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A One Stop Solution Platform for various Services: Helping Tools

Chaitanya Shimpi[1], Shivam Giri[2], Saifali Awati[3], Rucha Bhosale[4], Prof. Vidya Waykule[5]
Department of Computer Engineering, AISSMS COE, Savitribai Phule University, Pune – 411001

Abstract: ***The service-based economy supports too much of the global economy for us to ignore its importance. Any tool or service's main goal is to help the user by solving a problem or simplifying a certain procedure. Numerous services are available to address problems ranging from extremely small to artificial intelligence levels. Getting the precise information or completing a certain activity is an essential component of any business. The key resource and initial step in locating any problem's answer is the internet. Using the internet is a common method to locate services that meet a certain need. To put it mildly, there are many different services and service providers on the internet. There are often alternatives to problems, as well as theories or techniques that may be used. But sorting through all the available alternatives to pick the best one is surely a difficult undertaking. It might be quite difficult to select—or seek for—the best tool. Finding a few answers does not always indicate that they are the best option for the issue at hand. Additionally, the services are not personalised. Every issue or circumstance is distinct. As the name implies, helping.tools is a one-stop shop for assistance when choosing a tool, service, or service provider. It is a platform that offers a variety of tools and services in one place. Users can choose the services they need from a number of categories and explore the platform easily. The services' different types range a variety of industries, including daily utility, blockchain, artificial intelligence, and other fields. This is accomplished by gathering a variety of products and services with enhanced functionality under one roof and making them accessible according to various sectors. Helping.tools has something for everyone. With a user-friendly interfacethe platform ensures that users get the best possible services at an single stop. In short, Helping.tools is a one-stop solution for anyone looking to access quality services tailored to their specific needs.***

Helping Tools is the platform where people can check the different tools, customize them and play with them to solve their issue as per requirement. There can be many different categories that can be found in the platform which varies from Art and Design, Books and Reference, Development, Devices and IoT, Education, Entertainment, Finance, Games, Health and Fitness, Music and Audio, News and Weather Personalisation, Photo and Video, Productivity, Science, Security, Server and Cloud, Social and Utilities. Every category that exists in this platform will have different tools/services that can be used by the consumer/user/customer for their problem to get solved from a single platform, namely Helping Tools. With the survey taken by our team, there were many occurrences where we found people where facing trouble to find the best tool, and even if they find it, the another tool they want to use it required different search. Hence, by looking forward to this problem, our team came up with the idea to create a one stop platform for the users to find the tool as per their requirement on one platform. If not found, they can send the request or can pass the issue they are facing, so that our team or open-source community can work on it to get the solution pushed on the main production environment of the platform.

Helping Tools will be an open-source project which will be available on the GitHub, but will have some restriction with how much code they can access. Via GitHub, they can create the issue, where they can put the problem or the solution or the suggestion that can be useful for the users. If our team approves it, then the user can be assigned with the task to complete the issue or solve the issue. Their will be different tags that will be used in our project which will be under the Cratonik organization on GitHub. These tags will vary from level of project to category of the project.

After they push the pull request, our team will go through the project and will verify if the code is perfect as per our project standards and is it worth adding. If it passing all the checks then it will be approved and will be added to master branch, where one of our team member will make a require changes and will merge it to the main branch and will be published.

Apart from these, there is also one important addon feature we have included in our project. Here we have added a feature of Innovation Sector. Here any person or team can put the request to publish or add their innovative idea to our page. This section can be used by the innovators as well as investors and companies. For example, if a team from XYZ location, has a project idea or a startup idea, and want to represent it on the platform, or are looking for the investors. They will write a simple blog on the platform and can add the demo project link, project video link (if any) and the paper published link (if any).

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For the sample, we have created a published a MHCIE project on this project, which is created by the computer science students in 2015-16 in Diploma in Computer Engineering. It was an unique project which was never been published or pitched to any company or investors. So we have added it as the first project to be showcased on the platform.

Keywords: Services, Tools, Artificial Intelligence, Blockchain Technology, Machine Learning, Solution, Customizable, Open-source, Innovation, Startup Idea, Blog.

I. INTRODUCTION

A. Traditional Method

Finding an effective solution to complex problems isn't easy, but very necessary. Internet possesses the monopoly on being a reliant solution provider. Internet possesses the monopoly on being a reliant solution provider. The range of problems is vast, it may vary from simple calculations to crypto currency transactions. Users search for related tools on the internet to try and find an executable solution. They may find many that can be used, but it doesn't at all mean that they will get the best solution. If a user searches for a particular tool, the user is given a populated list of links that are said to solve the problem; but finding the best among them is like searching for a needle in a haystack, and indeed it is very time consuming. This method is proven to be less efficient as it shifts the focus from the problem at hand onto the comparison between the services and providers.

As per the survey done by our team, we saw that every person strives to get the best tool for the problem they are searching for. For getting the best tool, they search it on Google, and number of links or result is shown on the page, and the best one is ranked on first page. But it may not be the best one to solve our issue. The chances of this less, but another issue which comes in hands in hands with this problem is that the person will have to search for the tool every time, he/she will have to search or keep tab of every different tool from different websites. There is no platform, which enables users to have the problem get solved on the single platform.

This process, in which uses wants to solve the problem or want to use different tools at the same time or need different tools every time. After finding the problem, they need to find the tools or solution on Google. In this process Google uses its algorithm to show the best links that can solve the issue/problem of the user. And it is not always the case where it is best solution for the user or for the requirement of the issue/problem.

Looking on this this whole process, we can say that there are few issues that can be solved. Firstly, every tool/service is on different platform or is solved by different vendor, and for every service, there are 100s of vendors providing the same solution, but finding the best is the problem. Keeping the track of every best tool can be hectic task for the user.

