Orbit: Writing Around Pynchon

Author(s):	Simon Peter Rowberry
Affiliation(s):	University of Winchester
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Abstract:

Since the *Against the Day* Wiki launched in October 2006, the Pynchon Wiki collection has received over twenty thousand edits, making it one of the largest, dedicated literary reference Wikis. One can now view and add annotations to all seven of Pynchon's novels – only *Slow Leaner* and his non-fiction remain *sans* Wiki -, and a loose community of over four hundred contributors have done so. This paper will assess the importance of the *Gravity's Rainbow* Wiki in transforming understanding and interpretation through asking four different questions: does the Wiki count as a disruptive force in the Pynchon interpretive industry, who contributes to the Wiki, what types of contribution do they make, and how do they exploit the hypertextual features on offer through the MediaWiki package? I will suggest that the Pynchon Wiki does not fully depart from old media forms of interpretation and remains fragmented in both community, resembling a symphony of soloists, and potential connections. This is a version of Web 2.0 synthesizing both Darcy DiNucci's original dystopian vision of fragmentation and Tim O'Reilly's utopian idea of harnessing "collective intelligence".

Reassessing the *Gravity's Rainbow* Pynchon Wiki: a new research paradigm?

Simon Peter Rowberry

"Doing this research without something like Google seems impossible, now."[1]

Since the *Against the Day* Wiki launched in October 2006, the Pynchon Wiki collection has received over twenty thousand edits,[2] making it one of the largest dedicated literary reference Wikis. One can now view and annotate all seven of Pynchon's novels - only *Slow Leaner* and his non-fiction remain *sans* Wiki -, and thus join a loose community of over four hundred contributors. This paper will assess the importance of the *Gravity's Rainbow* Wiki in transforming understanding and interpretation of Pynchon's *magnum opus* asynchronously through what Howison and Crowston call "collaboration through superposition." I will analyse the impact of the Wiki within the larger Pynchon interpretative industry and evaluate if it has been a disruptive force. This paper will first look at who contributes to the Pynchon Wiki, and the types of contributions they make. This will demonstrate whether the medium of the Wiki format has been well utilized. I will suggest that the Pynchon Wiki does not fully depart from traditional forms of interpretation, thus ignoring the multimodality and multimedial aspects of the Wiki, and remains fragmented as both a community, resembling a symphony of soloists, and as a hypertext system despite potential for highly connected textual apparatus. This is a version of Web 2.0 synthesizing both Darcy DiNucci's original dystopian vision of fragmentation[3] and O'Reilly"s utopian idea of harnessing "collective intelligence".[4]

In a previous study of the Pynchon Wiki, Schroeder and den Besten focused on the collaborative effort involved in annotating *Against the Day* and suggest that the Pynchon Wiki represents progress in the use of Wikis for literary e-research:

> a number of interesting patterns have already emerged which shed light both on the nature of literary e-Research collaboration and on how distributed work practices may change the academic analysis of works of fiction.[5]

Unfortunately, Pynchon Wiki has not hailed a paradigm shift for the use of Wikis in literary research. The field still remains bare, comprised mainly of the following canonical examples: Tim Ware's, the co-architect of Pynchon Wiki, *Infinite Jest Wiki*[6], the self-proclaimed first literary annotative Wiki for Umberto Eco's *The Mysterious Flame of Queen Loana*,[7] although *Finnegans Web* was established earlier,[8] and Literary Wiki,[9] where anybody can start a Wiki for a literary text, although there are currently

under twenty books available in various states of annotation. Fortunately, Wiki annotation projects are only a small sub-genre in the growing number of online projects which focus on collectively annotating literary texts, such as the *Institute for the Future of the Book*'s experimental use of CommentPress to facilitate a group reading of Doris Lessing's *The Golden Notebook*, and blog-based projects including *Infinite Summer*. No Wiki has been as popular as the *Against the Day* Wiki. The next best case studies still exist within humanities teaching, where several assignments, often closed off to the public, feature annotative Wikis.[10] Leving's *Keys to the Gift* website and book refutes Schroeder and den Besten's claim that once a Wiki was in place for a novel, annotations in book form would not be released,[11] as Leving recently released a book to supplement the Wiki's material, rather than supersede it.[12] Any progress in the use of Wikis for collaborative annotation appears to be occurring slowly, partially because of the nature of the text required in order for such a project to appear worthwhile to a critical number of volunteers, but predominantly because of the reputation of crowdsourced materials online within the academy. Although faculty initially demonized Wikipedia, the usefulness of Wikipedia and other Wikis has since been established in certain contexts, and has been defended as a scholarly source on occasion.[13] Wikipedia has had time to establish itself, while other Wiki projects have to prove they rely on similar mechanisms. It is uncertain how many academics have contributed to Pynchon Wiki, since it is anonymous and there is currently no reward in the academy for improving such projects.
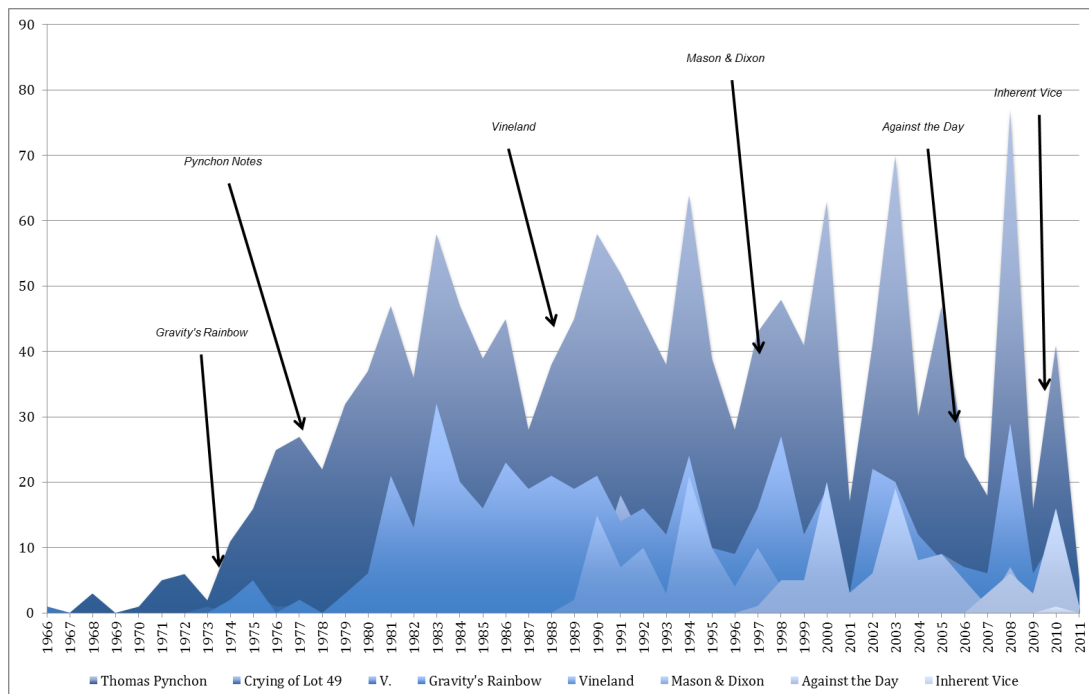

