Hybrid Service Provision Model for Mobile Users: Prospects for the DYNAMOS Project

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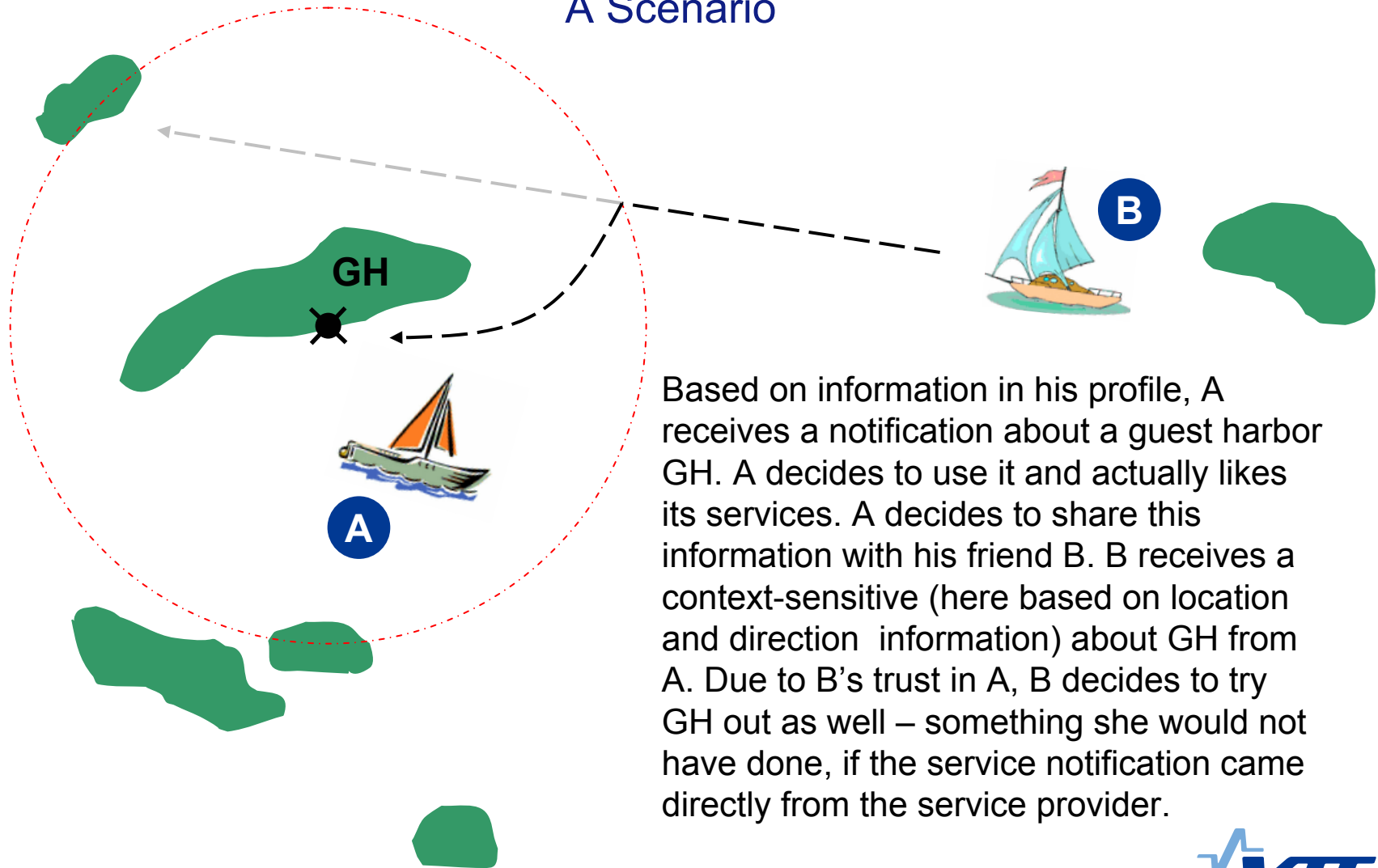
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