B. Available Platform

There are a few platforms available where you can find a combination of multiple tools at a singular location, but those platforms only provide the tools encircling a particular topic. Such platforms have a central idea or topic and the tools revolve around it. Also, there aren't any platforms which allows the user to give feedbacks or to make suggestions, so as to a request a tool that can/should be added on the system or to inform about some errors that they may be facing while employing the tools or using the platform.

Every problem that exists has its unique blend of commonality and some personalized aspect. Users tend to get displeased when the solution or the platform that provides it lacks the same blend. Users are attracted towards stuff that has been customized using his/her own view. No platform allows the customization of the looks and feel of the platform or the tools deployed to be used by the user. Moreover, Users love to showcase anything with their name or customization on it.

There are a few platforms available where you can find a combination of multiple tools at a singular location. However, these platforms are often limited in scope and only provide tools that are related to a particular topic. For example, there are platforms that provide tools for writing, coding, or design. However, there is no platform that provides a wide variety of tools for a variety of tasks. I believe that there is a need for a platform that provides users with a wide variety of tools for a variety of tasks. This platform would be similar to the platforms that currently exist, but it would be more comprehensive and would allow users to give feedback and make suggestions. This would allow the platform to evolve and become more useful to users.

Here are some of the benefits of a platform that provides users with a wide variety of tools for a variety of tasks:

1) Users would be able to find the tools they need to complete their tasks.
2) Users would be able to save time by not having to search for different tools on different platforms.
3) Users would be able to get feedback and suggestions from other users on how to use the tools.
4) The platform would be able to evolve and become more useful to users over time.

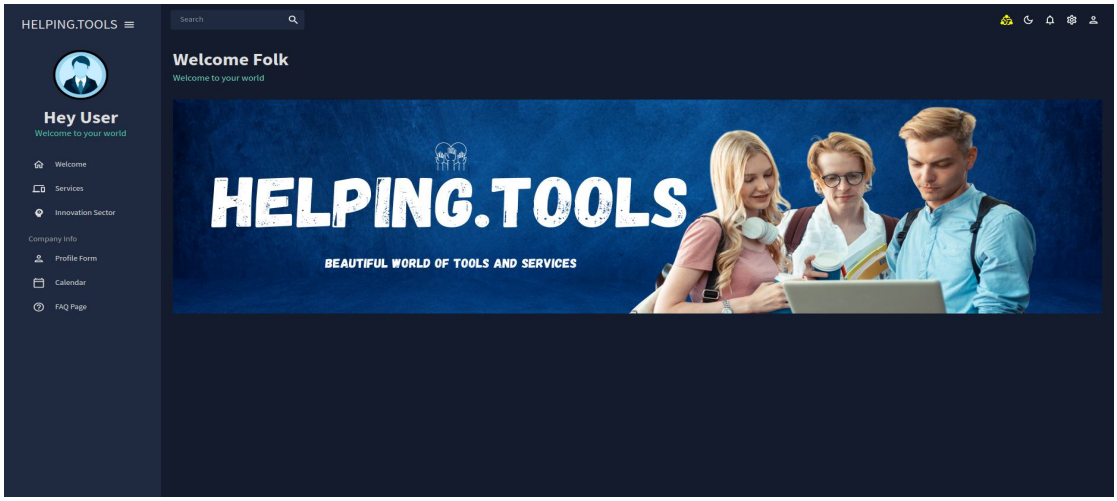
I believe that a platform that provides users with a wide variety of tools for a variety of tasks would be a valuable resource for users. It would allow users to find the tools they need to complete their tasks, save time, and get feedback and suggestions from other users. I hope that one day such a platform will be created.

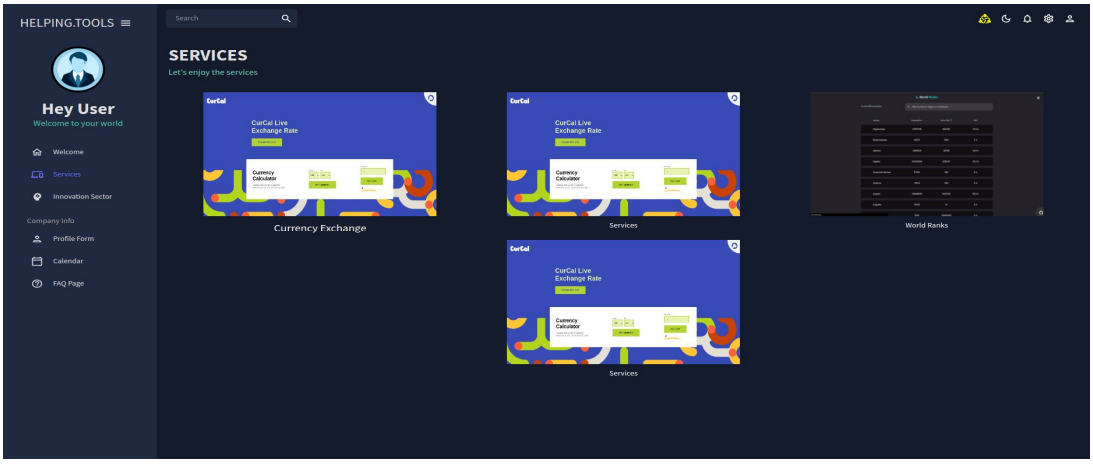
ILovePdf is one of the best examples. ILovePDF is a PDF tool that can edit, convert, compress, merge, split, rotate, unlock, and sign PDFs. You can use iLovePDF without having to create an account, and all your files are processed on secure servers. Some of its features include a PDF editor, PDF convertor, PDF compressor. PDF merge, PDF splitter, PDF rotater, PDF unlocker, and PDF singer. iLovePDF is a great tool for anyone who needs to work with PDFs . It is east to use and offers a variety of features that can help you edit, convert and manager your PDFs. iLovePDF is a free to use for most features that can help you edit, convert, manager your PDFs. iLovePDF uses secure servers to process your files, and your files are encrypted and deleted after 24 hours.