Figure 1: Yearly academic publications related to Pynchon as per MLA International Bibliography with publication landmarks
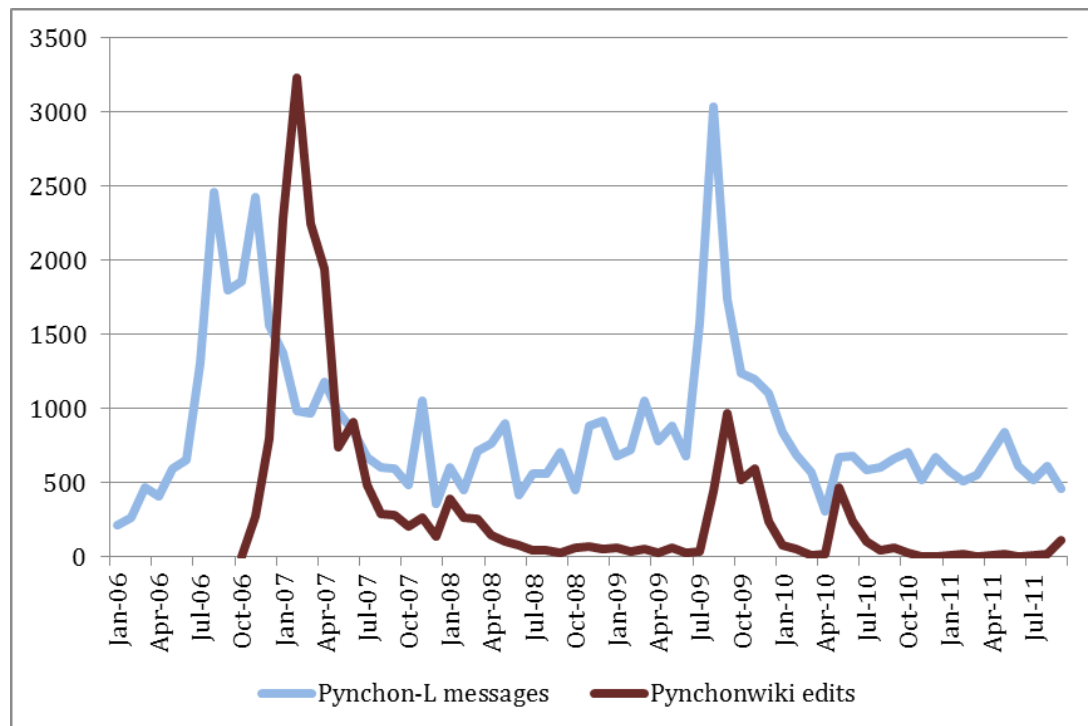
Figure 2: Monthly outputs of Pynchon-L and Pynchon Wiki

The trends of Pynchon interpretation: the amateurs and the professionals

There are currently two main Pynchon-based "interpretive communities,"[14] roughly divisible into the literary academic community, whose main outputs predominantly revolve around traditional print-based media, and the more informal popular readership, with the most fanatical members congregating around online fora, such as the Pynchon-L, and the Pynchon Wiki.[15] These two communities react to Pynchon's novels in different ways (figures 1 and 2), with the popular community often reacting faster than the academy. The greatest increases in mailings for Pynchon-L occur on the cusp, and just after the publication, of a new Pynchon novel, as demonstrated by the double to triple volume of emails in Spring 1997, Autumn 2006, and Winter 2009. This is in contrast to the records of the MLA International Bibliography, which indicate that there is usually a delay of up to two years before the first few articles about a novel appear, with the first substantial criticism appearing three to four years later, with a special collection in a journal or book, greatly increasing the number of articles focused on a single text (*The Vineland Papers*, *Pynchon and Mason & Dixon*, *Against the Grain* and *Pynchon's Against the Day: A Corrupted Pilgrim's Guide* represent the last four major scholarly collections on new novels). These delays are due to the lengthy peer-review processes and publication cycles afforded by the academy. It would be too simple to imply that this positions the academy as a "considered reaction" compared to a knee jerk from the web due to peer-review since Wikis follow Eric Raymond's "many

eyes" principle: "with many eyes, all errors are trivial"[16] and flaming on the Pynchon-L often acts as a crude form of peer-to-peer review. The comparable equivalent in the academy would be early conference papers and the informal discussions happening on the topic, or the newer forms of peer-to-peer review being undertaken in small pockets of academia, surveyed by Kathleen Fitzpatrick in *Planned Obsolescence*.[17] In all of these circumstances, what is lost in prestige is gained in scale and speed, thus facilitating a larger and faster feedback loop. Wikis famously thrive on these principles. It is unclear so far whether these tenets truly apply on the Pynchon Wiki though, since often edits are left untouched by other contributors and it is uncertain whether this is due to a lack of fact-checking, or simply because all the information is clear and insightful enough and consensus has been reached.[18] Moreover, discourse on Pynchon via web-based conduits is both an extension and inversion of Bérubé's prophecy in *Public Access*:

> Since the profession of criticism has undergone such lamentable hypertrophy, Pynchoniana proceeds apace at ever increasing speed; merely for their own promotion, tenure, and self-advancement, people now churn out Pynchon criticism so quickly that papers on *Vineland* appeared... before the ink on Pynchon's latest novel was dry.[19]

The Pynchon Wiki contributors do not annotate "merely for their own promotion, tenure and self-advancement," but rather pride themselves on the speed in which they can gloss a text that may be problematic for even the most experienced of readers. The Pynchon Wiki community is hitherto more altruistic than the academy. The Wiki functions as an information commons, whereby the more contributions, the better the resource becomes, and the information does not have to be carefully guarded to avoid another academic stealing their material and therefore losing a chance for self-gain. Moreover, this can replace some of the early criticism of these large and densely allusive novels, since critics must establish a referential guide for the text in order to build further interpretation. It is perhaps too early to be certain whether Pynchon Wiki supplements or replaces this early academic fact finding, although there is a clear shift in citations of the Wikis from academic sources towards acknowledging the Pynchon Wiki as a useful starting resource, akin to Vandendorpe's idea of having a "novice" and "expert" layer of interpretation around the novel, allowing a wider audience for the Wiki.[20]

