conversations consist of concurrent, implicit, wellformed Ad-Hoc Workflows
- Example:

- 🚖 Request Meeting

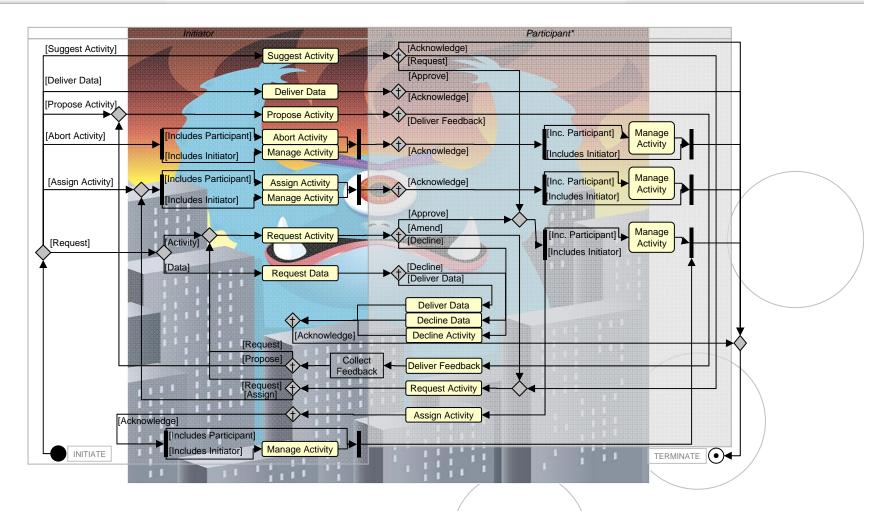
→ Megotiate Different Time

- → 🚖 Commit to the Meeting
- → Invite additional People
- Email Speech Act = Start/Continuation of a Workflow
- Workflow Artefacts Shared concepts e.g. Events, Tasks, People, Projects...
- Artefacts created *within* Email need to be exported and shared between different SSD's



## Modelling Ad-hoc Email Workflows

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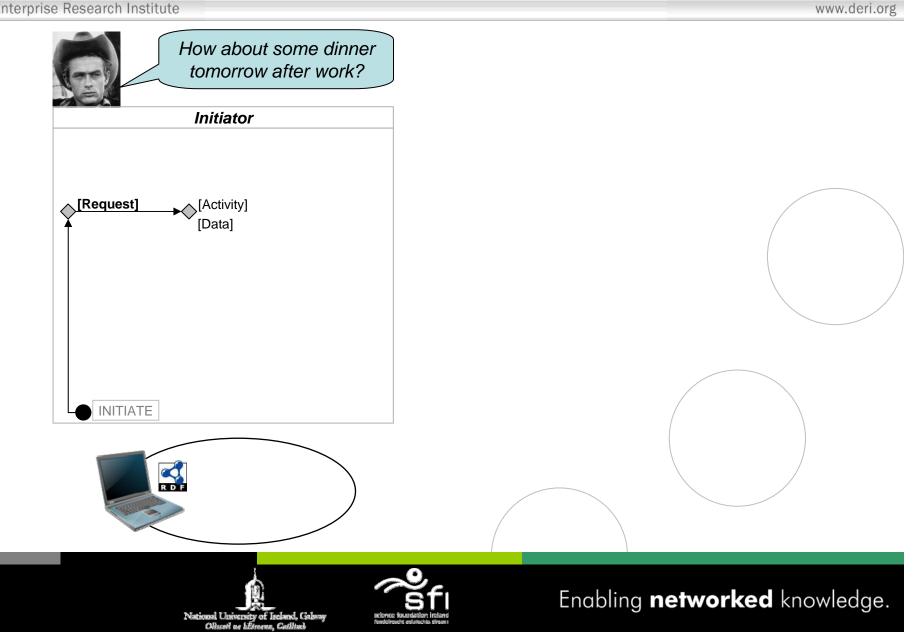