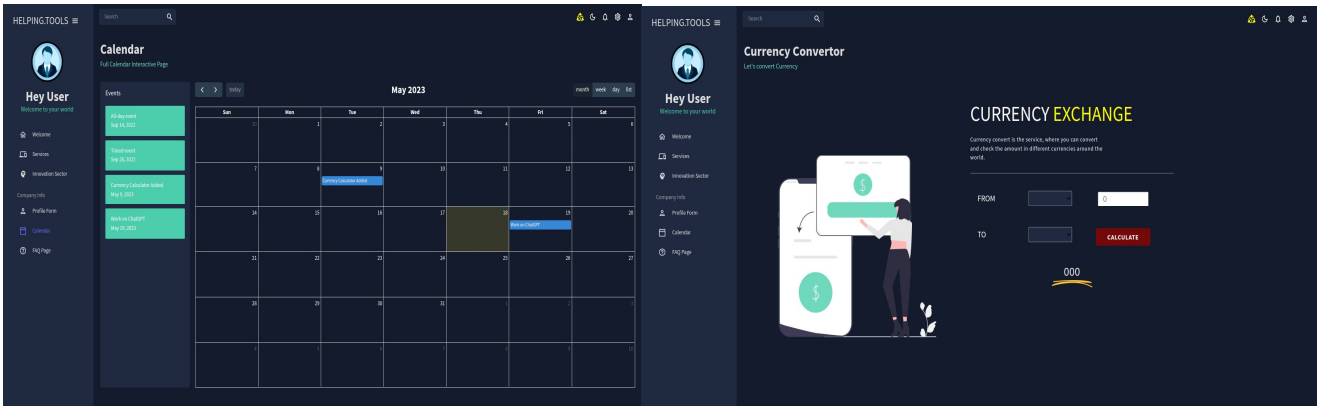
But this service only focus on working with documents, it's not a question about how perfect the tool is, the point is how user-friendly it is. As we know if we want to work with document/PDF, we can reliy on that platform. The only drawback is it only works with documents, it does not provide different tools and services beyond its scope.

C. Helping Tools Platform

This gives rise to the need for a platform which can provide each and every tool needed to a person in question. A platform that has already statistically compared various options and comprises of the perfect tools for the job being handled. A platform which is capable of hosting several tools and recommends them when prompted with a related issue. And furthermore, to ensure that every individual using this platform gets a personalized experience, this platform will be an open-source platform, one on which any developer can contribute to create a new tool. The team will regularly take updates, work on the feedback or suggestion for the tool given by the users of the platform, and aim to implement them to better the platform for everyone. This platform will not only cater to the need of providing customizations and a personalized feeling, but also allow users to share a self-owned link to disperse to the other users. They could also have their favourite tools added in it.







This platform allows users to find the services and tools they need to solve their problems. Helping Tools will handle and create every type of service or tool that is needed by the user. It is not possible to build every tool at once, so this will be a continuous process of building and implementing. Helping Tools allows users to give feedback or request for a tool to be added to the platform. Our team or any open-source contributor can work on the service and push it to the platform. After pushing, the user will be notified by our team and congratulated, so that the user can feel welcomed. In the future, we can also connect to a database of millions of services and tools available online, so that if our platform does not have the solution to the problem, then our platform can provide the solution already available online. Our platform will allow users to register and sign in to the platform so that they can add the tool or service to their favorites.

Helping Tools is a platform that allows users to find the services and tools they need to solve their problems. Helping Tools is a one-stop shop for all your needs, whether you are a student, a business owner, or a stay-at-home parent.

1) Helping Tools offers a wide variety of services and tools, including

- Art and Design: Helping Tools offers a variety of art and design tools, including graphic design software, photo editing software, and 3D modeling software.
- Books and Reference: Helping Tools offers a variety of books and reference resources, including e-books, audiobooks, and dictionaries.
- Development: Helping Tools offers a variety of development tools, including programming languages, IDEs, and debuggers.
- Devices and IoT: Helping Tools offers a variety of devices and IoT tools, including smart home devices, wearables, and sensors.
- Education: Helping Tools offers a variety of educational resources, including online courses, tutorials, and textbooks.
- Entertainment: Helping Tools offers a variety of entertainment resources, including movies, TV shows, music, and games.
- Finance: Helping Tools offers a variety of finance tools, including budgeting software, investment calculators, and retirement planning tools.
- Games: Helping Tools offers a variety of games, including casual games, strategy games, and action games.
- Health and Fitness: Helping Tools offers a variety of health and fitness tools, including fitness trackers, meal planners, and workout routines.
- Music and Audio: Helping Tools offers a variety of music and audio tools, including music players, audio editors, and synthesizers.
- News and Weather: Helping Tools offers a variety of news and weather resources, including news apps, weather apps, and traffic apps.
- Personalization: Helping Tools offers a variety of personalization tools, including themes, wallpapers, and fonts.
- Photo and Video: Helping Tools offers a variety of photo and video tools, including photo editing software, video editing software, and animation software.
- Productivity: Helping Tools offers a variety of productivity tools, including task managers, note-taking apps, and time tracking apps.
- Science: Helping Tools offers a variety of science tools, including calculators, simulators, and databases.
- Security: Helping Tools offers a variety of security tools, including antivirus software, firewalls, and password managers.

- Server and Cloud: Helping Tools offers a variety of server and cloud tools, including cloud storage, cloud computing, and virtualization.
- Social: Helping Tools offers a variety of social tools, including social media platforms, messaging apps, and video conferencing apps.
- Utilities: Helping Tools offers a variety of utilities, including file managers, compression tools, and disk cleaners.

Helping Tools is constantly adding new services and tools, so you can be sure to find what you need to solve your problems. Helping Tools is also committed to providing excellent customer service, so you can always get help when you need it.

2) Here are some additional benefits of using Helping Tools

- Save time: Helping Tools can help you save time by providing you with access to a wide range of services and tools.
- Get better results: Helping Tools can help you get better results by providing you with the tools you need to get the job done.
- Improve your productivity: Helping Tools can help you improve your productivity by providing you with the tools you need to get the job done.