The material that currently cites the Wiki can be easily divided between the social, crowdsourcing aspect or as a reliable record of annotation for consultation. Most current citations regarding the Pynchon Wiki reflect the crowdsourcing paradigm of the project,[21] while only a few explicitly acknowledge the *Against the Day* Wiki as a valuable academic reference for Pynchon scholarship.[22] In a more general context, Amy Elias recommends her undergraduates consult both the *Mason & Dixon* Pynchon Wiki and the PYNCHON-L MDMD (The Mass Discussion of *Mason & Dixon*).[23] Furthermore, Bernard Duyfhuizen in the new *Cambridge Companion to Thomas Pynchon* suggests that "One can assume that many readers of *Against the Day* will appreciate the Wiki site devoted to the novel for basic introductions to the mathematical concepts at

play".[24] The *Against the Day* Wiki does not replace traditional scholarly outputs in this approach, but rather is a good resource for basic fact checking, which can then be cross-referenced elsewhere if necessary. This is a shift from the approach Weisenburger used in his revised *Gravity's Rainbow Companion*. Although he acknowledges the overall contribution Ben Teague's corrections had on his text and includes a reference to the website in the bibliography[25] Teague's presence is conspicuously absent from the main text, while Larsson, a prominent academic, is referenced repeatedly through the book.[26] Even though Teague's main contributions are available on a public web site, rather than email communication, since he is not a member of the academy he is marginalized rather than referenced in text. The *Gravity's Rainbow* Wiki too has been largely ignored by the academy and marginalized in critical discourse. Despite this, Schroeder and den Besten frame "The Pynchon Wiki... [as] an example of humanities e-Research, though it could equally be seen as an amateur or hobbyist effort or as a community of fans of the author".[27] The *Against the Day* Wiki is privileged, given its unique position as the sole current annotative authority on the novel. While the Wikis that focus on a text that has previously been glossed by several scholars, such as *Gravity's Rainbow*, are unlikely to be acknowledged by academics unless there is a major breakthrough on the Wiki. Furthermore, this scenario would generally only be noticed if it was also published through academic channels. Although a small shift can be seen so far, it appears as though the novel has to be untainted by traditional forms for the Wiki to appear authoritative.

As can be seen from figure 1, the number of references to Pynchon and his novels varies wildly from year to year. Perhaps this is due to the limitations and biases of the MLA International Bibliography, and the unsung efforts of scholars in countries not as well represented by the MLA, but the patterns surely would remain fairly stable nonetheless. Most of the prolific years represent a surge of interest given the publication of a new novel (very similar to Pynchon-L and Pynchon Wiki), or the release of a new collection concerning Pynchon. The occasional skipped year in the publication of *Pynchon Notes* (1996, 2001, 2004-2007, 2009-2010) also creates cause for fluctuation. Thus, there is a constant trickle of Pynchon scholarship appearing through print, and increasingly digital, media. Assuming all Pynchon publications are at least articles of roughly six thousand words, at least 150,000 words have been published on Pynchon per year, since the Pynchon Wiki was formed in 2006, there have been at least 750,000 words published on Pynchon, and most likely a lot more, once one factors in monographs. Meanwhile, the Pynchon Wiki has produced over one million words including a substantial number of paratextual devices, boosting the word count. The Wiki collection's output has not been substantially different to expectations of the Pynchon critical industry. In fact, the comparatively younger interpretative online community has gained traction in a third of the time the academic community have achieved the same thing. Moreover, from figure 3,[28] one can see there is little correlation

between the publication of academic materials and edits on the Pynchon Wiki or contributions to the Pynchon-L. In fact, outside of the burst of activity related to the newly released *Against the Day* at the start of the project, the Wiki has generally received a small volume of edits. The only other year the Pynchon Wiki approaches a regular output was 2009, when *Inherent Vice* was published. Therefore, despite the volume of edits during the early exploration of *Against the Day*, interest in the Wiki as a site of new knowledge has decreased over time, as discussion moves to other media such as mailing lists, while academic outputs have remained relatively stable. It is still too early to tell if the Pynchon Wiki will increase in prestige in the near future, but the academic Pynchon community have acknowledged the Wiki, although the two cultures remain fairly separate.
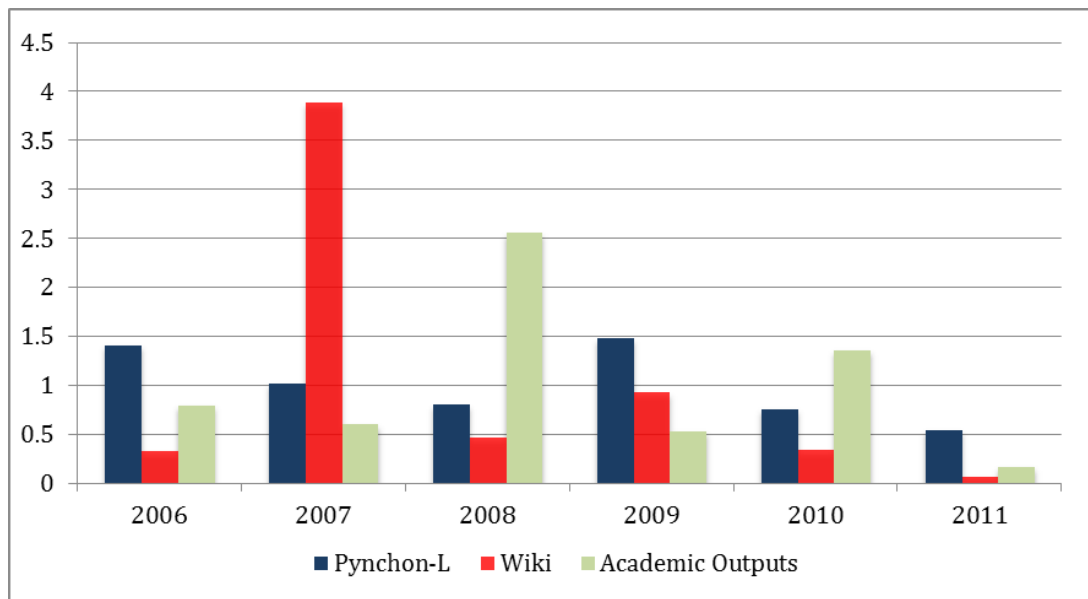

Figure 3: A proportional index of activity per year of the three Pynchon communities

Another pattern Schroeder and den Besten found that did not necessarily evolve was that the *Against the Day* Pynchon Wiki replaced the Pynchon-L for a couple months as the primary place for Pynchonalia online.[29] Both before and after the publication of *Inherent Vice*, the Pynchon-L extensively discussed the novel, but once the text was published, the Pynchon Wiki did not receive a substantial increase in edits, as the Pynchon-L discussed the novel more thoroughly than contributors to the Wiki. Perhaps this reflects the underwhelming nature of *Inherent Vice* following the hefty size and allusive nature of *Against the Day*. Moreover, the outputs from the Wiki only matched that of Pynchon-L due to the singular contribution of Georgeman, one of the many active contributors to Pynchon Wiki, in 2010. It also suggests that although there is some overlap between the two communities, the Wiki does not necessarily replace discussion about the novel as it is released.

