The Wikirate Project

▶Development Priorities and related user/system requirements and architecture

D2.2.2

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Abstract

A look at development priorities for Q1 and Q2 of Year 2 organized by the themes of Huddles II through V: Community, Data Quality, Internationalization, and Ratings/Quantitative.

History

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Executive Summary

The theme of **Huddle II** was *Community*. In the coming six months, we will focus on community needs in multiple ways. We're reorganizing the homepage to better introduce core concepts to new community members and to make recent contributions more prominent for returning users. We'll dramatically reduce the barrier to initial contribution on the site with the introduction of our new Claim and Source voting systems. We'll smooth the path to *deeper* contribution through the "Adder's Churn", a cyclical series of incremental contributions. And we'll foster connections among contributing users through improvements to change notifications and discussions (talk pages).

In Thessaloniki we focused on *Data Quality* for **Huddle III**. We're currently developing the voting system that lies at the center of our data quality plan and that will soon be applied to Claims and Sources on Wikirate.org. Net votes on a given Claim will determine its *importance,* where an important claim is both true and valuable. All claim citations in Articles will include a visualization of the claim's importance as voted on by the community. Source quality voting will also coincide with a significant expansion of the kinds of sources supported on Wikirate, which will now include primary material contributed directly on Wikirate.org.

Our most recent huddle, **Huddle IV**, focused on *Internationalization*. Prior to the Huddle, Grass Commons presented a detailed proposal for multilingual support, a central component of Wikirate.org Beta 2 (Milestone 3). The proposal has since been refined into an operable plan. Users will be able to represent the languages they understand and will be shown only content in those languages. Different kinds of content will follow different translation patterns: universal (like ratings), monolingual (like structure rules), strict (like claims), free (like discussions), and mapped (like tags). This nuanced approach will allow for the deep integration of source material from many languages to be compiled into a coherent, multilingual whole.

Huddle V, whose theme is *Ratings / Quantitative,* is scheduled for January in Berlin. Granted, it may seem odd to include future huddle thematic material in a *post-huddle* context. But due to the centrality of this functionality, we have accelerated discussion and design of ratings handling. What has emerged is conceptually a Ratings Marketplace designed to provide fluid dynamic feedback of metrics' importance, companies' transparency, and community members' priorities all in service of helping the Wikirate community create, populate, and make use of better ratings of companies' social and environmental behavior.

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1 Introduction

As described in the Description of Work, this deliverable takes much the same form as a "Post-Huddle Report", in that it outlines coming development priorities and specifications. However, its scope is broadened from that of a Post-Huddle Report to include *two* coming quarters – spanning until Wikirate.org Beta 2 (Milestone 3) in month 18 – and to address topic areas from four different Huddles: II through V.

This document is organized around the themes of those four huddles, respectively *Community*, *Data Quality*, *Internationalization*, and *Ratings / Qualitative*. For each of them, we outline our current development priorities and implementation plan.

2 Huddle II: Community

While Huddle II took place over seven months ago, its theme of *Community* will naturally remain central to Wikirate.org for the duration of the grant and indeed the project.

Here we review a group of specifications with signification community impacts.

2.1 Homepage

The new homepage design was finalized in the first week of October and is slated for deployment in early November.

Our design is the product of an involved process involving many consortium members. First scenarios were written, designed, and discussed, with particular emphasis given to (a) delivering users into the cycle of contribution we call the *Adder's Churn*, and (b) a smooth path of engagement with the new ratings system.

Homepage requirements were then abstracted and discussed from the scenarios.

Then the design team (centered at Cambridge) presented multiple design variants, each responding to feedback from the previous.
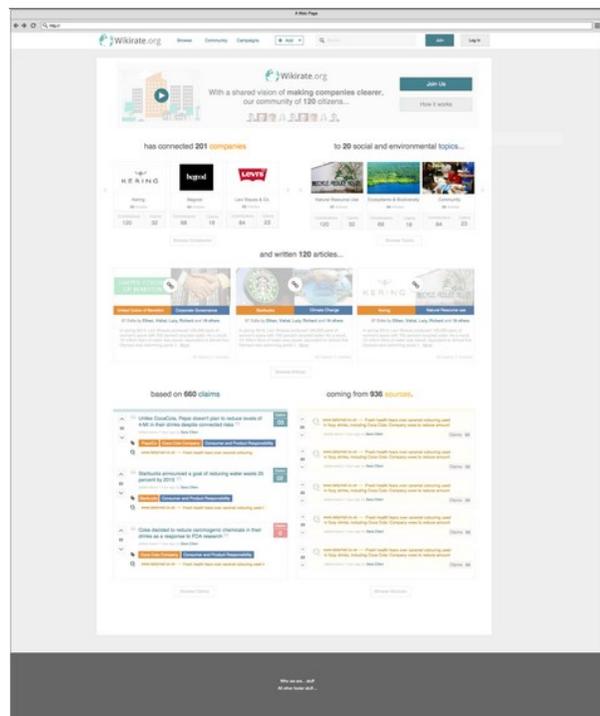
The new design addresses community concerns in multiple ways:

- Community acknowledgment is made more prominent than even the content itself
- The core content is arranged in a way that both smoothly introduces the concepts to new users and provides interesting updates to returning users
- Every content section provides some degree of detail about user contribution
- Some simple actions (voting) may be taken directly on the homepage.
- Activity and voting drive prioritization on the homepage, rewarding both community effort and data quality.

2.2 Voting

The voting system, which is currently under development and scheduled for deployment at the end of October, will receive much greater attention in Chapter 3 (Huddle III: Data Quality). However, it is worth mentioning voting here in the community context because of the many ramifications of introducing this very simple way of contributing to Wikirate.org.

Our voting design was guided by a user scenario outlining the experience of a user familiar with voting systems from other sites. Casting a vote is the user's first Wikirate contribution. This engagement then leads incrementally to deeper involvement.

More generally, voting will provide an instant community dynamism that has been difficult to generate when participation is limited to deeper contributions.

Another aspect of our current voting design has particularly fascinating community consequences: all voting is transparent and public. Only signed-in users may vote, and all their votes will be visible on their profile page.

Our rationale for *public* voting is as follows:

- It provides a safeguard against manipulation by interested parties
- It's consistent with our central branding theme of transparency
- It may encourage more considered votes (even if it costs in terms of total vote count)
- We can deploy this rapidly as an experiment and potential change to anonymous voting if it fails. In contrast, we could not easily go from private to public without encountering serious ethical concerns.

2.3 Adder's Churn

The Adder's Churn is a conceptual framework for encouraging incremental user contributions. It provides a clear strategy for absorbing new members more deeply into our community and has informed design of almost all core content areas.

With recent deployments, especially the integration of suggested sources from CERTH, we have "completed the circle." Analysis pages (those with Company-Topic articles) now prominently invite users to explore existing or potential sources not yet cited by relevant claims.

We are also just a few days away from deploying new versions of the Topic and Company pages. The new pages are designed to direct users into the churn by providing compelling listings of related Analyses.

the adder's churn

In coming months, we will hone the Adder's Churn by gathering feedback about where it most frequently breaks down both directly (e.g. think-aloud sessions) and indirectly (e.g. Google Analytics). In other words, we have built the wheel, but now we need to *true* it.

We currently have designs for making the route from Claims to Articles more prominent and for encapsulating citation counts on claim and source listings throughout the site (e.g. on the home page and profile pages) in order to support more enticing entry points into the churn.
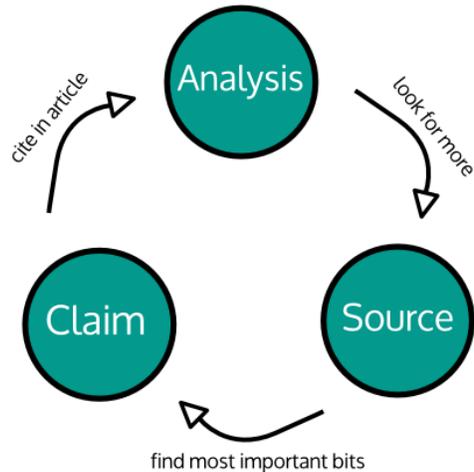
2.4 Change Tracking and Notification

Tracking changes and making those changes visible to community members is vital for any healthy wiki community. Communal data review the backbone of traditional wiki approaches to data quality and security, and change data are vital for understanding how other community members are exploring, contributing, learning norms, and being drawn back into the site by their activity.