If you are looking for a platform that can help you solve your problems, then Helping Tools is the perfect solution for you. Helping Tools is a one-stop shop for all your needs, and it is committed to providing excellent customer service.

3) Here are some tips for getting the most out of Helping Tools

- Create an account: Creating an account will allow you to save your favorite services and tools, and it will also allow you to receive notifications about new services and tools.
- Use the search bar: The search bar is a great way to find specific services and tools.
- Read reviews: Reading reviews can help you to learn more about different services and tools.
- Contact customer support: If you have any questions or problems, you can contact customer support.

Apart from these, there is also one important addon feature that we have included in our project. Here we have added a feature of the Innovation Sector. Here, any person or team can put in a request to publish or add their innovative idea to our page. This section can be used by innovators as well as investors and companies. For example, if a team from XYZ location has a project idea or a startup idea, and wants to represent it on the platform, or are looking for investors, they will write a simple blog on the platform and can add the demo project link, project video link (if any), and the paper published link (if any).

The Innovation Sector is a great way for innovators to get their ideas in front of a wider audience. It is also a great way for investors and companies to find new and innovative ideas. To submit an idea to the Innovation Sector, simply create a blog post on the platform and add your idea in the body of the post. You can also add links to any demo projects, videos, or papers that you have created. Once your idea has been submitted, it will be reviewed by our team and may be published on the Innovation Sector page. If your idea is published, it will be seen by thousands of users, including investors and companies.

The Innovation Sector is a great way to get your ideas noticed and to connect with potential investors and partners. If you have an innovative idea, I encourage you to submit it to the Innovation Sector today. Here are some additional benefits of using the Innovation Sector:

- *Increased visibility:* The Innovation Sector will help you to get your ideas in front of a wider audience, including investors and companies.
- *Increased credibility:* Publishing your ideas on the Innovation Sector will help to increase your credibility as an innovator.
- *Increased opportunities:* The Innovation Sector can help you to connect with potential investors and partners, which can lead to new opportunities for your business.

If you are an innovator, I encourage you to use the Innovation Sector to get your ideas in front of the world. Following are few points that should be kept in the mind in order to create the Innovative idea post.

- Make sure your idea is clear and concise. Investors and companies will only have a few minutes to read your post, so make sure your idea is easy to understand.
- Use strong visuals. Images and videos can help to make your post more engaging and persuasive.
- Highlight the benefits of your idea. What problems does your idea solve? How will it make people's lives better?
- Be passionate about your idea. Your enthusiasm will be contagious and will help to convince others that your idea is worth investing in.

If you follow these tips, you'll be well on your way to writing a successful Innovation Sector post.

D. Motivation

Helping Tools believes that everyone should have easy access to high-quality services that can be customized to their individual needs. We were inspired to build a platform that offers personalized services to people, helping them achieve their goals and simplify their lives. We recognize that sifting through many service providers can be time-consuming and confusing, so we make the process easier by providing a one-stop shop.

Helping Tools' mission is to make the best services available to everyone in one place. We are dedicated to helping users save time, money, and effort by providing them with the necessary tools and services. Our motivation is to provide a platform that enables people to reach their full potential.

The motivation behind the Helping Tools platform is to provide people with the tools and resources they need to succeed in life. We believe that everyone has the potential to achieve their goals, and we want to help them reach their full potential. The platform offers a wide variety of services, including personalized education, finance, health and fitness, and productivity. These services are designed to help people learn, manage their money, live healthier lives, and get more done.

We are committed to providing high-quality services that are customized to the individual needs of each user. We believe that everyone should have access to the tools and resources they need to succeed, and we are dedicated to making Helping Tools the go-to platform for personalized services.

Here are some specific examples of how Helping Tools can help people:

1) A student can use Helping Tools to get personalized tutoring in math. This can help them improve their grades and get into their dream college.
2) A person can use Helping Tools to create a personalized budget. This can help them save money and pay off their debt.
3) A person can use Helping Tools to create a personalized workout plan. This can help them lose weight and get in shape.
4) A person can use Helping Tools to create a personalized productivity system. This can help them get more done and achieve their goals.

These are just a few examples of how Helping Tools can help people. We are committed to providing high-quality services that are customized to the individual needs of each user.

We believe that everyone should have access to the tools and resources they need to succeed, and we are dedicated to making Helping Tools the go-to platform for personalized services.

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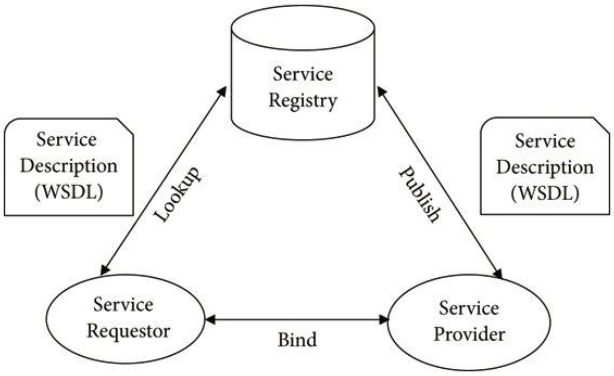
II. LITERATURE SURVEY – 1

Web Service Discovery - G.Senthil Kumar, Dr.C.Lakshmi 2 Asst.Proff, Department of Software Engineering, SRM University, Katankulathur, TN, India , Professor, Department of Software Engineering, SRM University, Katankulathur , TN, India , Web services are becoming more common in today's world and are enabling businesses to use the internet as a platform for both providing and using other people's services. A Web service is a self-descriptive software element that may be used by any computer using common protocols. a database of online services UDDI offers a technique based on standards that is interoperable for systematically describing and publishing web services. Finding the best service for a certain application gets challenging as more services become accessible and as the number of published web services in the registry increases quickly.Therefore, finding the appropriate services is the obvious problem here. The current method for finding Web services relies on keyword searches, which also don't deliver the precise services that the consumer needs. The most popular methods for finding web services are UDDI and a number of others. In this article, we primarily discuss how to assess a service's discoverability using web service techniques.