　　　With the benefit of time, it is now clear that the popularity of the *Against the Day* Wiki was a confluence of the right conditions, including time, text, community and interest in the format of the Wiki. Tim Ware established the *Against the Day* Wiki before the novel had been released, with a head start due to the proofs he was handed before the novel was released (there were over 200 edits by the end of October 2006, a month before publication), creating those all-important stubs, which Nicholson Baker has called "an 'unusually humble' ask for help,"[30] and starting points for other collaborators to expand on. Furthermore, *Against the Day* is a tome of over one thousand pages, a couple of hundred characters, several intersecting plotlines and some very obtuse allusions; in short a "difficult" novel. With a lot of interest in the Wiki format due to the publicity of Wikipedia, and the online community built around the already established Pynchon-L and the press generated by the project, it would have been difficult to stop the *Against the Day* Wiki from being a runaway success. A more interesting case is the Wiki for *Gravity's Rainbow*. Not only does the *Gravity's Rainbow* Wiki annotate a novel that has been released for forty years, dispersing any hype of annotating something new, it also has a long history of annotative projects, starting with Douglas Fowler's now out-of-print *Reader's Guide to Gravity's Rainbow*, followed through by Weisenburger's seminal *A Gravity's Rainbow Companion*, which was refuted online by both Ben Teague and Don Larsson's *Companion's Companion*, and revised in light of these developments in a second edition. The Larsson annotations were then taken as a starting point for the *Gravity's Rainbow* Pynchon Wiki's page-by-page reading, while the alphabetic and motif annotations date back to Ware's concordances posted on his older websites,[31] and were potentially influenced by the earlier "An Index to *Gravity's Rainbow*".[32] Furthermore, many articles have focused on annotating specific sections of *Gravity's Rainbow*, the Pynchon-L have a perennial "*Gravity's Rainbow* Group Read" and Stuart Moulthrop created *Hyperbola*, a HyperCard stack designed for a class before the rise of the World Wide Web. With a novel as complex and intriguing as *Gravity's Rainbow*, it is unsurprising that there are many annotative projects, but this has become problematic since there is only partial integration between sources and only occasional acknowledgements between the various fragments, and there is not a single source that can be close to being called definitive given the daunting scope of Pynchon's novel.
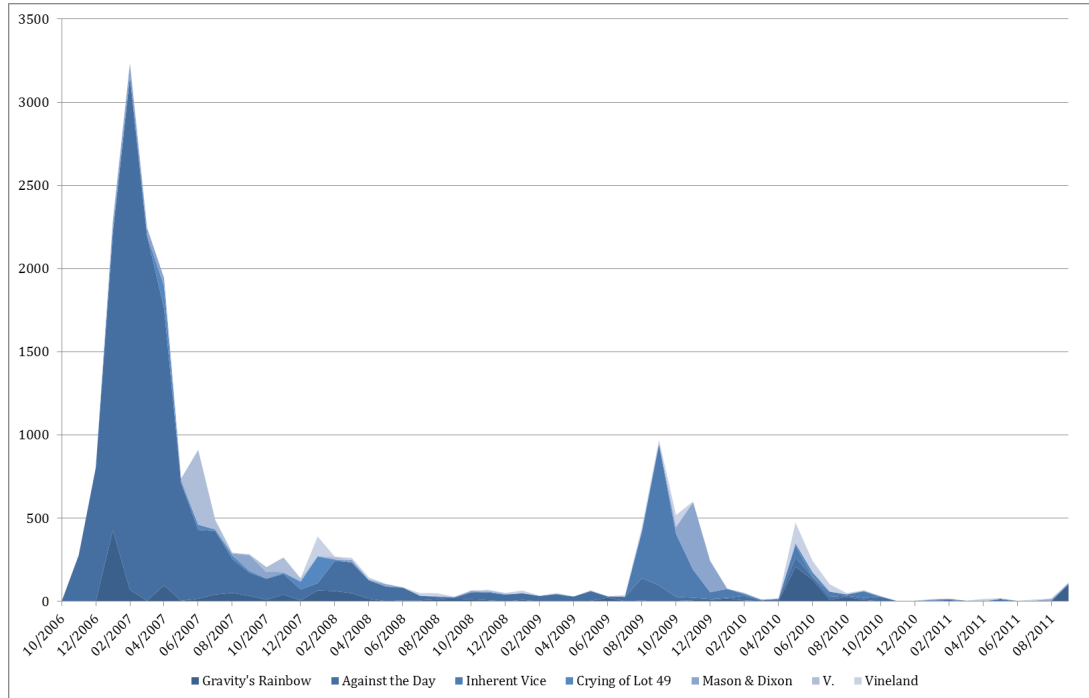
Figure 4: Edits on Pynchon Wiki per month

The make-up of contributors to the Pynchon Wiki

Although the potential for a paradigm shift in scholarly research about Pynchon initially predicted by some when the *Against the Day* Wiki launched never occurred, the Pynchon Wiki collection still offers a unique opportunity for looking at work in progress with the discrete unit of the edit, and the separation of the novels into seven clear Wikis. A user's contribution can be analysed in terms of the novels they have annotated most, as well as the themes that interest them most. This is unique to the Pynchon Wikis, since both Pynchon-L and most Pynchon scholarship tend to lack these discrete units and often blend different motifs and texts together. Yet there is still not complete transparency, since the editor may only transfer their gloss to the Wiki format once they have proofread and refined their initial argument. Furthermore, it offers the easiest opportunity to add to the body of knowledge of Pynchon. The academy is infamously difficult to enter, and in order to enter the discourse of Pynchon-L, one must observe certain protocols in order to not get shot down in flames. Meanwhile, as Clay Shirky conjectures, the "minimal unit of Wikis is the typo edit – every edit is incremental".[33] Although correcting typos is the minimal unit of effort, the Wiki philosophy also means that every new entry, no matter how small, can help to build the body of knowledge. An editor can easily remove erroneous annotations. Furthermore, there are several pages dedicated to copies of poems and lyrics that Pynchon alludes to throughout *Gravity's Rainbow*. If the poem or lyric has already been referenced in the commentary, it would be easy for a novice editor to search for the original text and start a new page with the full

text, thus creating a valuable asset for the Wiki. Moreover, as Schroeder and den Besten highlight, the Wiki is mainly comprised of lists, which are easier to add to than dense prose.[34] Therefore, the format and informal understanding of the Wiki's rules have led to a community that can add knowledge to the Wiki in either great depth, or just superficial additions that can be expanded by the other users.