We have recently deployed a new Wagn change tracking system that tracks not only content revisions but also changes to a card's name and type. Given that the statement of a Claim is stored as a card's name, tracking name changes is clearly crucial for Wikirate.org, but this was not previously supported. The details of this upgrade and its many consequences are discussed

in the Annual Development Review (D6.6.1) and the WP2 section of the annual report (D1.1.2). Here we will focus on how we will make greater use of these changes in the months ahead:

- Change notification emails will no longer be hard-coded. Administrators can customize the follow emails (and all emails)
- Users will be able to follow cards of any Set (they can currently follow only individual cards and all cards of a given type)
- Users will be able to receive changes in a digest, rather than all at once
- Users will automatically follow their own card (though they can choose to unfollow)
- Users will be able to choose to automatically follow certain changes, such as:
    - Changes made by users they follow
    - Changes to cards they created
    - Changes to cards they voted for

Also, we will be redesigning the Recent Changes page in order to group changes in more visually compelling ways.

These upgrades are currently scheduled for deployment in late November.

2.5 Discussions

Discussion cards (analogous to "talk pages" on other wikis) are central to community dialogue, which in turn is vital for creating and communicating about community identity.

While our current functionality is rather *comprehensive* (every card on Wikirate other than discussion cards themselves contains a menu item to "discuss"), feedback suggests it is not sufficiently *accessible* for broad adoption as a central tool.
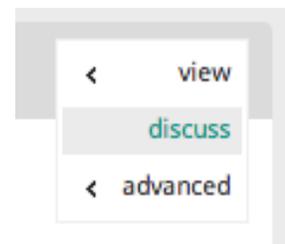
Later this calendar year increased design attention will be given both to enticing users to join discussions more prominently *and* to making it easier to find and follow discussion activity.

The former concern will center on the card menu, where we will consider:

- Reorganizing menu contents, which may entail strengthening Wagn's API for customizing menus.
- Supporting different menu views for different contexts. For example, an Article on an Analysis page may warrant prominent, always-visible links to "discuss" and "history", while this would almost certainly be overkill for a simple field card like +tags on a Claim.

3 Huddle III: Data Quality

The original Huddle Schedule presented in the Specification of Quarterly Priorities (Deliverable 2.2.1) set the theme for Huddle III as *Games and Currency*. But it was decided in advance of the huddle that *Data Quality* was in greater need of attention based on current site directions and feedback from our six-month review.

The data quality system design that resulted from Huddle III has informed everything implemented since, but we are only now beginning to implement its core components.

3.1 Voting

At the end of the month, we will be deploying a Reddit-like system of up-down voting on Claims and Sources. The vote will be framed as an indication of a claim's *importance*, which will be explained as an amalgam of *truth* and *noteworthiness*. In other words, a claim must be both true and noteworthy if it is to be important.

The basic user experience of this voting system will closely mirror that of existing implementations (Reddit, Quora, StackOverflow, etc.). Clicking an up-arrow registers an up-vote. Following that with a click on the down-arrow would remove the vote. Another down-arrow click would register a down-vote, and so forth.

We are implementing this system by creating a new Wagn mod, such that all votes will make use of the card representation, the basics of which are as follows:

- Canonical votes will be represented in "Pointer" cards associated users following naming patterns like *Philipp+*upvotes* and *Philipp+*downvotes*. Thus we can easily display a user's votes on his or her profile as a simple card nest.
- Vote tallies will be associated with the subjects voted upon, like *<Claim name>+*upvote count* and *<Claim name>+*downvote count*.
- The difference between these two tallies, which is the net score shown most prominently with each vote, will be stored in another card as *<Claim name>+*vote score*.

Naturally, this mod will be made available to all Wagn sites so that they can integrate voting into their system. Voting can be made private by changing read permissions on +*upvotes and +*downvotes cards.

3.2 Article Integration

What makes Wikirate's use of voting distinctive is the way in which it is integrated with the rest of the site. Importance voting even be readily visible in the middle of unstructured text; everywhere a claim is cited, the citation will be accompanied by a visualization that indicates the claim's importance. We have not yet finalized design for this, but a few initial designs have been offered for exploration.

In addition, uncited claims associated with an Article will be ordered by their voted importance. This may indirectly lower the barrier to article editing. Whenever an Article's cited claims are considered *less important* than its uncited ones, users will perceive an error of sorts, and fixing the error will be straightforward. Effectively, voting thus creates social pre-approval for article editing, which many users would otherwise find intimidating.

We hope to deploy citation visualizations in late November.

3.3 Source Types

To date, Wikirate.org has only supported sources with an external web page. Moving forward, we plan to support many new kinds of data, including:

- first-party source material, meaning data by companies about themselves
- primary source material, meaning data not published elsewhere
- original secondary source material, meaning distillations of existing data not published elsewhere.

