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CONTENT RATING SYSTEM FOR NETWORK-BASED SOLUTIONS

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CONTENT RATING SYSTEM FOR NETWORK-BASED SOLUTIONS

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ABSTRACT

Constraints (such as, for example, data privacy limitations) may limit the ability to measure the effectiveness of a piece of content (such as, for example, a Uniform Resource Locator (URL)) in solving a (e.g., network related) problem. Current analytics solutions focus on providing data on how many times a site is visited, but there is a lack of data that correlates a site's visibility with its effectiveness at solving a problem. To address challenges of these types techniques are presented herein that support a method for developing and safely exposing resolution ratings of internal and external URLs – based on, possibly among other things, information in ticket management or helpdesk systems – across various organizations through (e.g., open source) web analytics platforms. Aspects of the presented techniques may encompass, among other things, a URL Miner (which may tag URLs and create a specific user rating) and a Sanitized URL Rating (SUR) function.

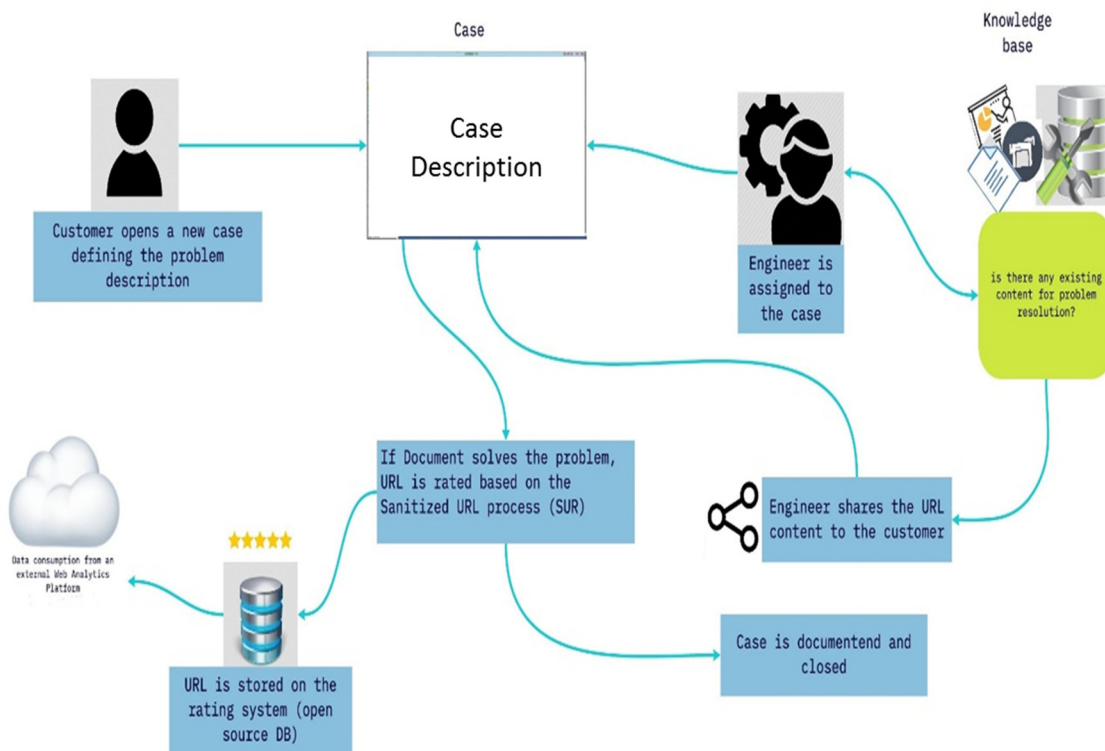
DETAILED DESCRIPTION

Many of the URLs – referring to, for example, documents, videos, blogs, etc. – that today are shared by support teams across various organizations encompass conversations that may be protected by data privacy limitations where, possibly among other things, the measure of how effectively a piece of content helped to solve a customer issue gets diluted and is seldom translated into a web analytics value. With many sources of information on network-related problems, it becomes challenging for anyone who may be searching for a way around an issue to find a trustworthy site to obtain a proper solution. Current analytics solutions focus on providing data that indicates how many times a site is visited, but there is a lack of data that correlates a site's visibility with its effectiveness for solving a problem.

To address challenges such as these techniques are presented herein that support the internal mining of the types of URLs as described above and provide for the presentation of sanitized intelligent data for consumption by external web analytics platforms.

Under aspects of the techniques presented herein, a content rating system for network-based solutions supports obtaining telemetry on content exposure based on the data that is stored in ticket management or helpdesk systems that are employed by customer support teams. The data – which may include email messages, phone logs, automated embedded data, among many other details – is analyzed and any possible URLs may be detected to identify how many times content has been shared by the employees. The detected URLs may be rated to assess the usefulness of a link from a problem solving perspective.

A URL Miner may tag the URLs and create a specific user rating based on, possibly among other things, problem classification tags, Mid Time for Final Resolution (MTFR), a hit timestamp, and frequency. An exemplary workflow is presented in Figure 1, below.



$$SUR = fn(URL, ProblemClassification, MTFR, RelevanceTimestamp, FrequencyUsage)$$

Figure 1: Exemplary Workflow

The SUR may be a function of, for example, URL link type (i.e., the source of the video, document, blog, etc.), the problem classification tags associated with a conversation (which may be tied to known state of the art problem classification techniques), Mean Time to Final Resolution (MTFR) of the issue based on how long it took to resolve a specific issue following the sharing of a URL (e.g., 24 hours, 48 hours, etc.), timestamp relevancy based on the freshness of a data sample, and the frequency at which a URL is shared.