As the Wiki works predominantly through "collaboration through superposition,"[35] in the methods outlined above that facilitate individual actions that do not require interaction but lead to a greater information commons, the Pynchon Wiki community is disparate and rarely interact in a direct way. Schroeder and den Besten note, aside from "Occasional... discussion of how the Wiki should be organized... the discussion pages, are the only way in which the Wiki can be said to consist of a 'community', apart from the fact that the contributors share a keen interest in Pynchon's work".[36] The discussion pages of the *Gravity's Rainbow* Wiki are relatively sparse, and the mechanisms involved in forming the paratextual devices were predominantly self-organizing, or the work of a single individual, borrowing principles established by the older *Against the Day* Wiki. The community rather identifies the areas that they can improve in the time that they can allocate to the task and then achieve this. Therefore, there will only be incremental increases and often the larger tasks such as undertaking a new page-by-page reading from front to back cover will not be completed due to the size of the task that was underestimated by the keen reader.

Figure 4 shows the edits per month for each Wiki. One can see that outside of the initial bulk of edits, the Wiki has received little attention. Furthermore, 93% of contributors have fewer than 100 edits, while only three have above one thousand. There is a real imbalance within the Wiki, although this exists in Wikipedia also, but long-tail economics, as Anderson notes, dictate that enabling the remaining 7% to contribute, ensures that niche entries are included, and the Wiki becomes richer for it. It is the singular efforts of certain users that are the most visible. The most illustrious examples of these individual attempts to gloss a particular part of the text by an individual user, and therefore an example of "collaboration through superposition," include user Georgeman's work on *Gravity's Rainbow* in Summer 2010, and Greenlantern's read-through of *Mason & Dixon* in Winter 2009, and *Gravity's Rainbow* in Autumn 2011 (see figure 5 for illustration). Georgeman edited most of the pages on the *Gravity's Rainbow* Wiki, while Greenlantern read the novel in a linear manner and annotated correspondingly. These editing binges represent the bulk of activity since the Wiki's peak usage in early 2007. Georgeman attempted more than a page-by-page reading favoured by Greenlantern by adding to the motifs and alphabetic index. This is arguably the tougher feat, since it requires careful reading at the macro level of the text, rather than the micro level of the page-by-page. Looking beyond these individual efforts, the overall interest in improving the Wiki by groups or individuals is very low, and there

have been very few edits since the initial fever towards editing but rather a slow trickle towards furthering the usefulness of the Wiki. This may reflect the nature of *Gravity's Rainbow* scholarship, since source discovery is becoming less frequent as we know more about the text. Perhaps only major new discoveries are deemed worthy of a new gloss, and the accumulation of lesser knowledge is not a priority, as it is assumed it could be found in the vast scholarly network surrounding Pynchon's novel. This does not mean that the Wiki has not established a network of users who only choose to read. The visit count of the Home Page, the default entrance to the Wiki, and the average number of edits per page indicates that there are almost fifty visits for every edit. This suggests that people are still using the Wiki, but it is reverting into a reference document more than an organically evolving collaborative structure.
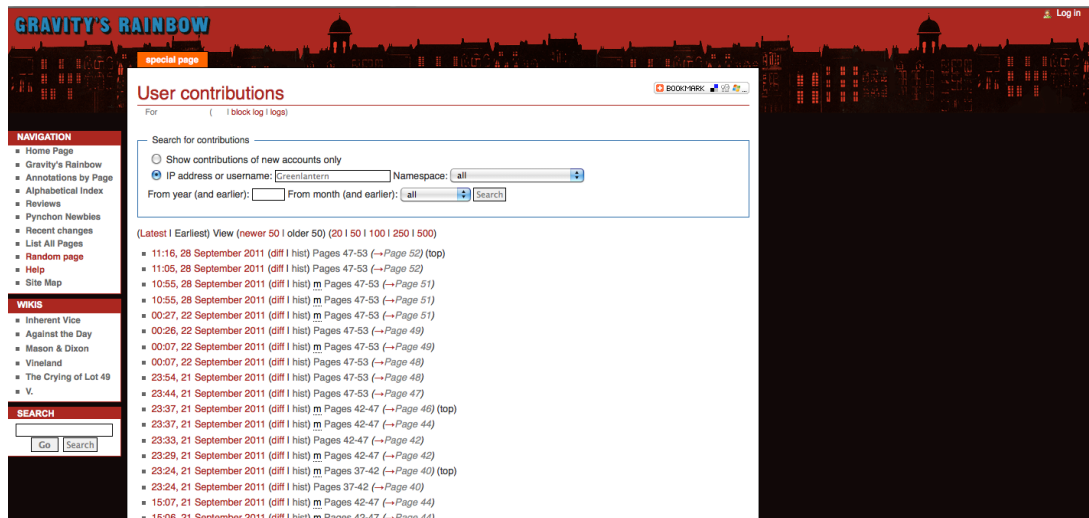

Figure 5: A screenshot of Greenlantern's contributions to the *Gravity's Rainbow* Wiki

The contributors to the Pynchon Wiki have tended to be more interested in annotating new material rather than improving existing content (figure 6). This is likely due to the synchronous editing process and the sense of community revolving around exploring new ground rather than retreading material in a slightly more daunting context of Pynchon's older novels and their impressive range of scholarship. The two novels released during the life time of the Pynchon Wiki have received eighty percent of all annotations. *Inherent Vice*'s share of annotations is the most impressive, since it revitalized the Wiki collection's activity briefly and has a ten percent share, twice as much as the most popular older novels; this is impressive considering it has only been live for a third of the time. It has also received the lowest proportion of views to edits, indicating that editors have more interest in the Wiki than readers. Interestingly, the most viewed Wikis, other than *Against the Day*, are the three oldest, all of which have been visited one hundred times for every edit. This is probably because these are often assigned in university classes, and therefore students are likely to visit the Wikis to understand complex references, while the newer novels have not yet appeared on the