Discovery of a Web Service



Extensible Mark-up Language (XML), Simple Object Access Protocol (SOAP), Web Service Description Language (WSDL), and Universal Description Discovery and Integration (UDDI) are the standards-based methods for connecting web-based applications. Whereas XML tags data, SOAP transfers data, WSDL specifies the services that are offered, and UDDI [1] acts as a catalogue of the services that are offered. Web services are XML-based application components [2]. Any programme, regardless of the platform on which it was written, may use web services. In a WSDL document, web service descriptions are written. It is accessible over the web using the SOAP protocol. One benefit of web services is their capacity for Just in Time (JIT) integration, which allows them to automatically locate, connect to, and invoke other services during runtime. Once published, a Web service is quickly found and utilised by other applications.

A technique to locate web services is provided by UDDI [3].A web service registry that contains a generic description of the service and retrieves a list of services is specified by UDDI. Information and services might be published by the service providers. The service requesters can use the register to look for the right services, service provider personnel information, and technical details about its services. The UDDI registry maintains an integrated database of online services that is organised by service type, provider information, technical details to connect the services, and other factors. It also specifies a common API so that users may query the database.

The owner of the service is the web service provider in Fig. Service Providers register their web services using WSDL-based web service descriptions in order to promote their web services in public (or) private repositories [4]. In order to locate a service, a service requestor sends a request to the registry describing the specifications in a predetermined manner to the web service repository. The web service match maker finds a number of online services and matches the customer need with those that are available. The chosen and invoked web service is the last step after retrieval. Information in UDDI is categorised by OASIS into 1. white pages 2. Pages in yellow 3. pages in green. The general information about the business that provides the services, such as name, description, address, etc., is contained in the white pages.For either the firm or the service offered on industrial categories, Yellow Pages contain Common Classification Data based on Standard Taxonomies. Comprehensive technical information about web services is provided on the green page, allowing one to create an application to use the web services.

A. Conclusion

Discussed several methods for finding online services in this study; each method has benefits and drawbacks of its own. Web service discovery was initially carried out using a key word-based approach, but it has since expanded to include similarity-based, semantic-based, search engine-based, and non-functional based description approaches. Since many online services offer the same Properties and finding the precise web services is also a difficult process, web services discovery based on Qos is also receiving significant attention. Our survey summarises the different web service discovery methodologies, and our suggested work is on effective web service discovery with quick response times and precise service delivery to the customer in accordance with their needs.

III.LITERATURE SURVEY II

Designing Personalized Web Applications - Gustavo Rossi LIFIA - Faculty of Informatics. UNLP, La Plata Argentina , Daniel Schwabe Dept. of Informatics, PUC-Rio Rio de Janeiro Brazil , Robson Guimarães Dept. of Informatics, PUC-Rio Rio de Janeiro Brazil . This paper argues that personalization should be considered from the start of the development cycle for web applications.

Personalization is a critical aspect in many popular domains, such as e-commerce, and it is important enough to be considered in the design phase, rather than only the implementation phase. We present different scenarios of personalization that cover most existing applications. Our design approach is based on the Object-Oriented Hypermedia Design Method, which we briefly introduce. We emphasize the way in which we build web application models as object-oriented views of conceptual models. We show how we specify personalized web applications by refining views according to users' profiles or preferences. We show that an object-oriented approach allows for maximum reuse in these specifications. We discuss some implementation aspects and compare our work with related approaches. Finally, we present some concluding remarks.

The authors of this paper states a design-centered view of personalization can help developers build more effective and efficient personalized web applications. They propose a number of design abstractions that can be used to model personalization features, and they discuss how these abstractions can be used to create reusable patterns and components. The authors also provide a case study of how their approach was used to develop a personalized web application.

A. Content Personalization

Personalization of content occurs when nodes (pages) present varying information to different users. Link customization is closely related to content personalization, as personalized links display different information through their link anchors. However, we will refer to content personalization when the substantive information within a node is personalized, excluding link anchors. Content personalization can be categorized into two types: node structure customization and node content customization. Structure personalization is commonly observed on websites that filter and display relevant information to the user, presenting only sections and details that align with their interests. User preferences can be explicitly indicated or inferred from their profile or navigation activity, either manually or semi-automatically. For instance, on websites like my.yahoo.com or www.mycnn.com, users have the option to select a set of "modules" from a wide range of options, such as weather, news, music, and more. Furthermore, users can further personalize these modules by choosing specific attributes within each module. Some aspects of customization may be automated, such as using the user's zip code to select sport events of interest. These applications aim to empower users to construct their own personalized page, allowing customization even at the layout level.

The same approach can be employed to enhance the objectivity of WAP (Wireless Application Protocol) portals. A prime example is the Infospace application (www.infospace.com), where users have the ability to customize both the content and the content provider, essentially engaging in content syndication. This enables each customer to navigate through the desired information, resulting in improved site usability. The figure showcases the customization process and its outcome on a WAP phone. Applications that involve distinct user roles with varying access rights and authorizations also serve as excellent examples of structure customization. For instance, consider an academic application where teachers and students have different responsibilities. Teachers require access to their class schedule in order to update its contents, while students need access to available classes for enrollment, which may be dependent on their GPA.

Fig: Structure customization in my.yahoo.com

Fig : Personalizations in WAP Portals

When a teacher accesses a class node, it is crucial to have the update button accessible specifically for the classes under their responsibility. This allows them to make necessary updates to the class information, such as the syllabus. Conversely, students need access to various details such as the syllabus, course location, and course program. However, they should not have the ability to modify the site itself. Refer to Figure 4 for a visual representation of these distinctions. Another notable difference lies in the links to related information for each user role. For teachers, it is relevant to provide links to "other courses they teach," allowing for easy navigation between their different classes. On the other hand, for students, it is more pertinent to provide links to "other courses they may take," aiding them in exploring and considering their available course options.