The SUR may then be fed to any open source web analytics platform (such as, for example, Cloudflare) to provide a sanitized problem and solution rating from an internally shared URL that may then be consumed by applications to improve results mapping for network-based solutions. Of particular interest and note are aspects of the process orchestration of determining the SUR for sharing with an open source web analytics platform, aspects of which are depicted in Figure 2, below.

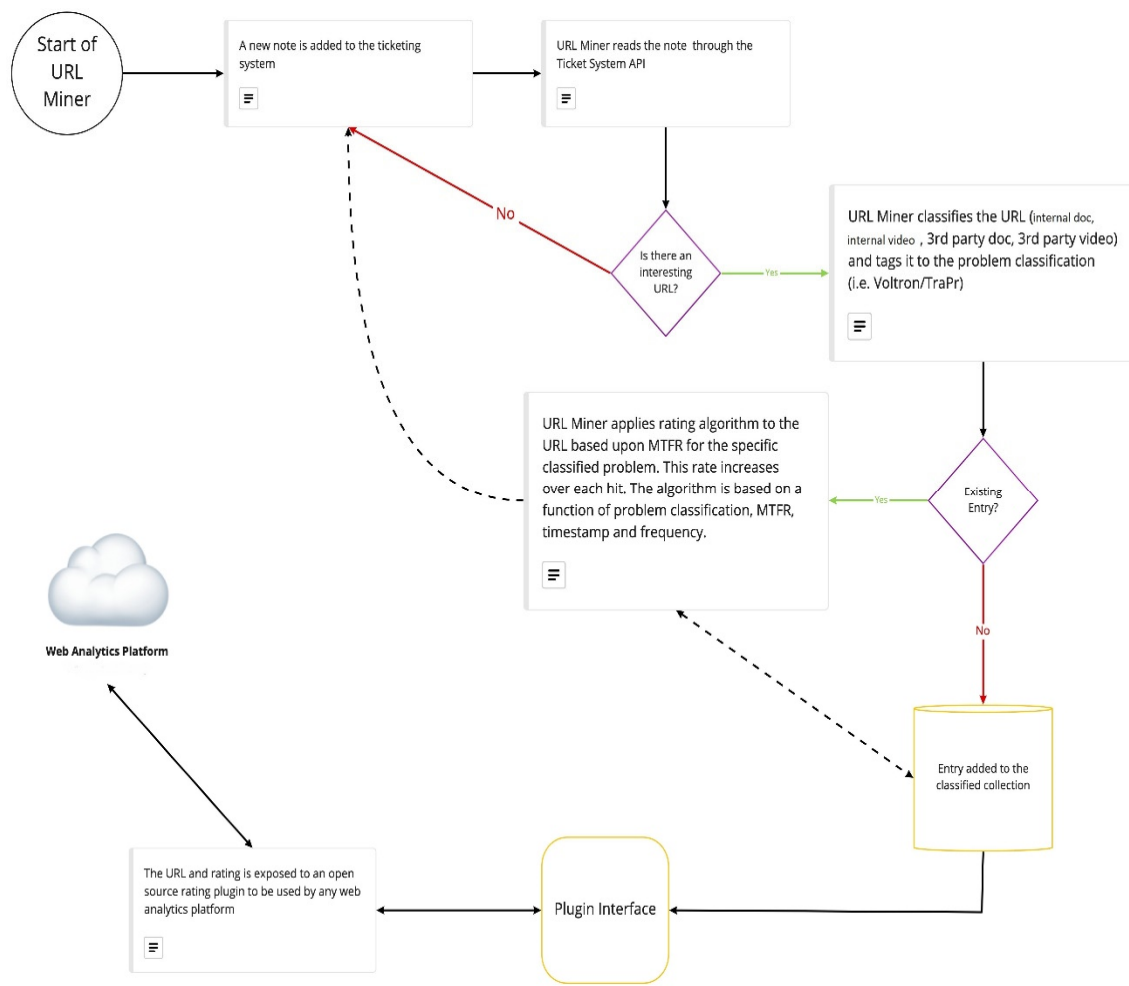


Figure 2: Exemplary Process

For the techniques that are presented herein, of particular interest and note are, for example, the following:

1. The URL Miner is able to detect owned (e.g., internal) and third-party URLs and classify them to their respective technologies based on, for example, aspects of the case notes that may be available in a ticket management or helpdesk system.
2. The SUR function supports mechanisms through which effective URLs, that are shared to resolve issues in the internal ticket management system, may safely be shared to improve web analytics ratings that are consumed by external consumers such as, for example, Cloudflare. The inclusion of a problem classification as a metric in the SUR function helps to tie in such ratings as a near equivalent to how a real user would provide feedback – through, for example, a document rating or a thumbs up – which has limited exposure means in existing internal ticket management systems.
3. Considering customer data protection and content privacy, the real URL links that help resolve problems are seldom exposed or tied back into problem keywords. For example, a network device smart licensing problem service request is opened. If a user shares a YouTube link for how to properly configure the licensing and it does solve the issue, the actual web analytics tie in of the problem "smart licensing," the network device name, and the URL seldom happens. As described above, under aspects of the techniques presented herein a sanitized URL rating metric may be calculated to share sanitized data to help improve web analytics against problem tags.

In summary, techniques have been presented that support a method for developing and safely exposing resolution ratings of internal and external URLs (referring to, for example, documents, videos, blogs, etc.) – based on, possibly among other things, information in ticket management or helpdesk systems – across various organizations through (e.g., open source) web analytics platforms. Aspects of the presented techniques may encompass, among other things, a URL Miner (which may tag URLs and create a specific user rating) and a SUR function.