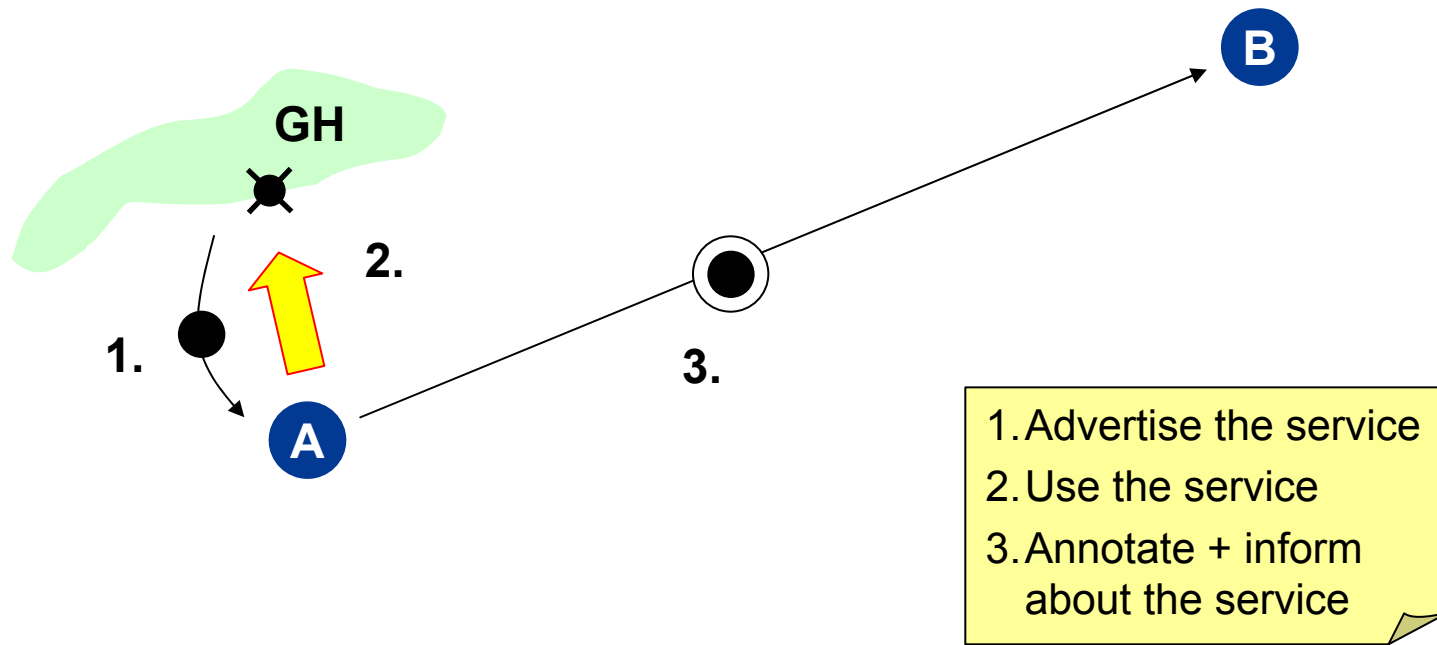STeP 2004, Web Intelligence Symposium
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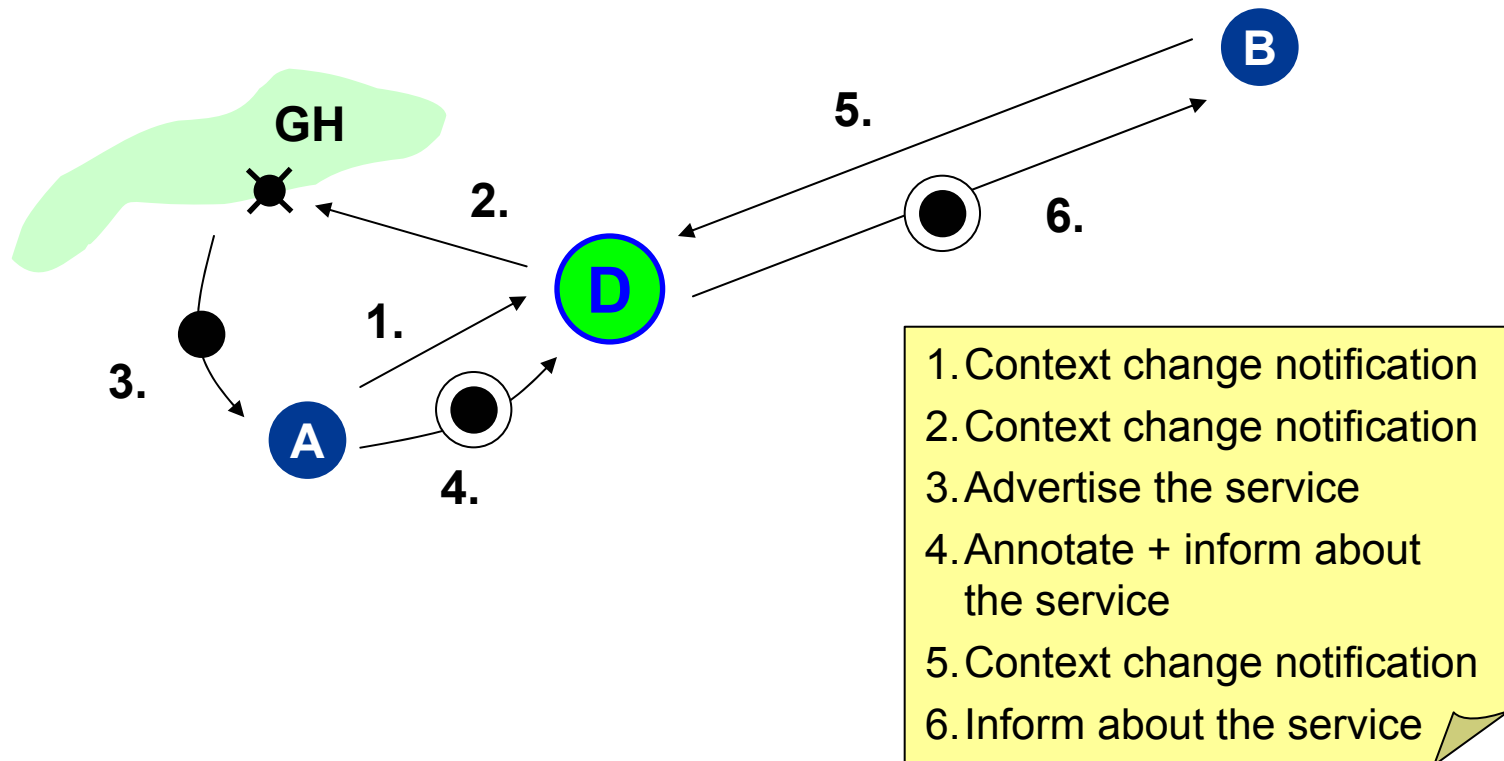
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A Scenario