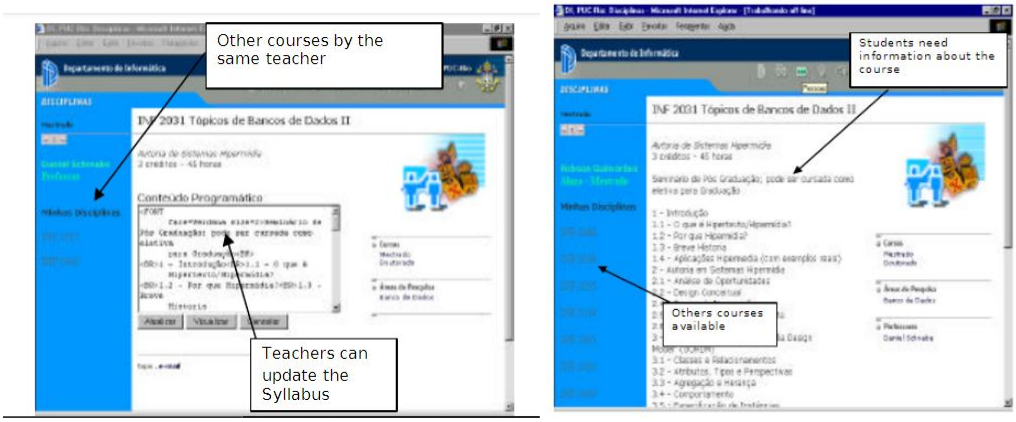


Fig : Structure Customization according to users' roles

Node content personalization refers to the situation where different users perceive distinct values for the same attribute within a node. This form of personalization is more detailed and specific compared to structure personalization. A prime example can be observed in online stores that offer customers exclusive discounts based on their purchasing history, thereby personalizing the price attribute of the items they see. Intranet applications also provide numerous instances of node content personalization, where the roles and requirements of employees dictate the customization of the information they have access to. For instance, in the intranet of ATL, a mobile phone company in Rio de Janeiro, different sales channels receive tailored information regarding business procedures. When a call center attendant searches for phone repair information, they receive details about the nearest repair center. On the other hand, when a repair center employee performs the same procedure, they receive specific repair instructions for the phone model, as depicted in Figure 5. Designing this type of personalization requires a comprehensive approach right from the start, capturing the personalization rules that are specific to different identified user groups.

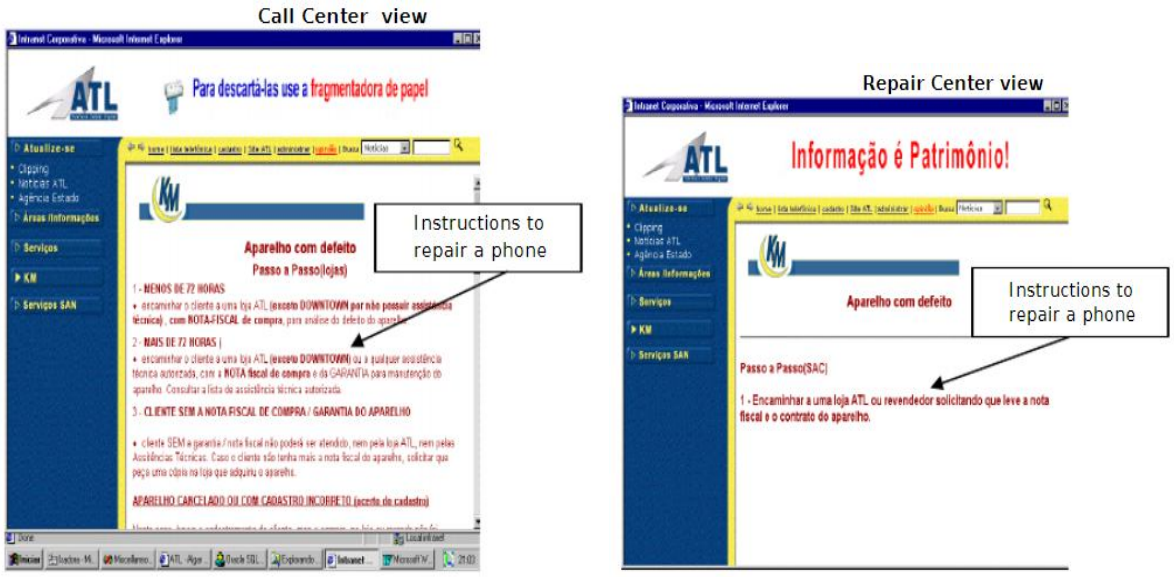


Fig : Node content personalization in the ATL intranet

B. Structure Customization

Numerous websites enable users to select from various options to access their desired content, and most of them even offer customization features for the interface layout. Take my.yahoo.com as an example, which provides two levels of personalization. Initially, users can pick the modules they desire on their site, like Weather, Headlines, Financial, etc. Additionally, they have the option to choose the specific information they wish to view within each module, such as cities, specific news sources, market quotes, and more.

In the provided figure, the navigation class schema illustrates the composition of MyHomePage, which consists of modules that are instances of a Module sub-class. These modules contain diverse types of information. The associated user object in the conceptual model serves as an interface for accessing the user's profile. This includes the modules they have chosen and the structure of these modules, as depicted in the figure. Each Module sub-class has its unique structure, such as displaying cities and weather in the Weather Module or listing news links in the NewsModule. Due to these variations, it is not feasible to consolidate attribute definitions and incorporate them into the Module Node. It is worth noting that the News Module itself is an aggregation of other sub-modules. By employing this specification approach, we can extend personalization to more specific aspects, like selecting the units for temperature display, as seen on mycnn.com.

