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CONSTRUCTING A GLOBAL SOCIAL SERVICE NETWORK FOR BETTER QUALITY OF WEB SERVICE DISCOVERY

[1]R.Suganya M.Phil., [2]Mrs.V.Parameswari M.C.A, M,Phil.,

[1]Research Scholar, Department of Computer Science, Bharathiyar Arts and Science College for Women's, Deviyakurichi, Salem.

[2]Assistant Professor, Department of Computer Science, Bharathiyar Arts and Science College for Women's, Deviyakurichi, Salem.

Abstract

Web services have had an amazing impact on the online for supporting a distributed service-based economy on a worldwide scale. However, despite the outstanding progress, their uptake on an online scale has been considerably but at first anticipated. The isolation of services and also the lack of social relationships among connected services are known as reasons for the poor uptake. During this paper, we tend to propose connecting the isolated service islands into a worldwide web work network to boost the services' sociableness on a worldwide scale. First, we tend to propose coupled social service-specific principles supported coupled information principles for business enterprise services on the open net as coupled social services; then, we propose a brand new framework for constructing the world welfare work network following coupled social service-specific principles supported advanced network theories. Next, AN approach is projected to modify the exploitation of the world welfare work network, providing coupled Social Services as a Service.

1. INTRODUCTION

A Web service is a method of communications between two electronic devices over the World Wide Web. It is a software function provided at a network address over the web with the service always on as in the concept of utility computing.

The W3C defines a Web service as:

A software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine-processable format (specifically WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards.

The W3C also states:

We can identify two major classes of Web services:

- REST-compliant Web services, in which the primary purpose of the service is to manipulate XML representations of Web resources using a uniform set of stateless operations; and
- Arbitrary Web services, in which the service may expose an arbitrary set of operations.

Many organizations use multiple software systems for management. Different software systems often need to exchange data with each other, and a web service is a method of

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communication that allows two software systems to exchange this data over the internet. Most types of software can, however, interpret XML tags. Thus web services can use XML files for data exchange. Rules for communication between different systems need to be defined, such as:

- How one system can request data from another system
- Which specific parameters are needed in the data request
- What would be the structure of the data produced? Normally, data is exchanged in XML files, and the structure of the XML file is validated by an .xsd file.
- What error messages to display when a certain rule for communication is not observed, to make troubleshooting easier
- All of these rules for communication are defined in a file called WSDL (Web Services Description Language), which has the extension .wsdl.

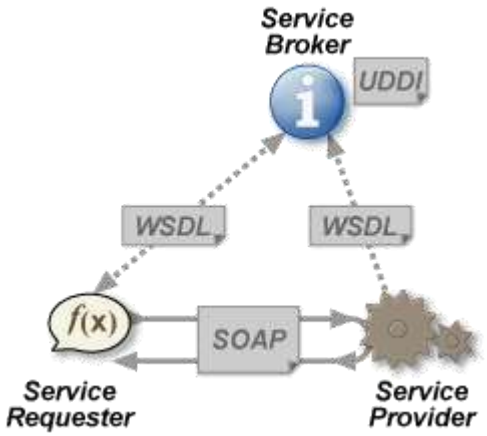


Figure: 1.1 Web services architecture

The service provider sends a WSDL file to UDDI. The service requester contacts UDDI to find out who is the provider for the data it needs, and then it contacts the service provider using the SOAP protocol. The service provider validates the

Automated tools can aid in the creation of a web service. For services using WSDL, it is possible to either automatically generate WSDL for existing classes (a bottom-up model) or to generate a class skeleton given existing WSDL (a top-down model).

2. RELATED WORK

A developer using a bottom-up model writes implementing classes first (in some programming language), and then uses a WSDL generating tool to expose methods from these classes as a web service. This is simpler to develop but may be harder to maintain if the original classes are subject to frequent change. A developer using a top-down model writes the WSDL document first and then uses a code generating tool to produce the class skeleton, to be completed as necessary. This model is generally considered more difficult but can produce cleaner designs and is generally more resistant to change. As long as the message formats between sender and receiver do not change, changes in the sender and receiver themselves do not affect the web service. The technique is also referred to as contract first since the WSDL (or contract between sender and receiver) is the starting point. Service-oriented architecture (**SOA**) is a software design and software architecture design pattern based on discrete pieces of software providing application functionality as services to other

applications. This is known as service-orientation. It is independent of any vendor, product or technology. A service is a self-contained unit of functionality, such as retrieving an online bank statement. Services can be combined by other software applications to provide the complete functionality of a large software application. SOA makes it easy for computers connected over a network to cooperate. Every computer can run an arbitrary number of services, and each service is built in a way that ensures that the service can exchange information with any other service in the network without human interaction and without the need to make changes to the underlying program itself.