same number of curricula, and are thus consulted less. Furthermore, of the old novels, one third of all edits come from Tim Ware, who has contributed thirty percent of edits to *Gravity's Rainbow* and fifty-nine percent for *V.*! These are also two of the three novels, along with *Mason & Dixon*, for which Ware produced alphabetic concordances prior to starting the Pynchon Wiki, thus his accumulative contribution in time is even higher. While this represents a singular effort from the administrator of the Wiki, it has enabled contributions, since stubs encourage and inspire users to expand on areas of knowledge that are incomplete, rather than acting as an imposing *tabula rasa* for new and strange annotations. The level of Ware's contribution has therefore encouraged other people to work on the project, since they know somebody will be working hard to ensure accuracy. Moreover, Schroeder and den Besten highlight the lack of strong community ties when they report that Ware "does not know any of the major contributors offline".[37] The Wiki thus acts as the opposite of the academy, whereby conferences and other online activities work as an exclusive social network, and academic outputs are highly social through use of references. It is perhaps the exclusivity of the academy that tightens the social bonds, while the open approach of the Wiki hinders strong connections. The contributors to the Wiki only occasionally recognize or endorse the annotations of others through linking or commenting, while the scholar displaying a similar level of aloofness would be condemned. Howison and Crowston's "collaboration through superposition" can thus only be seen within the Wiki community currently as the academy have to be more careful to retread familiar territory. Careful communication, although it is made easier by the Wiki, is thus a less predominant feature of the Wiki. Dialogue may occur off-site on the Pynchon-L or elsewhere, but there is little evidence of this phenomena on the Pynchon-L, where the findings of the group readings have generally not been transferred over to the Wiki, perhaps indicating that the task is too time-consuming for editors of the Wiki. Predominantly the "collaborators" appear happy to continue to work individually reflecting the "collaboration through superposition" model already established in Wikis through their free software mentality,[38] resulting in few editing wars. Although this may not demonstrate an explicit community structure, the individual contributions form a rich tapestry that is of use to all involved, or all that wish to visit.
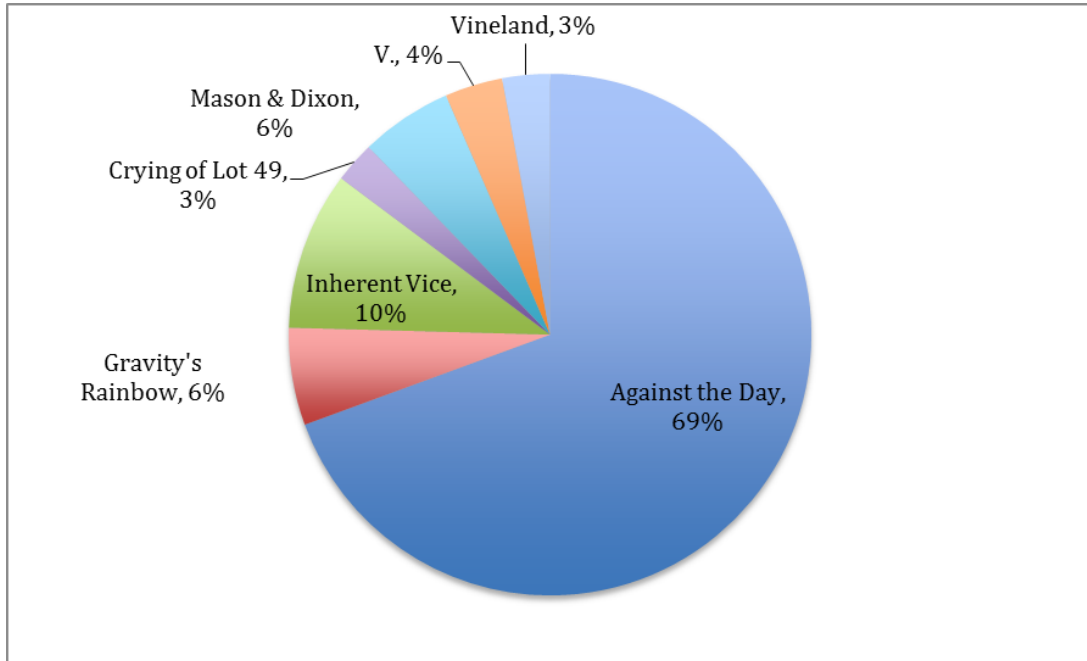
Figure 6: The percentage of edits each novel receives on the Wiki

Gravity's Rainbow – the case of multiple sources

Gravity's Rainbow makes a perfect case study for the contributions to the Wiki, since it has a pedigree of annotative history both online and in print, and a dialogue between the two. The acknowledgements from Weisenburger's two editions of his *Companion* show the significant impact the World Wide Web has had on annotative scholarship. In the first edition, Weisenburger thanks just twenty-four people, predominantly academics, and a large proportion of libraries and Inter Library Loans services.[39] In the second edition, the acknowledgements have expanded to fifty people, and now over half the people he acknowledges have no (apparent) nominal attachment to the academy.[40] Furthermore, as the epigraph to this paper suggests, Weisenburger acknowledges the usefulness of modern search engine technology. Many of the acknowledged have been thanked for their very specific knowledge of previously troublesome data for Weisenburger. This has been something that Weisenburger was criticized for by Teague in the conclusion to his *Companion's Companion*:

> More than by anything else in the work, I'm angered by W's tendency to dismiss problems. Can't find the old Baedeker for northern Germany? The street names in Greifswald must be fictional. Don't live among techies, or actors, or soldiers, or anybody else with an extramural job? Label their every phrase "argot." Can't follow the explanation you get from the math professor down the hall? Edit to make it shorter. A more astute writer would have borne down harder on the hard points and created a more useful book.[41]

Although this can be seen as editorial oversight, arguably the mistakes work similarly to stubs since corrections are the minimal effort of work. The problem then becomes the processes required to publish the corrections. Only a single update of Weisenburger's

guide has emerged in the twenty years since it was initially published, while the *Gravity's Rainbow* Wiki has the potential to be updated at any moment. Not only can the Wiki remedy most of these problems because the level of knowledge has the potential to be as broad as the contributors that find the Wiki, while Weisenburger's guide will predominantly be corrected by fellow specialists, but the Wiki also allows infinite space to expand on tricky passages. Thus, despite the Pynchon Wiki being launched too late to make an impact on the second edition of Weisenburger's *Companion*, the popularization of the Internet through the World Wide Web and the corollary exponential growth of e-mail has allowed Weisenburger to gloss passages of *Gravity's Rainbow* that had previously eluded him.