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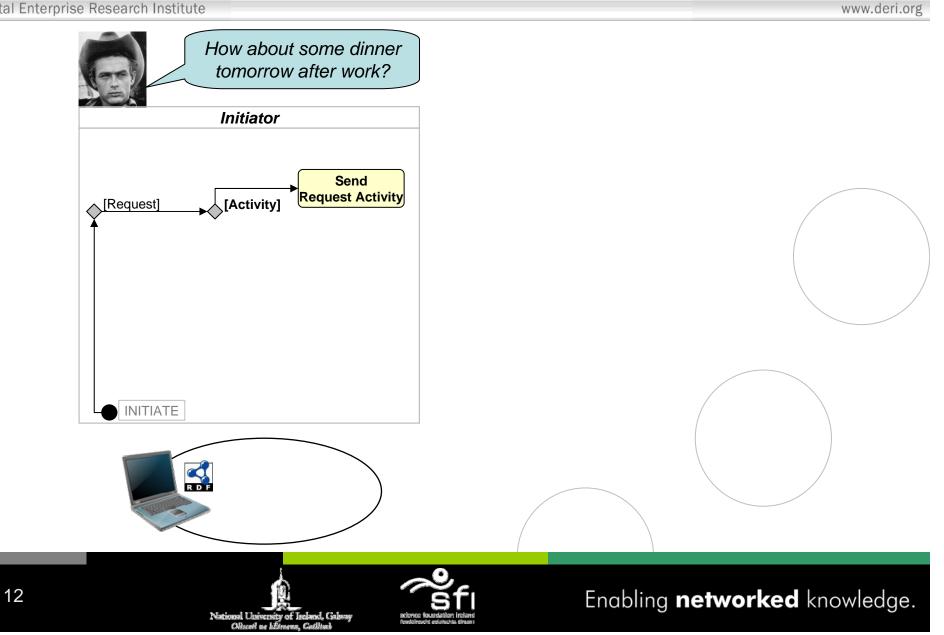
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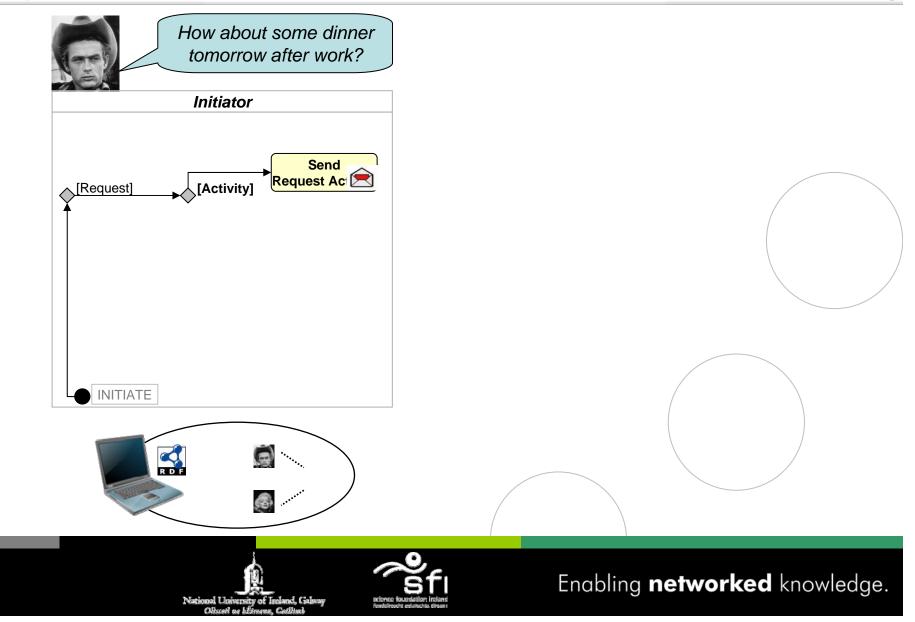