GH

B

A

Based on information in his profile, A receives a notification about a guest harbor GH. A decides to use it and actually likes its services. A decides to share this information with his friend B. B receives a context-sensitive (here based on location and direction information) about GH from A. Due to B's trust in A, B decides to try GH out as well – something she would not have done, if the service notification came directly from the service provider.

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Scenario (contd.)

GH

1. **2.** **3.**

A

B

1. Advertise the service
2. Use the service
3. Annotate + inform about the service

Scenario (contd.)

1. Context change notification
2. Context change notification
3. Advertise the service
4. Annotate + inform about the service
5. Context change notification
6. Inform about the service

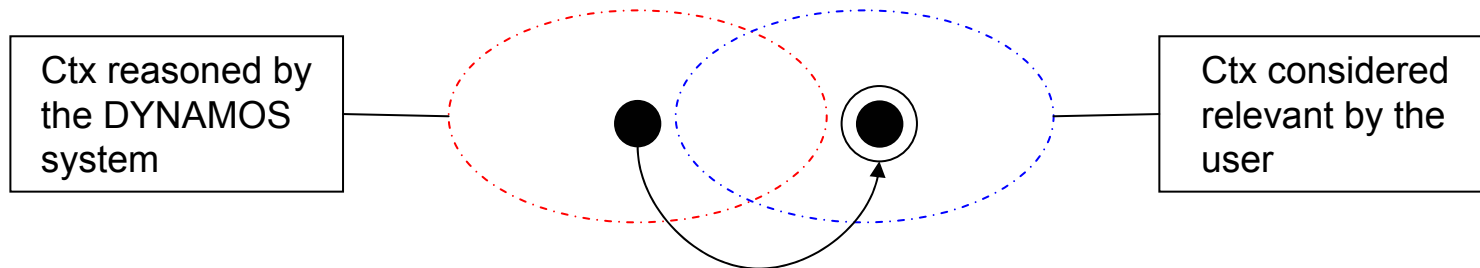3.9.2004

Service Annotations

- Service annotations in DYNAMOS refer essentially to comments and other material produced by the **users**
    - (typically service annotations refer to something produced either by the service provider or by the directory service – in the scope of DYNAMOS they are called service descriptions)
- Service descriptions come from service providers, and point to services
- Service annotations come from users, and point to service descriptions
- The publicity level of service annotations can vary from personal to public (avoid "DoS attacks", though)
- Multiple annotations, annotation threads, "hot topics"
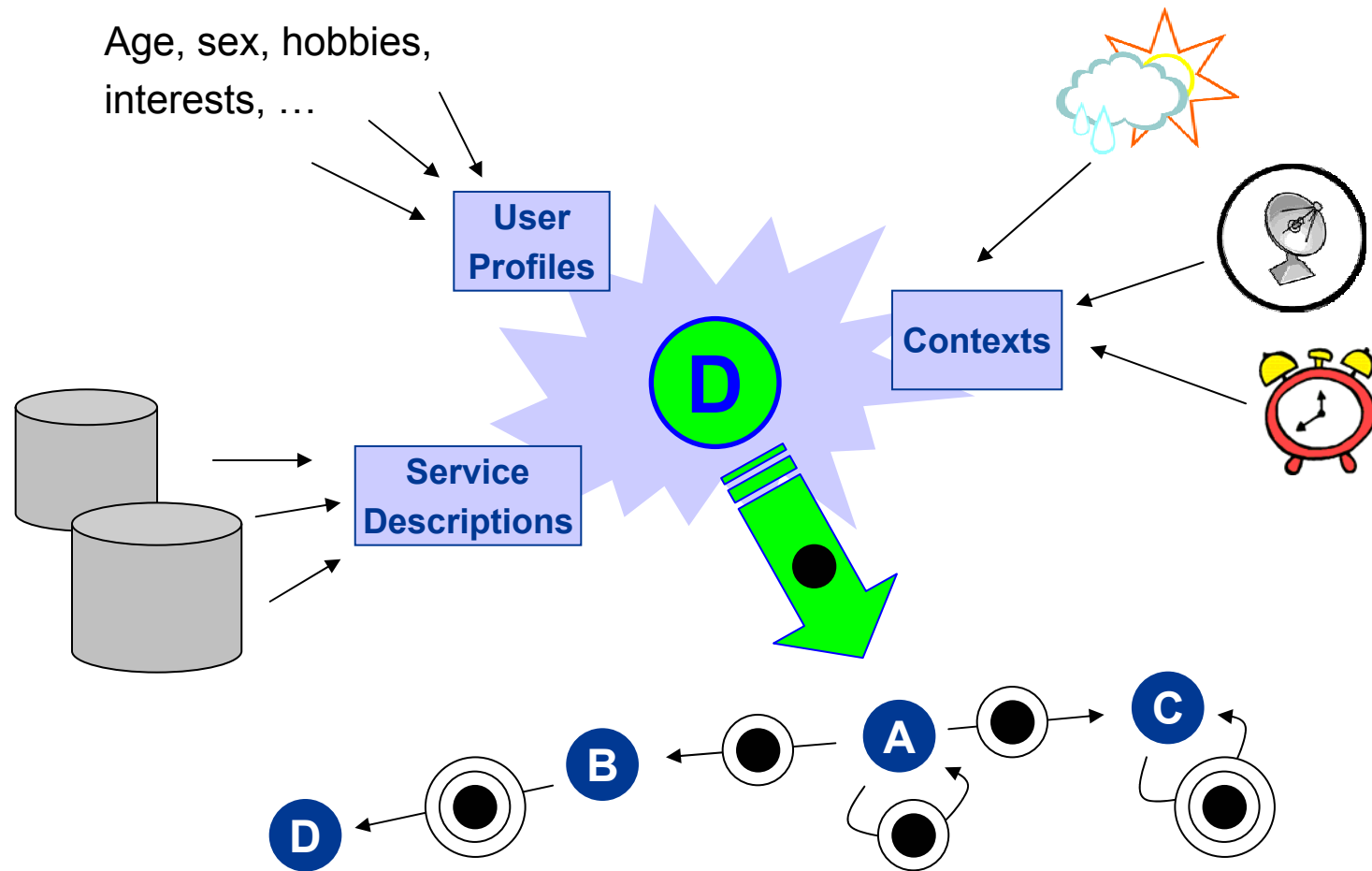
Service Annotations (contd.)

- *Why*? Often people know something of themselves and people close to them (friends, colleagues, etc.) that is **out of reach** to any information system
- *What*? This something is what we call **implicit profile data**