We do currently track Websites separately from Webpages on Wikirate.org, but Websites themselves are not yet treated as Sources themselves. In our new conception, both are Sources, but only specific pages are *claim-citable.*

Claims-citable sources will include the following:

- External Webpages
- Source Files (uploaded source files, like pdf, xsl, csv, etc)
- Source Text (original text contributions)
- Company Responses (as outlined in the Ratings system)

Sources *not* citable by claims will include:

- Full websites
- Feeds (RSS, Twitter, etc)
- Source Leads – unstructured user suggestions for how to find source material

All of the above will be considered Sources and thus are subject to voting as outlined above in section 3.1.

Note that a Source itself can have multiple sources. A Website is a Source of a Webpage on that site, as is a feed that mentions the page. This will be a useful tool for visualization, because we will be able to show not only the voting for a single webpage but any other sources it has been linked to.

In addition to direct Source voting, Sources will be judged, of course, by the quality of claims they produce. It will be a design priority to support these kinds of judgments.

4 Huddle IV: Internationalization

Standard practice among wiki communities, most notably Wikipedia, is to have separate sites for different languages.

This model will not work for Wikirate.org. We do not want companies to score differently in different languages, nor do we want to multiply a company's reporting overhead by asking them to respond to the same questions on multiple sites. And we want the worldwide community of Wikirate users to be able to speak with a unified voice in "making companies clear" and to enjoy facing the cross-cultural challenges of working on this together.

In advance of Huddle IV, our second online huddle, Grass Commons presented to a project proposal for handling multilingual content on Wikirate. After extensive feedback from across the consortium, a second simplified proposal was presented publicly on wagn.org for comment. The core of the current plan is as follows:

4.1 Translation Patterns

Different kinds of data will follow different translation patterns:

- *Universal:* numbers, dates, JavaScript, CSS, etc require no translation
- *Monolingual*: some data, like card rules, should be written in only one language
- *Strict*: strictly translated data, like Claims, legal documents, and cards about site policy, need to be meticulously translated from one language to another. Considerable functionality must buffer that
- *Free*: other data, like discussions and Articles, are too unwieldy for strict translation, even when one language's variant may inspire another's.
- *Mapped:* in many situations, like +tag pointers, Wagn can use existing translations (of the individual pointer items) to perform translations automatically.

Wagn is uniquely suited to make use of a rich interaction of all these translation patterns by applying different patterns to different sets of cards as is relevant.

4.2 User Experience

Most Wikirate readers and editors should never have to think about translation patterns. They should simply be seeing the languages they understand and not seeing languages they don't. They can create, read, update, and delete cards of any language, but everything should happen for them in their preferred language(s) unless they choose otherwise.

So to begin, we have to know which languages the user understands / prefers. We will first determine language for new site visitors based on location. But even passive users (those with no account) should easily be able to set session-based language preferences. A user with an account will be able to store language preferences more permanently in cards. Interface for setting language will feature prominently atop every page, likely following the flag-based convention.

Importantly, this preference is an *ordered list* of preferred languages. For example, a user who prefers German but would like to see English where there is no German available would express preferences as a list of two languages: German, then English.

Content handling is fairly obvious when content exists for *all* of a user's preferred languages; we show the content in the most preferred language.

The handling becomes more interesting with *content translation opportunities*. That is to say, content exists in at least one but not all of a user's preferred languages. Handling for these opportunities will vary by translation pattern, but the most interesting translation pattern is *strict*. In these situations we will want interface to:

    (a) indicate that the card is not available in a known language,
    (b) offer the user the opportunity to translate it, *and*
    (c) offer automated assistance in the form of automated translation.

This "opportunity to translate" small chunks of information is particularly exciting from an engagement perspective; we expect many users will find this a uniquely enticing way to support the community. It may even emerge as a distinctive community role.

4.3 Administrator Experience

On the level of site administration, the biggest addition necessary for the new multilingual support is of a new rule types (Settings) called *name translation and *content translation. Creating one of these rules would mean applying one of the aforementioned translation patterns (Universal, Monolingual, Strict, Free, or Mapped) to a Set of cards.

There will also need to be supplemental syntax for links [[like me]] and nests/inclusions {{like me}}. When handling a nest, there are two main language points to consider: (a) what language are we using to identify the card, and (b) what language to we want to use when we show it?

Language used to identify card

1. Cardname language may be specified, eg [[de: strasse]], {{de: strasse}}
2. When language isn't specified, Wagn will use the language of the nesting card.