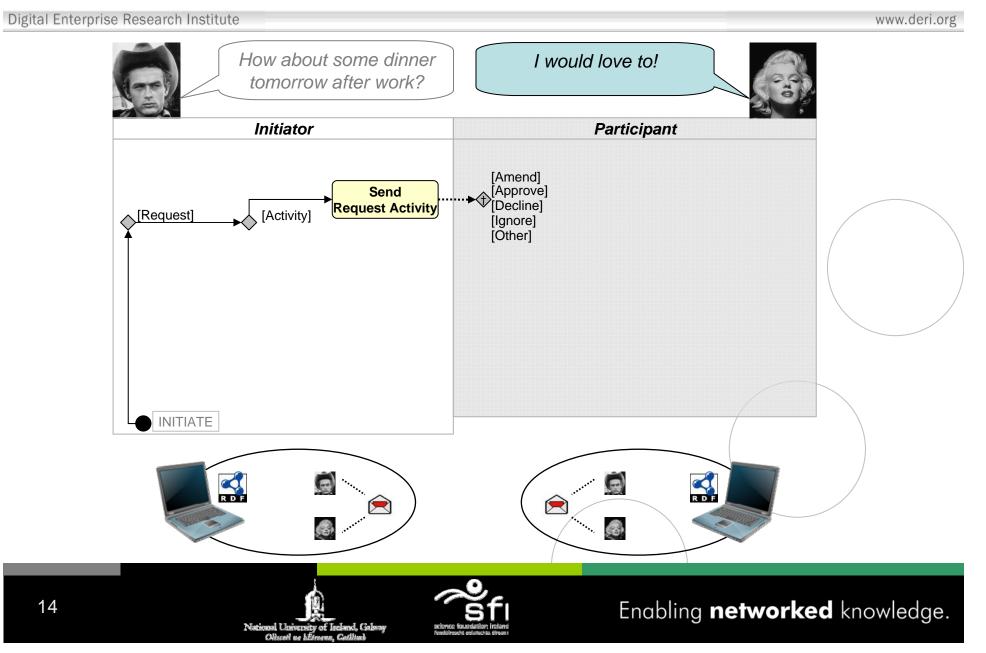
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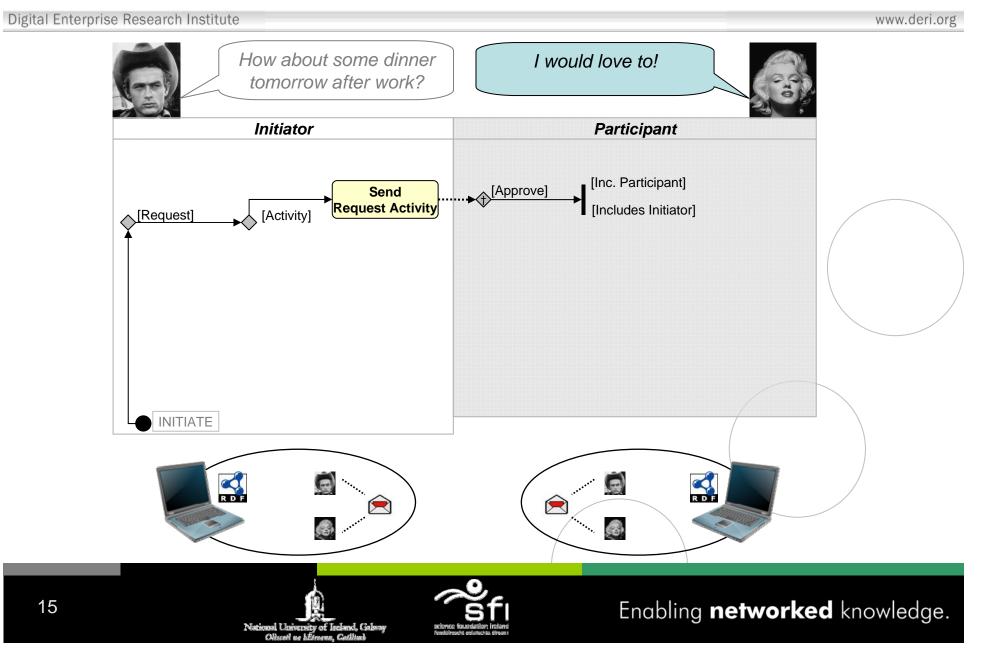
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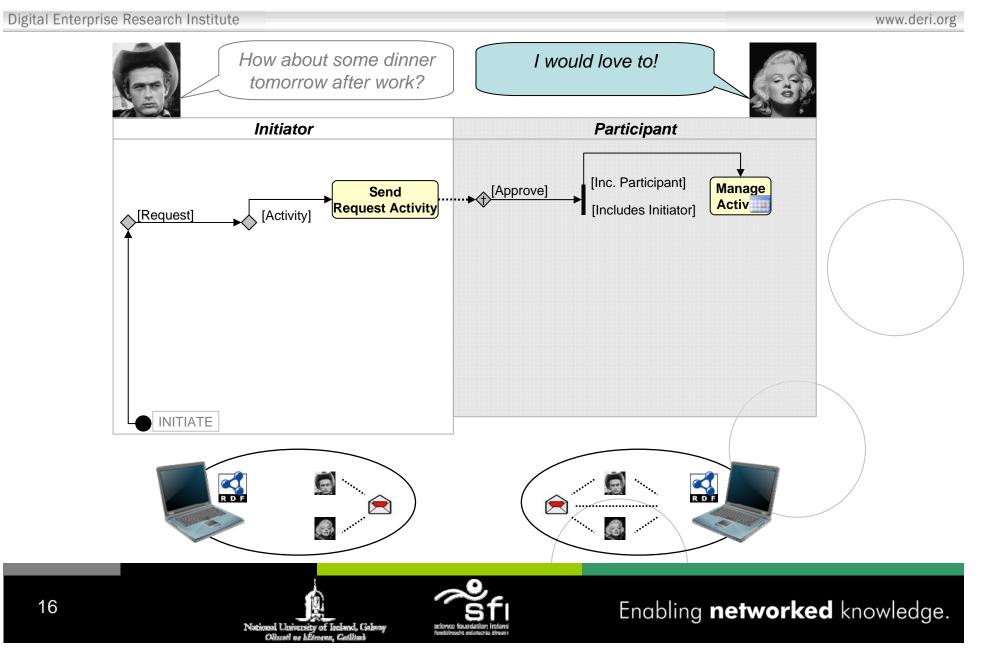