- *Why (2)*? Sometimes users **trust** people they know more than experts or recommendation systems
- Then again, there can be some information found in the profiles out of reach to other people (and to self in many contexts!)

→ **Hybrid** service provision model consisting of both B2C and C2C functionalities

Service Annotations (contd.)

- Enabling service annotating facilitates users in recognizing information that is relevant to them and possibly also to other people they know – useful (through feedback) for service providers as well!
- Accessing updated vs. original content via annotated descriptions
- Differentiate between service annotations and original descriptions
- Annotations, like original service descriptions, are context-specific
    - However, not necessarily in same contexts

Ctx reasoned by the DYNAMOS system		Ctx considered relevant by the user

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Context-aware Service Provision

Age, sex, hobbies, interests, …

User Profiles

Contexts

D

Service Descriptions

A B C D

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Project Characteristics

- Potential context information to be investigated: location, direction, time, social context, mood, weather, …
- Semantic Web and agent technologies for describing services, contexts, and user profiles + reasoning about them
- Exploiting open standards and recommendations + producing open source software
- Ethnographic research for finding out user requirements
- User trial for testing the developed prototype (likely in summer 2006)
- Project participants: VTT, HIIT, TEKES (Fenix), ICT Turku, Suunto, TeliaSonera

Thank you!

- Questions?

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    - http://www.vtt.fi/tte/proj/dynamos/

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