Language of cardname shown to user

1. Output language may be specified, eg {{strasse | lang:de}}
2. When language isn't specified, Wagn will base output language on user preferences

4.4 Implementation

The proposal will involve a great deal of work, including changes to the database, name processing, routing, the Wagn Query Language, caching, inclusion processing, and links. The new data representation is already well articulated in the proposal, though many of the more minor specifications remain.

However, the design is generally very compatible with Wagn's design principles, so we anticipate that the changes will be, in many ways, more broad than deep.

We expect to begin deploying multilingual functionality in February 2015.

5 Huddle V: Ratings / Quantitative

Huddle V (scheduled for January in Berlin) has not yet taken place, and WP4 (*Corporate Social Responsibility Ratings*) was only scheduled to begin in month 12. Nonetheless the consortium has been giving this topic a great deal of attention for many months, because of its integral role in all our functional and marketing planning.

Grass Commons introduced a plan for our ratings system in June, and the plan has since been honed extensively. The basic tenets of the plan are as follows:

- All quantitative data on Wikirate are represented as "Measurements", which are organized as "Metrics". For example, one Metric might be "Annual Revenue", and a given Company's Measurement for that Metric may be "100 million euros".

- Metrics may involve *raw* Measurements (for which values are entered directly) or *formulaic* Measurements (for which values are computed for other Measurements).

- Each raw Measurement must have a value, a year (or range of years), and a Source.

- Community members create Metrics and (where applicable) their formulae. All math involved in generating these formulaic Measurements (including high-level ratings) is thus fully placed in the community realm. A Metric's creator is prominently credited for creating a Metric.

- Community members may also vote (up-down) on the "importance" of each Metric. Metrics considered important to a user are displayed more prominently to him/her, and Metrics with more aggregate votes are displayed more prominently to the community.

- There is only one Metric in which the math is governed directly by Wikirate: its working name is the Wikirate Index of Transparency (WRIT), and it is expected to be the most prominent Metric on the site, because it is designed to incent companies to make Measurements available for every other Metric.

- A Company's WRIT rating is a measure of the extent to which a company has made valued Measurements available. It is currently conceived as a -1 to 1 scale. The algorithm would score each applicable raw Measurement, where unasked = 0, fully answered = 1, and unanswered = -1. The WRIT rating averages these scores weighted by the *importance* of each Measurement's Metric as voted upon by the community. For the purposes of the WRIT, a raw Metric's importance includes both direct importance votes and votes for formulaic Metrics that depend on this raw Metric.

Metrics and Measurements will interact richly with other core structures on the site. For example Measurements, like Claims, may be cited in Articles and must themselves cite Sources. In this way, a Measurement is essentially a quantitative Claim.

In coming months we will be further exploring and refining the proposal with actual use cases before implementing, but there are several elements of the system that have received particularly strong endorsement from the team:

- Clear value to Companies of contributing answers in order to increase the WRIT rating, elevating transparency above all other concerns.

- Clear value to Metric creators (Topic experts), who may promote issues and themselves by creating popular metrics.

- Wikirate provides a lot of framework but very little built-in math, which gives community members deep control over the measurements and dramatically reduces the number of controversial design decisions that must be made before implementation

- The rich feedback system between raw and formulaic Measurements, which creates room for organic development of the ratings system, and makes the site engaging even before data is broadly populated.

In early January we will begin the first round of metric-related deployments. This initial round will focus on raw measurements and the WRIT system. Formulaic measurements (other than WRIT) will be introduced two or three months later.

6 Conclusion

With each Huddle, our consortium grows more richly integrated. The designs emerging from these huddles increasingly reflect this richness, and we are quite excited about the development priorities for the coming months.

With the correction to focus on Data Quality at Huddle III (rather than Games / Currency as originally planned), our huddles have effectively focused consortium attention on our strategic priorities. Connecting these themes, we begin to see a picture of an *international (IV) community (II)* producing *high-quality (III)* qualitative and *quantitative (V)* data.

Much of the proposed functionality is quite innovative, but more importantly, it is also integrative. Clearly, the functionality from each of these thematic areas will support the others. Our multilingual support will create rich community interactions that will largely be cohered by the centrality of quantitative data. Our data quality mechanism depends on community, and attracting a larger community depends on data quality. And so forth.

The problem of lacking free, trustworthy information on corporate behavior has been around for a long time, but the solution has been elusive. The ambitious undertakings outlined here represent our reasoned strategy for addressing this important challenge.