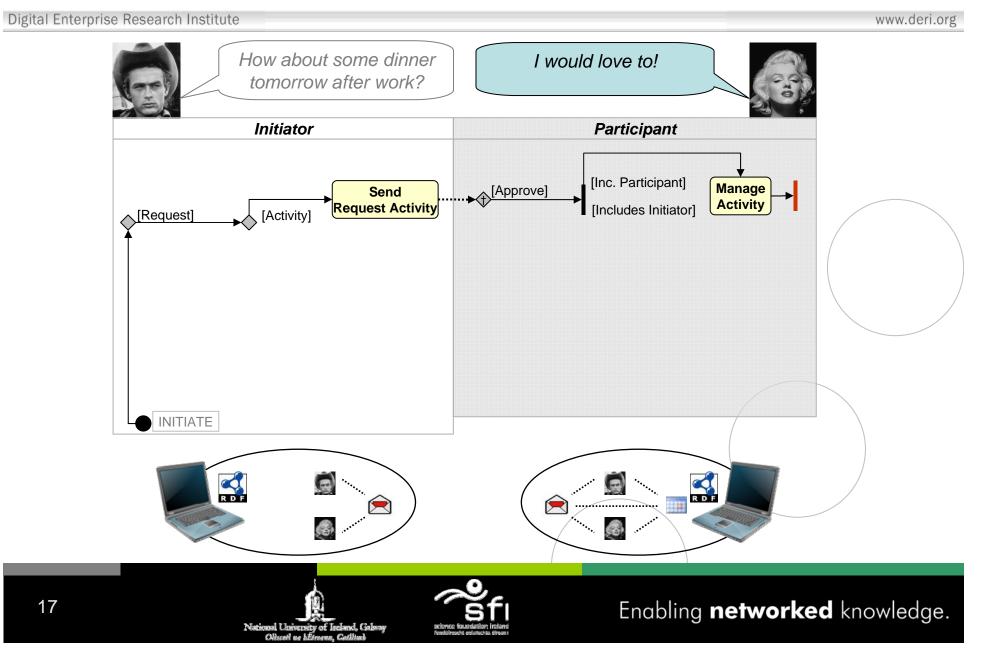




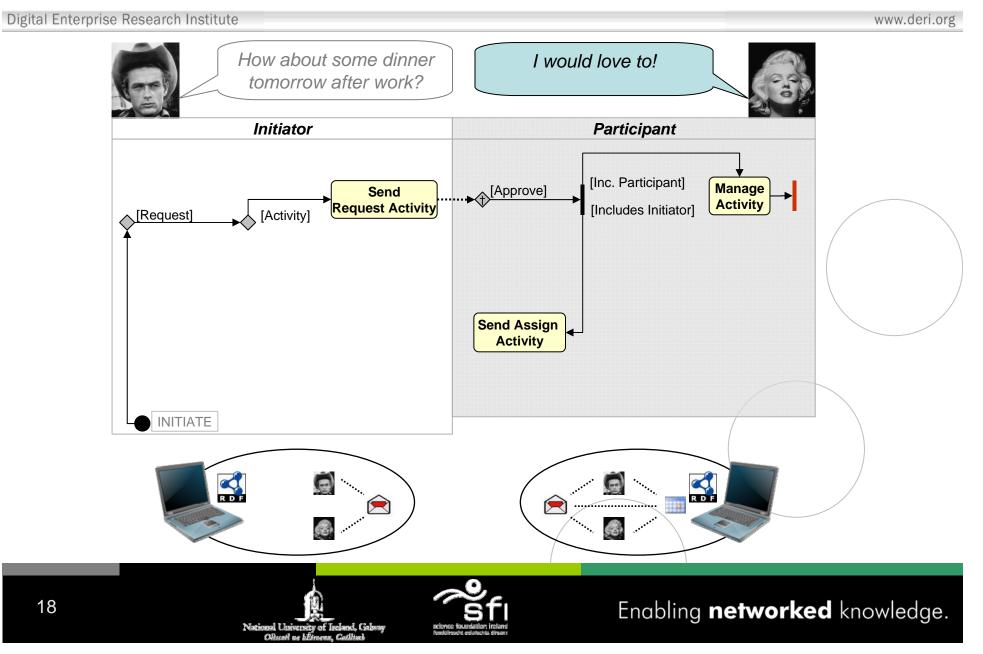




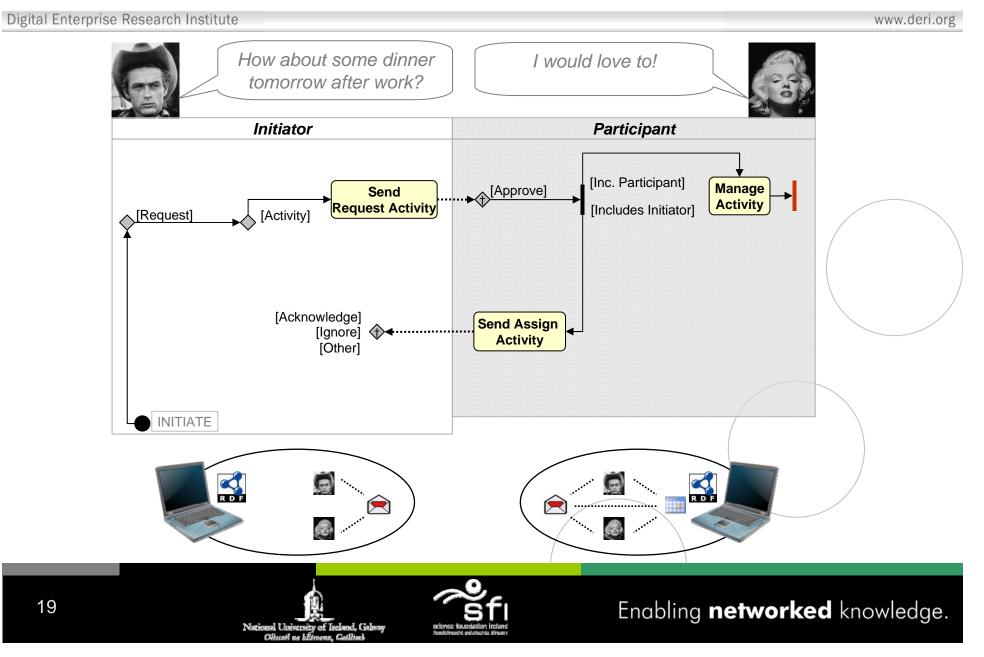




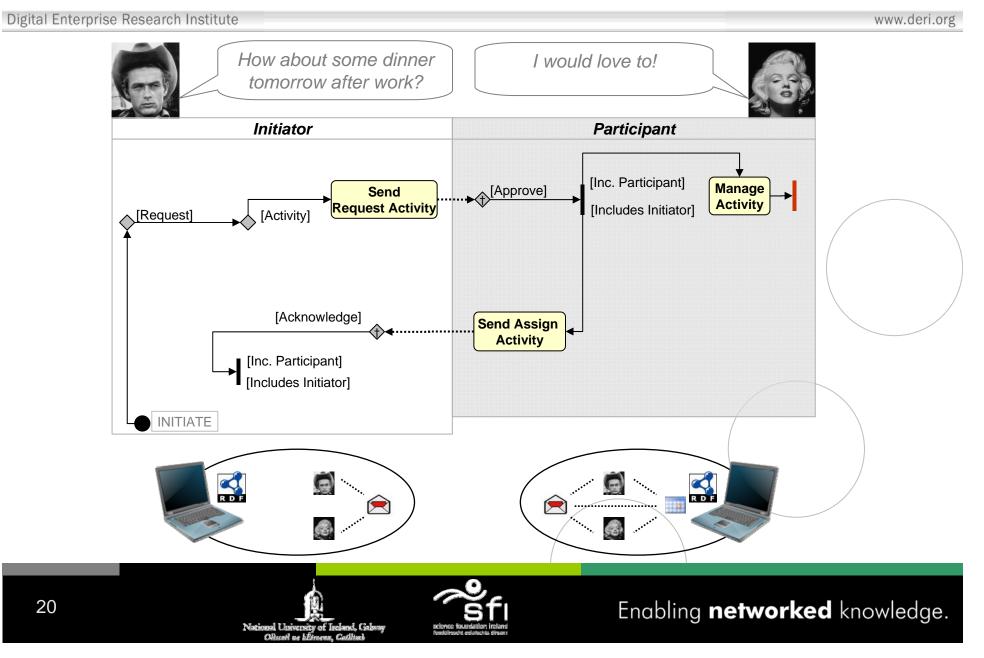




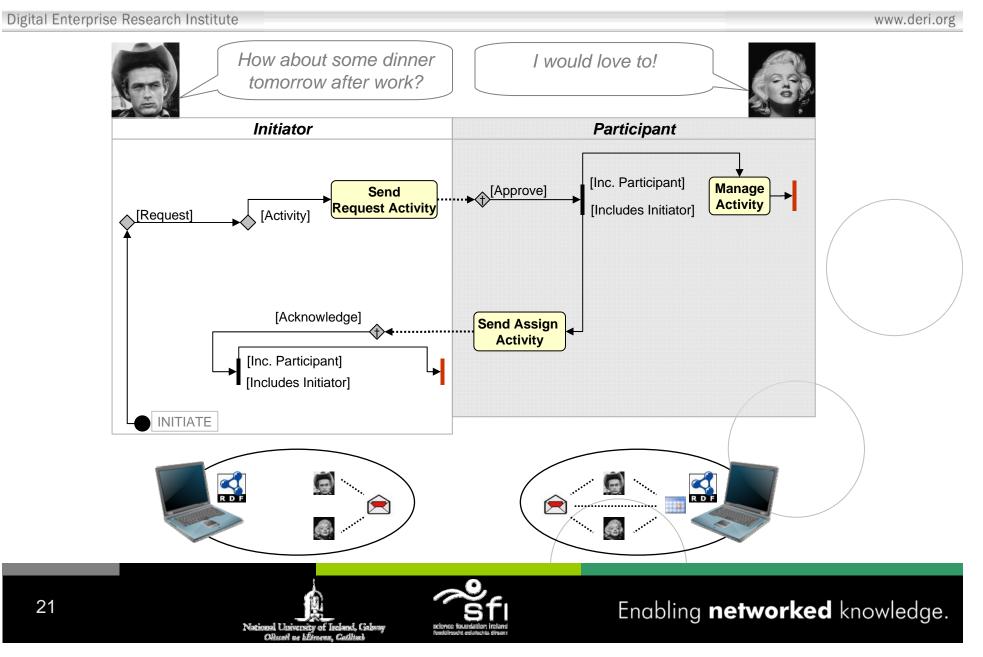




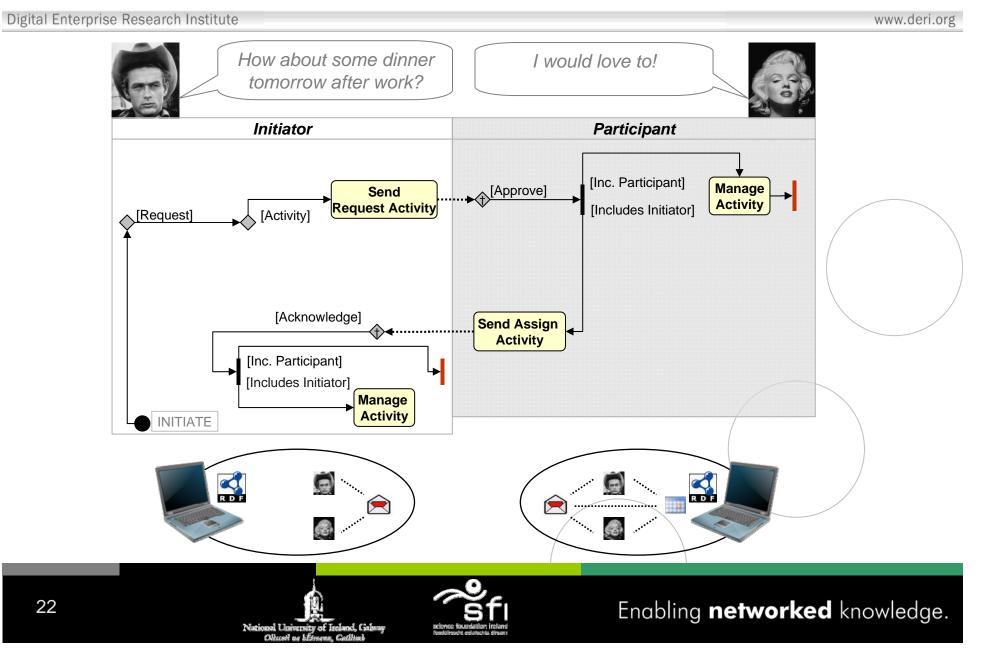




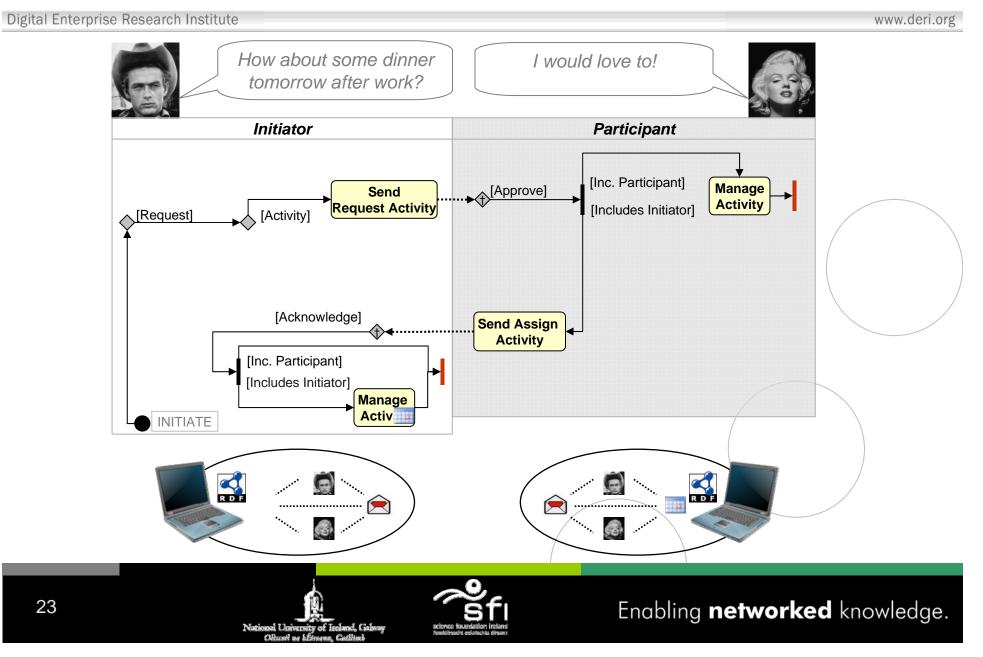




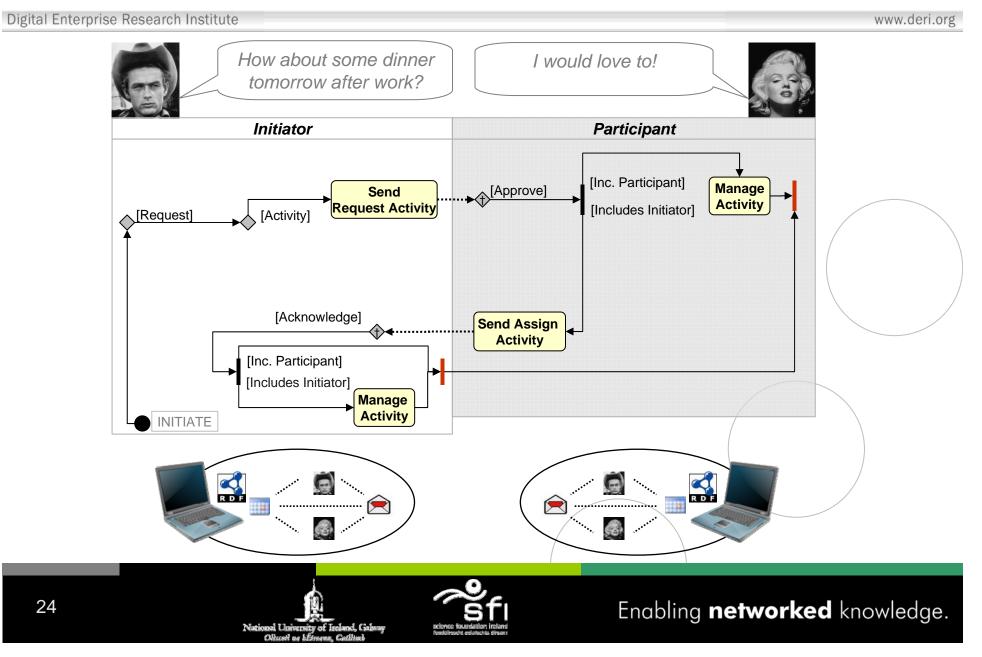




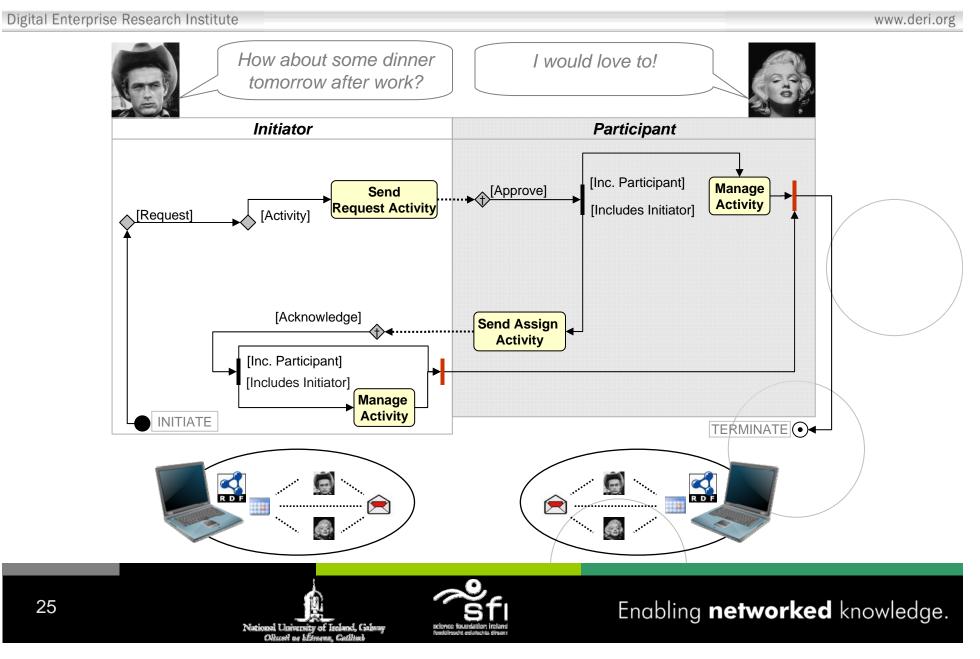




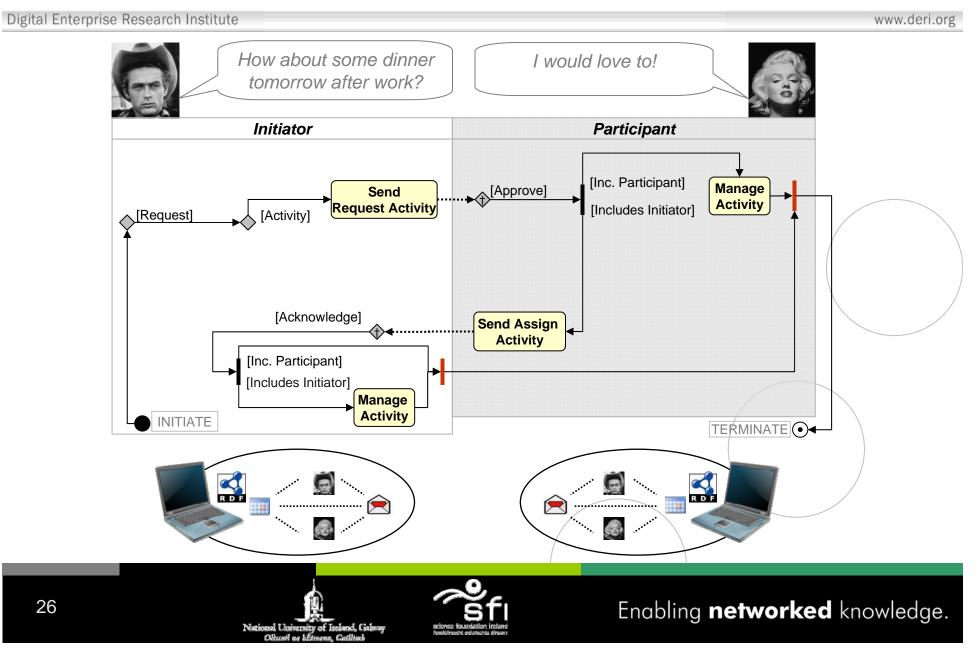




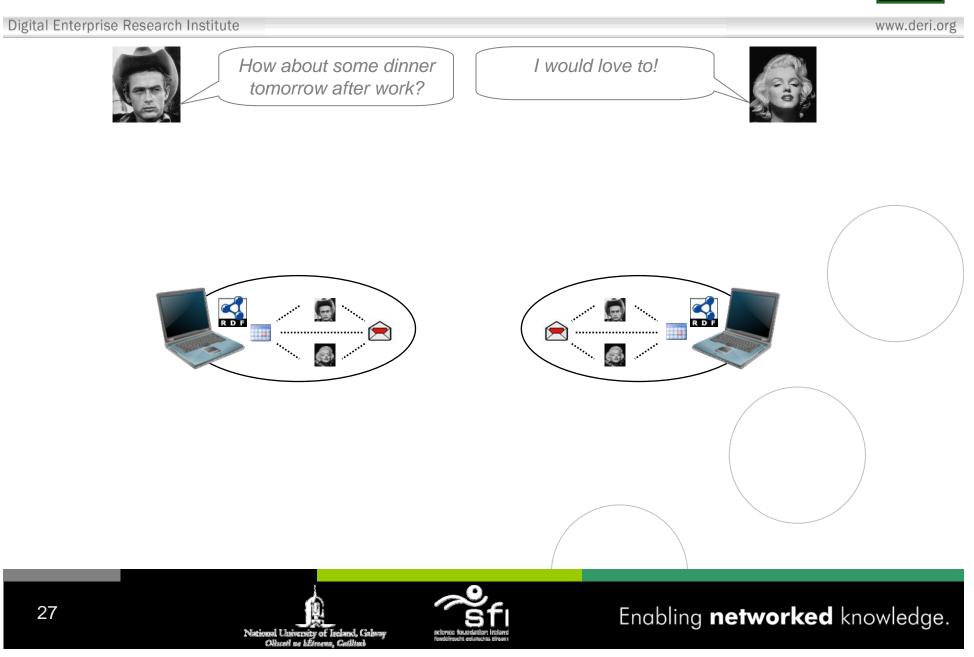