Don Larsson's *Companion's Companion*, as well as Ware's concordance, forms the base of the *Gravity's Rainbow* Wiki. Larsson's annotations were mainly responses to Weisenburger rather than glossing the novel and when copied over they were often explicitly marked as such by the text. For example, when glossing "the Ufa-Theatre" (*GR* 98), the Pynchon Wiki still features Larsson's annotation verbatim:

> Weisenburger's information on UFA is essentially correct, but he misgives Georg Wilhelm Pabst's first name as "Rudolf."[42]

Weisenburger has since corrected this mistake in his second edition.[43] This reference is only of historical significance, since if the reader then consulted the second edition, they would not even see the mistake. This is an acceptable position for Larsson's *Companion's Companion* for the sake of posterity, but is largely redundant in the Pynchon Wiki, since it aims to be a free and independent source. An editor could easily alter these passages to offer a quick explanation of the "Ufa-theatre". If the Weisenburger correction is essential, this could be placed on a new page dedicated to mistakes in the first edition of his *Companion*. This has not been the case thus far, but the format of the Wiki means this correction could happen at any time. The problem persists, in a slightly less severe format, later in the page-by-page commentary:

> 168.22-23 **"What did the Cockney exclaim to the cowboy from San Antonio?"** I think Weisenburger tries way too hard on this one. If you ask me, the punchline to this terrible joke is simply "Cor, Tex!" with the "cor" from the Cockney slang exclamation "Cor blimey!" and the "Tex" from the American cowboy diminutive, indicating a person from Texas.[44]

Although the annotation can stand alone, the reference to Weisenburger appears to be an editorial oversight since it requires previous knowledge of the lengthy explanation Weisenburger gives, rather than offering the annotator's personal interpretation.[45] This is only a problem with the *Gravity's Rainbow* Wiki compared to the others, particularly the meticulously referenced *Against the Day*, since they do not have established frames of reference. Furthermore, Weisenburger offers the same explanation initially, but also offers an alternative, noting it is a further reach, so this needlessly adds to the refutation of Weisenburger. The text does not always refer to the novel, but rather

to Weisenburger's *Companion*, which is problematic for the popular readership, who simply require commentary on the text, not the interpretive history, although such information could be useful on a separate page or as a footnote.

The usability of the Wiki and navigational processes are paramount to a Wiki's success. These navigational devices largely depend on the content of the Wiki. Schroeder and den Besten posit the primary purpose of the Wiki as a "secondary [work] which provide[s] a reference guide and scholarly apparatus for interpretation".[46] The references to Weisenburger and alternate meta-commentary position the *Gravity's Rainbow* Wiki occasionally as a tertiary source, but nonetheless, the volume of views to edits on the *Gravity's Rainbow* Wiki (over 180) indicates that it is being viewed by non-contributors, who are most likely students on courses that include Pynchon in the syllabus who want a basic understanding of the novel and likely overlook the meta-commentary problems. Unfortunately, without a systematic survey of users, it is impossible to gather these users' feedback on the usefulness of the site. The Wiki may be a valuable source for these users, as they simply expect a starting point for interpretation in the systematic rooting out of facts/counterfacts/motifs through the texts that then can be expanded within the wider community. Most of the page-by-page annotations cite Wikipedia pages, allowing the users to garner further context without worrying about access to content, once more positioning the Pynchon Wiki as a portal for knowledge, rather than a definitive source. Moreover, Julian Connolly – referring to Nabokov, an equally tricky author to interpret – acknowledges that "accurate annotation may help one arrive at a more accurate *interpretation*".[47] This level of reading is vital towards understanding the text on an interpretive level, and therefore, inaccurate interpretation, as Weisenburger has been accused of several times, is debilitating for interpretation. Therefore, a source that claims to be an entry level positions itself as a way to understand the basics of the text without being troubled with claims of misleading the unsuspecting reader. Furthermore, the polyphony of the Wiki and the contrast of opinions therein is a strict counterpoint to the biases inherent within Weisenburger's text. Some of the longest annotations in Weisenburger pertain to Kabbalism, post-colonialism and historical accuracy, while he generally dismisses politics. For example, Weisenburger chooses to quote "typewriters in Whitehall, in the Pentagon, killed more civilians than our little A4" (*GR* 454), while only glossing the geography of Whitehall and the Pentagon, ignoring any political or warfare-based claims. Similarly, the Pynchon Wiki equally has a bias towards pop culture and scientific material, but it has the potential to be edited by a wider range of enthusiasts. Therefore, despite being a reference guide, the interpretive agenda of the Wiki and Weisenburger are clearly on display, and this may confuse any future interpretation that is built upon the knowledge predicated by the source texts.

Moreover, on a macro level, the Wiki separates from Weisenburger's *Companion* in terms of annotation distribution. From figure 7, one can see the distribution of

annotations of *Gravity's Rainbow*'s seventy-three chapters. The Pynchon Wiki focuses heavily on the first few chapters, offering as many annotations as Weisenburger, but when one gets to the latter half of the text, although Pynchon Wiki follows the general annotative patterns of Weisenburger, it remains a lot closer to the baseline of Larsson's notes. Several contributors perhaps intend to read the text and add any additions they see, but they often lose enthusiasm around the mid-part of "Beyond the Zero". Unfortunately, due to these discrepancies the Wiki is often less helpful with tricky parts of the text later on because the probability of a reference existing decreases beyond the first few chapters. This highlights one of the problems with relying on the potential of the research commons compared to a research project supported by faculty, since an official publication on the scale of the Wiki would not be incentivized unless it evenly covered the whole text.
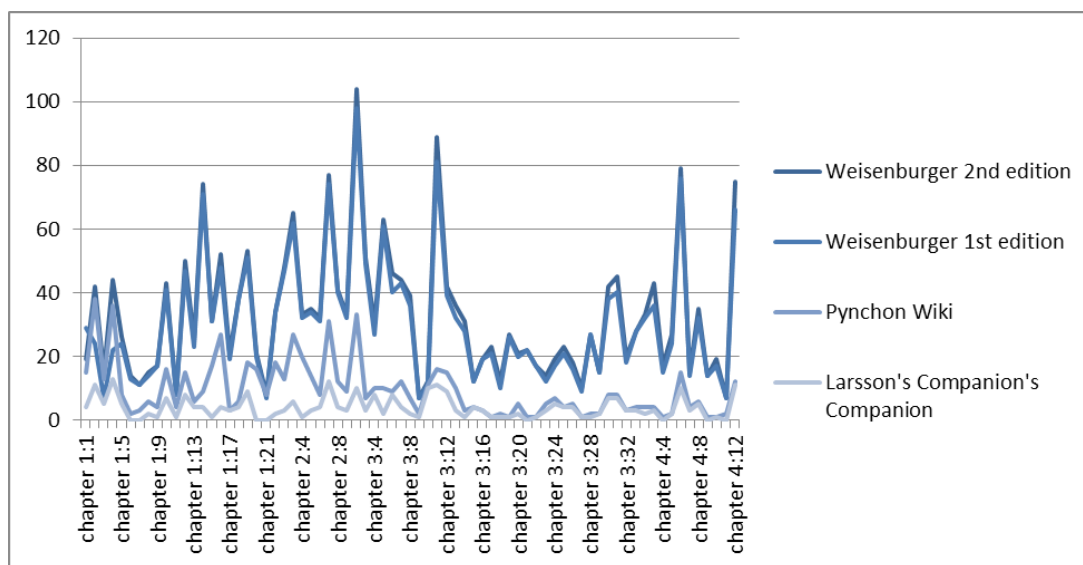