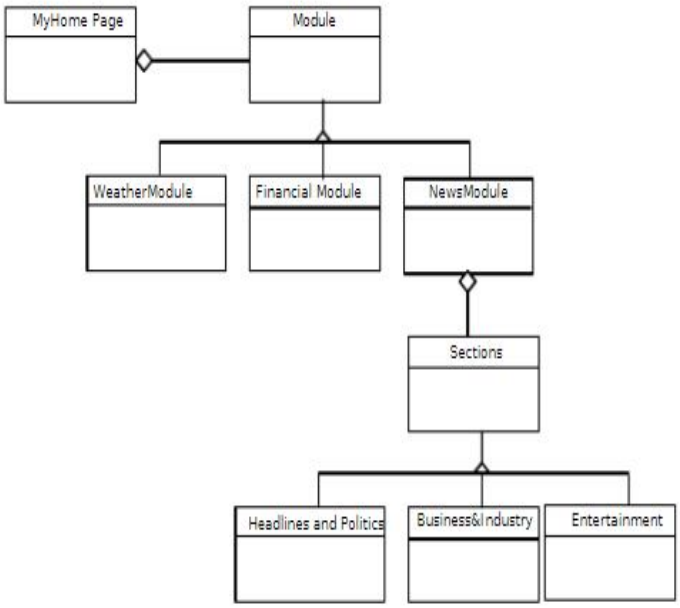


Fig : Basic Navigation Schema for yahoo.com

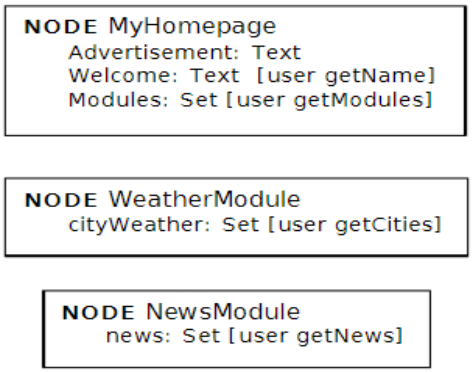


Fig : Customising node's structure

C. Reusing Specifications

In numerous instances, different user profiles may have overlapping specifications and ultimately share identical information within the application. This methodology can also be employed to incorporate specific functionalities tailored to each user profile. For instance, while customers have the ability to add products to their shopping baskets, managers have the additional capability of modifying product prices.

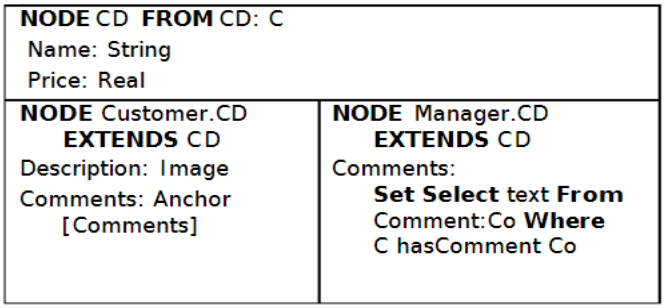


Fig : Extending a Node specification for different user profiles

The distinction lies in how the Customer and Manager CD nodes are defined as decorations on the CD, as opposed to being defined as sub-classes. The OOHDM solution offers greater flexibility compared to using inheritance, as it allows for independent sub-classification of CDs apart from Manager and Customer views. A more in-depth discussion on the variances between decorating and sub-classing can be found in the figure. Similarly, this approach can be utilized to specify different access rights for various user roles. For instance, in the Conference Paper Review application, we can define a Node class called Paper with essential information and specify that papers should only be linked to reviews and reviewers within the PcChair.Paper extension. This can be achieved by defining the appropriate anchor and other associated attributes. The figure illustrates an example of role customization.

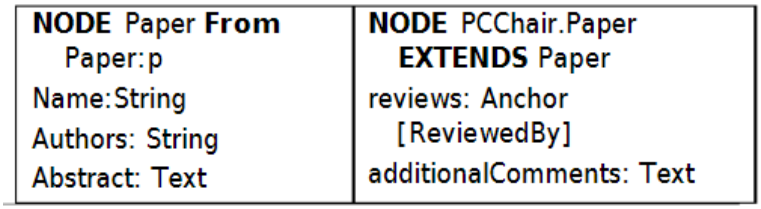


Fig: Expressing different access rights with extensions

There are two main approaches to incorporating dynamic behavior on websites: using HTML pages with server-side procedure calls or adopting site management systems. The traditional method entails utilizing HTML pages with server-side procedure calls, which is relatively straightforward to implement but can be costly and time-consuming when creating tailored solutions for each website. In contrast, site management systems offer a more abstract approach to implementing dynamic behavior. These systems provide a higher-level abstraction that separates content and business rules, simplifying the development and maintenance of personalized websites. One notable example of a site management system is the OOHDM Web environment, designed specifically to support the implementation of OOHDM (Object-Oriented Hypermedia Design Method) designs. OOHDM serves as a conceptual model for designing personalized websites. The OOHDM Web environment offers a range of features that streamline the implementation of personalized websites, including a library of functions for manipulating OOHDM designs, automated generation of index structures, object manipulation, and context navigation, as well as support for role-based access control and more. An alternative architectural approach to achieving personalization involves the use of proxies. Proxies function as intermediaries between users and the web, enabling customization of the user's web view based on rules, policies, and preferences. This approach allows for a tailored browsing experience tailored to individual users.

D. Conclusion

In the presented paper, the OOHDM (Object-Oriented Hypermedia Design Method) approach was introduced as a means to specify and design personalized behaviors in web applications. The primary objective of this paper is to initiate a design-focused discourse on personalization. By gaining a clear understanding of the design structures involved in constructing personalized applications, we can create systems that are more flexible and adaptable. The paper employs a notation that covers a wide range of customization scenarios. For instance, it demonstrates how different web applications for various user profiles can be developed by reusing a conceptual schema. Additionally, more detailed personalization can be achieved by specifying individualized content such as recommendations and customized pricing. The study reveals that our notation and the underlying design framework enable concise specifications by leveraging existing ones. The OOHDM notation employs a concise set of primitives for defining personalized attributes and methods. More complex personalization strategies, including the use of internet services, can be seamlessly incorporated by employing established design techniques that align naturally with the OOHDM approach.