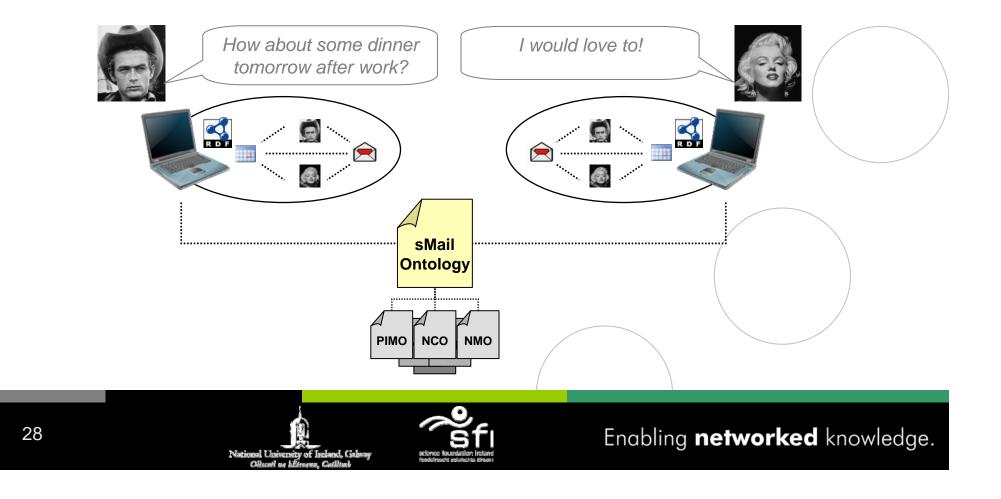






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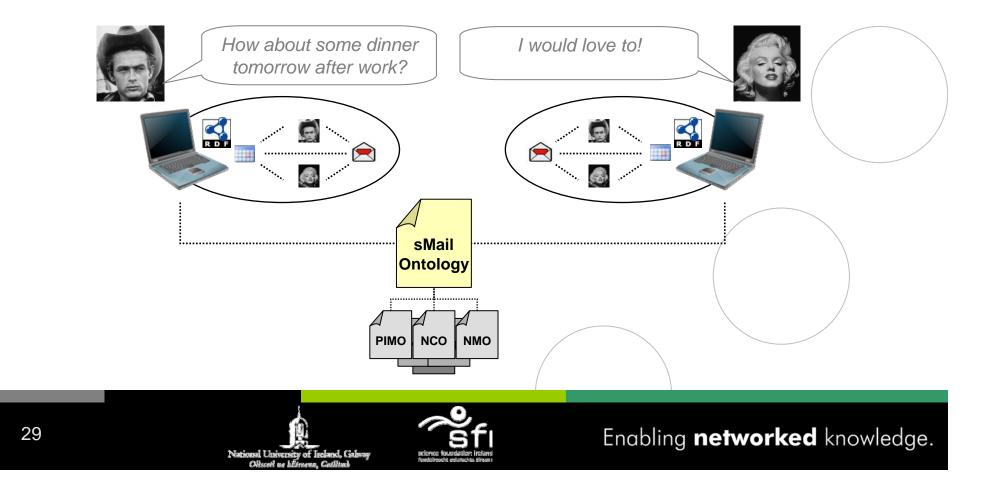
#### • Knowledge Integration *Within* the Personal Semantic Desktop







- Knowledge Integration Within the Personal Semantic Desktop
- Data Unification Among the Social Semantic Desktops



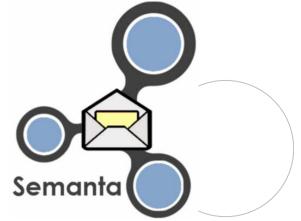
## Semanta

Applications



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- Email Tracking
- Email Classification