Services are unassociated, loosely coupled units of functionality that are self-contained. Each service implements one action, such as submitting an online application for an account, retrieving an online bank statement or modifying an online booking or airline ticket order. Within a SOA, services use defined protocols that describe how services pass and parse messages using description metadata, which in sufficient details describes not only the characteristics of these services, but also the data that drives them. Programmers have made extensive use of XML in SOA to structure data that they wrap in a nearly exhaustive description-container. Analogously, the Web Services Description Language (WSDL) typically describes the services themselves, while the Simple Object Access Protocol (SOAP) describes the communications protocols. SOA depends on data and services that are described by metadata that should meet the following two criteria:

1. The metadata should be provided in a form that software systems can use to configure dynamically by discovery and incorporation of defined services, and also to maintain coherence and integrity. For example, metadata could be used by other applications, like a catalogue, to perform auto discovery of services without modifying the functional contract of a service.
2. The metadata should be provided in a form that system designers can understand and manage with a reasonable expenditure of cost and effort.

The purpose of SOA is to allow users to combine together fairly large chunks of functionality to form ad hoc applications built almost entirely from existing software services. The larger the chunks, the fewer the interfaces required to implement any given set of functionality; however, very large chunks of functionality may not prove sufficiently granular for easy reuse. Each interface brings with it some amount of processing overhead, so there is a performance consideration in choosing the granularity of services.

SOA as an architecture relies on service-orientation as its fundamental design principle. If a service presents a simple interface that abstracts away its underlying complexity, then users can access independent services without knowledge of the service's platform implementation.

3. SYSTEM ANALYSIS

Existing System

Web services were expected to have a tremendous impact on the Web, as a potential solution for supporting a distributed service-based economy on a global scale. First, all the approaches based on current service descriptions, such as WSDL, Web APIs or Ontology Web Language for Services (OWL-S), only consider services as isolated functional islands with no links to related services: unfortunately, this hampers service discovery and composition. Nowadays, services published in UDDI or on the Web based on current service description approaches know only about themselves, but not about the peers that they would like to work with in composition or that they would compete

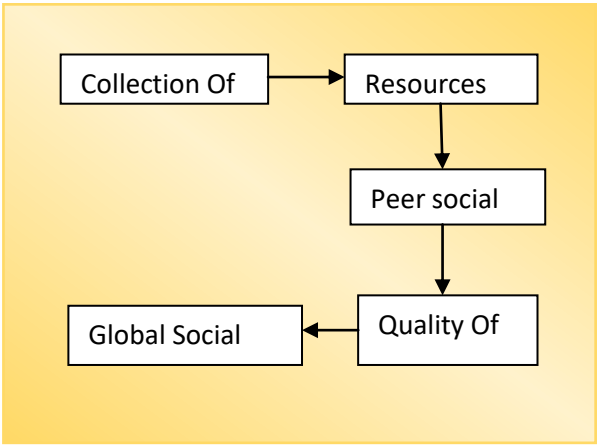
against for service selection . These isolated service islands mean that service discovery is confronted with the following issues. One of them is that most approaches to service discovery lack consideration of interactions with the service consumers, so the usability threshold for service consumers is still high. Service consumers cannot discover services by following links that interest them, as they do when exploring Web pages. Another issue is that in most cases, service consumers are not limited to using a single service, but want to locate multiple services that can work together. However, guiding service consumers to discover services, starting from a service at hand and extending to peer services, which can be combined into more complex functions, is still a challenging issue because current services are isolated. Second, services are considered only in terms of their own functional and nonfunctional properties; and the service's social activities, defined as engaging in significant social interaction with peer services via network models, are ignored. Web services are intended to be composed with related services in mind, and their functionality and non-functionality are interdependent, controlling services' social behavior .