IV. RESULTS AND FUTURE WORKS

Helping Tools platform is a platform that provides different tools and services developed by the team or the open community. Building all these tools is a lot of work, and making a server that can handle them all is a huge challenge. The work process of this platform will be a continuous one. New tools/services should be implemented regularly based on user feedback or market needs. Handling all the requests of the users is one of the biggest tasks. As we add new tools/services, the project will become larger and heavier, which will put a strain on the server. Therefore, the system architecture must be designed in such a way that everything can be handled without any problems or failures. Helping Tools platform is a platform that provides different tools and services developed by the team or the open community. These tools and services can be used by individuals, businesses, and organizations to help them with a variety of tasks, such as project management, collaboration, communication, and learning.

The Helping Tools platform is designed to be a continuous platform, which means that new tools and services are being added on a regular basis. This ensures that the platform is always up-to-date with the latest trends and technologies. In order to handle the requests of all users, the Helping Tools platform is designed with a scalable architecture. This means that the platform can be easily expanded to accommodate more users and more traffic. The Helping Tools platform is also designed to be secure. This means that user data is protected from unauthorized access. The Helping Tools platform is a valuable resource for individuals, businesses, and organizations. It provides a wide range of tools and services that can help them to be more productive, efficient, and successful.
The future scope of the Helping Tools platform is very promising. As the platform continues to grow and evolve, it will become an even more valuable resource for individuals, businesses, and organizations.

Here are some of the future possibilities for the Helping Tools platform:

1) The platform could be used to provide personalized learning experiences for students.
2) The platform could be used to help businesses improve their customer service.
3) The platform could be used to help organizations manage their projects more effectively.
4) The platform could be used to help individuals stay healthy and fit.
5) The platform could be used to help people connect with others from all over the world.

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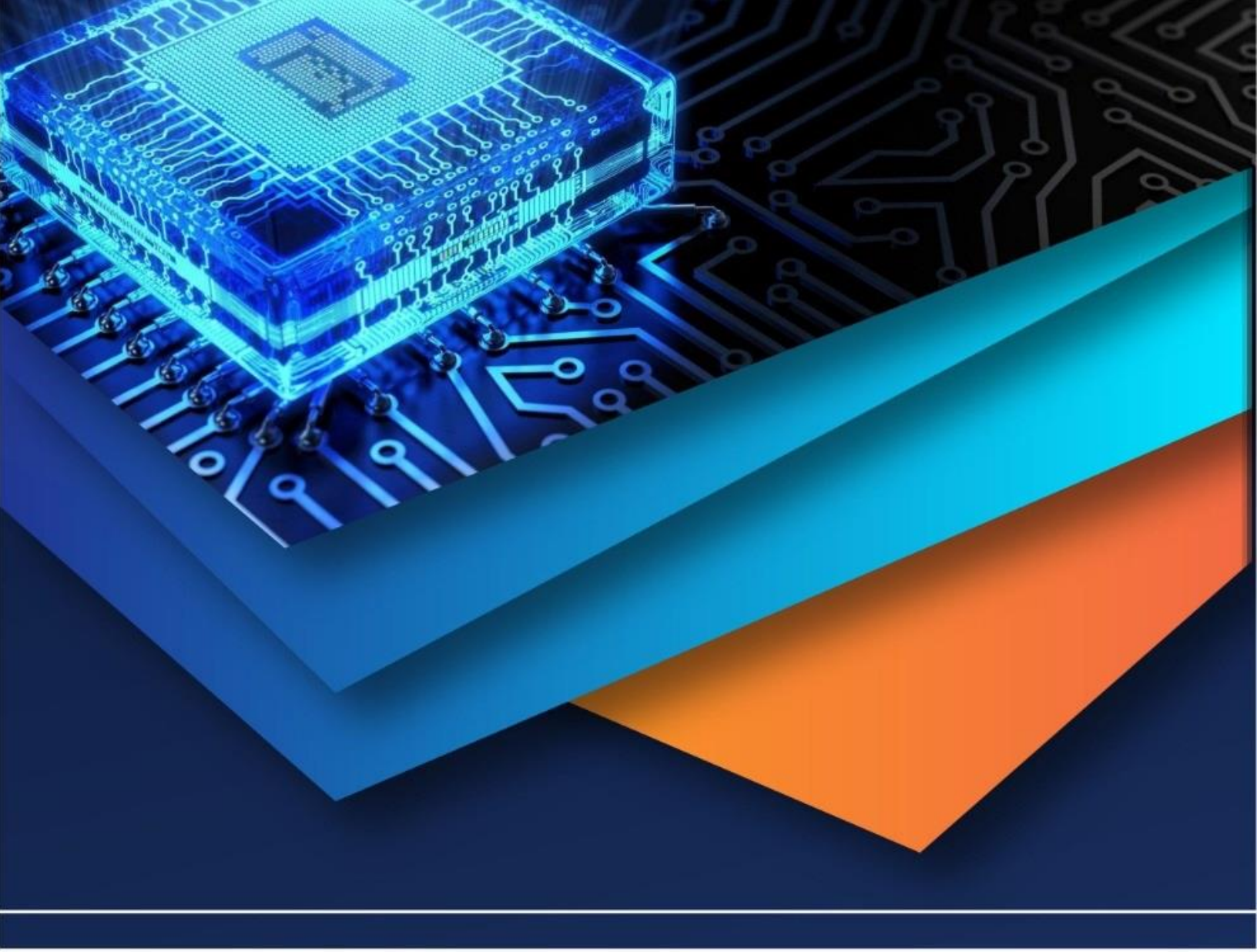

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