- Email Retrieval
- Personal Information Management
- ✤ Email ← → Desktop Knowledge Integration









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#### • Semi-automatic Annotation





• Email Flagging

Inbox	(					
! □ ⊠,	0 From	Subject	Received V	Size	8	^
2	dean, james	Certificates	Wed 28/11/2007 13:17	8 KB	8	
	monroe, marilyn	Re: GA Meeting	Fri 23/11/2007 18:31	4 KB	8	
	monroe, marilyn	GA Meeting	Fri 23/11/2007 18:30	6 KB	8	





#### Semanta



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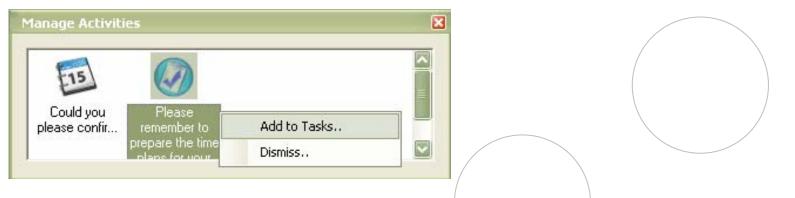
• Support for Email Action Items (Annotations)

Marilyn,		
[Could you p	olease confirm your availability for a mee	ting today week at 11a
>>> [Yes]	think that's the only realistic date given	other commitments.
	mber to prepare the time plans for your	
manting	Acknowledge Personal Task 📐	
meeting.	······································	
Thanks,	Ignore	



Enabling **networked** knowledge.

• Exporting Email Artefacts





#### **Future Work**



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- Extending domain of application to other *Electronic Communication Media* (e.g. Instant Messaging)
- Extending Features e.g. Social Relationships
- Combining our technology with related and relevant work (e.g. GTD - Getting Things Done)
- Evaluation of Semanta's User Interface





## Conclusion



- The Social aspect of SSD depends on Communication
- Email's *flexibility* is also the source of *Email Overload*
- Semantic Email