Demerits

- Lack of consideration of interactions.
- Usability threshold value is high.
- Need to locate a multiple services for a single service

Proposed System:

In order to overcome those limitations, drive an innovation from service islands to a global social service network to support services social activities. Linked data technology provides the benefits of machine understandable data from the Web and improved data discovery by using links among data items. The semantic annotation is done using a lightweight ontology so that economic and efficient annotation and deployment of linked data are enabled. First, Linked Social Service-specific principles based on linked data principles has been proposed for publishing isolated services as linked social services vice on the open web. A new platform has been proposed for constructing global social service network to connect isolated service islands for supporting services social activities. An effective service discovery approach called link as-you-go has been proposed to enable exploring service -to- service based on global social service network.



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4. SYSTEM MODULES

Modules

* Loading Dataset.
* Compute Properties .
* Form a Peer social link.
* Compute Quality of a link.
* Global Social Service network.

Loading Dataset

A data set is a collection of data, it lists values for each of the variables, such as height and weight of an object. The query used to generate a particular data set from the selected connection or flat file profile. You can create multiple data set definitions for the same profile in order to generate different data set instances. To improve classification accuracy, insignificant parameters and patient data could be deleted from the data set. The schema of a Data Set can be defined programmatically, created by the Fill or Fill Schema methods of a Data Adapter, or loaded from an XML document. To load Data Set schema information from an XML document, you can use either the Read Xml Schema or the Infer Xml Schema method of the Data Set. Read Xml Schema allows you to load or infer Data Set schema information from the document containing XML Schema definition language (XSD) schema, or an XML document with inline XML Schema. Infer Xml Schema allows you to infer the schema from the XML document while ignoring certain XML namespaces that you specify.

Compute Properties.

To connect distributed services into a global social service network, social links are formed between isolated services. However, rather than simply connecting services, we use the pattern of social link to make typed statements that link arbitrary services. Here we define the pattern of social link that represents the functional relationships between resource service and target services according to service data correlations, which are data mappings between the input/output attributes of services.

Form a Peer social link.

To make typed statements to link peer services that can be worked together for service compositions, Peer social link is proposed to connect services that can be combined to provide a more complex service. Peer social link can be illustrated by the following rules, including sequential, parallel and conditional routing.

Global Social service Network:

To construct a global social service network for better service discovery, we must consider four generic aspects of the global social service network. First is a growth aspect. A global social service network is open, formed by the continual addition of new services; thus, the number of vertices, N, increases throughout the lifetime of the network, just as the www grows exponentially in time by the addition of new Web pages and the research literature constantly grows because of the publication of new papers. Second is a Preferential Service Connectivity aspect. In a global social service network,

the probability that two vertices are connected is not random and uniform, but exhibits Preferential Service Connectivity: there is a higher probability of linking to a vertex that already has a large number of connections. Third is a competitive aspect, as each node has an intrinsic ability to compete for edges at the expense of other nodes

CONCLUSION

To improve the quality of service discovery, propose a methodology to drive an innovation from isolated service islands to linked social service. Thus, services can link to and be linked by related services functionality on the web into a global social service network, enabling explorations from service to service.

FUTURE WORK:

In this model, we can analyze the limitation such that could not involve user's feedback such as positive and negative feedback. Hence, we can improve the quality of the link in future.

REFERENCE

1. R. Cai, C. Zhang, C. Wang, L. Zhang, and W.-Y. Ma., "Musicsense:Contextual Music Recommendation Using Emotional Allocation,"Proc. 15th Int'l Conf. Multimedia, pp. 553-556, 2007
2. C. Strapparava and R. Mihalcea, "Semeval-2007 Task 14: AffectiveText," Proc. Fourth Int'l Workshop Semantic Evaluations (SemEval'07), pp. 70-74, 2007.
3. C. Yang, K.H.-Y. Lin, and H.-H. Chen, "Emotion ClassificationUsing Web Blog Corpora," Proc. IEEE/WIC/ACM Int'l Conf. WebIntelligence (WI '07), pp. 275-278, 2007.
4. C. Strapparava and A. Valitutti, "Wordnet-Affect: An AffectiveExtension of Wordnet," Proc. Fourth Int'l Conf. Language Resourcesand Evaluation (LREC '04), 2004.
5. S. Morinaga, K. Yamanishi, K. Tateishi, and T. Fuku-shinna,"Mining Product Reputations on the Web," Proc. Eighth ACMSIGKDDInt'l Conf. Knowledge Discovery and Data Mining (SIGKDD'02), pp. 341-349, 2002.