Figure 7: Comparative graph of the volume of entries per chapter of the various *Gravity's Rainbow* annotative projects

It is not just the patterns of editing that differ from previous annotation projects, but the Wiki also treats the text largely in a state of "innocence"[48] regarding the critical debates in literary criticism and specifically with regards to questions of fictionality. In this regards, the purpose of the Wiki has delineated from the expectations set out by Schroeder and den Besten, who argue:

> A Wiki can be useful here since, apart from cataloguing and elucidating these details, it could either corroborate Pynchon's research ... or it could ferret out whether he is fabricating these details. In the latter case, in turn, there are two possibilities: one is that he could reply that his fabrication is deliberate – novels are fiction, after all – but it could also be that his account or his details are wrong or implausible, which could detract from the novel and the many "local pleasures" ... that it derives.[49]

It is often overly facetious to compare every little detail in a work of fiction to reality, particularly when the source text contains a copious number of hallucinations

and regularly conjures the feeling of "ontological vertigo".[50] In these conditions, the text's instability requires certain faith in the fictionality of the novel as worlds and world-making is destabilized. If one views Pynchon's corpus as historiographical metafiction,[51] historical accuracy is not Pynchon's primary concern, and the reader can only interpret the text so far by judiciously revealing that certain references are pure fiction. Furthermore, as quoted in Weisenburger, Pynchon wrote a letter to Peter Tamony in 1966 concluding:

> I ask myself, who gives a shit anyway? What's the point of being historically accurate, nobody's going to notice one way or another.[52]

The scrutiny the academy pride themselves upon means that academics are more likely to broadcast potential historical errors given their close engagement with the text, while a popular audience can just enjoy the fictional nature of the text and gloss the parts that interest them. Take for example, Weisenburger's comments about the fictionality of *An Introduction to Modern Herero*:

> **An Introduction to Modern Herero** A fictional book. Yet what would, or does, "modern" Herero mean after modernity itself nearly wiped out the Herero people? How deeply inflected by the oppressor/exterminator would be or is the modern form of the language?[53]

Compare this with the contributors to the Pynchon Wiki's analysis:

> **536.16 a cork board... An introduction to Modern Herero, corporate histories** Probably the strongest clue in identifying Osbie Feel as some kind of representation of Pynchon himself. The author must have written *Gravity's Rainbow* with the aid of such books, notes and clutter. Quite likely. Check out this thread from a mid-90s Pynchon List discussion on this topic ... Pynchon's editor for GR was Corlies "Cork" Smith.[54]

Other than the emergent polyphony evident in this passage from the voiced "quite likely," this comparison illustrates some of the key differences between the two approaches to Pynchon's text. There is a tension in Weisenburger's annotations to tackle broader issues such as the fictionality of the novel, even though these problems may not be of interest to many readers who simply want to understand the reference. Furthermore, he then turns his interpretation to his agenda of the (post)colonial themes of *Gravity's Rainbow*. The contributors to the *Gravity's Rainbow* Wiki, on the other hand, need not be concerned about the fictionality of the source, but rather what it says about the text, and how they can tie the known Pynchon mythology (for that is all that remains of his biography) into their supposition. The contributors may take larger interpretative jumps and risks, but suggest equally interesting theories to Weisenburger's annotations that can be expanded elsewhere. One must ask, however, why there is such focus on the desk, ignoring the evidence implicating Slothrop as a Pynchon surrogate through the contents of his desk, which must have resembled Pynchon's mind, if not desk, during the embryonic years of composition (*GR* 18).[55] The page-by-page section of the Wiki completely ignores the typographic errors present in the text. There is a page specifically for typographic errors which highlights sixteen

errors, of which eleven were not noted by Weisenburger; this is an example of Eric Raymond's maxim that "given enough eyes, all bugs are shallow"[56] but it is worth noting the annotators do not over-interpret the errors they find, as Weisenburger often does. The Wiki offers a perfect example of how to present typographic errors in a hypertext format, since they can easily be found by all interested parties in a single location, while not adding unnecessary distractions to the page-by-page guide.

Furthermore, given the Wiki's position outside of the strict peer-review expectations bestowed upon the academy, the contributors to the Wiki have freedom to speculate and spot resonances within Pynchon's work. For example:

> **675.33 at best they manage to emerge ...** The description of decisions emerging from a chaos of competing forces echoes Pynchon's letter to Jules Siegel in 1965, in which Pynchon describes the journey of our souls through "whatever obsolescences, bigotries, theories of education workable and un, parental wisdom or lack of it, happen to get in its more or less (random) pilgrimage ... [sic]"[57]

The online Pynchon community are often zealous with regards to analysing apocryphal Pynchon, so links between letters and Pynchon's texts will often appear that have slipped under the radar of the academy, thus positing sources that may not have been considered by the academy. Furthermore, the *Gravity's Rainbow* Wiki offers a guide to other's interpretations, which are not available through Weisenburger, who remains a strict authoritative presence throughout his *Companion*. When discussing the significance of Hiroshima to the novel, Weisenburger simply suggests the solution the puzzle of the scraps without suggesting the significance of Hiroshima on the rest of the text:

> **V693.39 – 41, B808.40– 42, P707.23– 24 The letters / MB DRO / ROSHI** A newspaper headline, from circa August 7, 1945, announcing "ATOM BOMB DROPPED ON HIROSHIMA."[58]

Meanwhile, the Pynchon Wiki offers the following:

> **MB DRO ROSHI** When discussing GR, the writer Alan Moore recalled this sequence as "the whole point of the novel ... It's just this bit of burnt paper that, if you put it together, talks about America dropping the atom bomb on Hiroshima. Which is of course, the end of the V bomb, which has been made obsolete. *Gravity's got a new rainbow.*"[59]

Through highlighting and linking a reading of this particular part of *Gravity's Rainbow*, the Wiki introduces both a new source to follow up on, and provides an interpretation of the significance of the passage. Stating the significance of a passage may appear trivial, but it allows the reader to understand the rationale behind the annotation. When contributors posit that the bombing of Hiroshima is one of the pivotal events of the novel, the Pynchon Wiki highlights the importance of the scrap of paper, rather than note its existence purely for the sake of completeness.
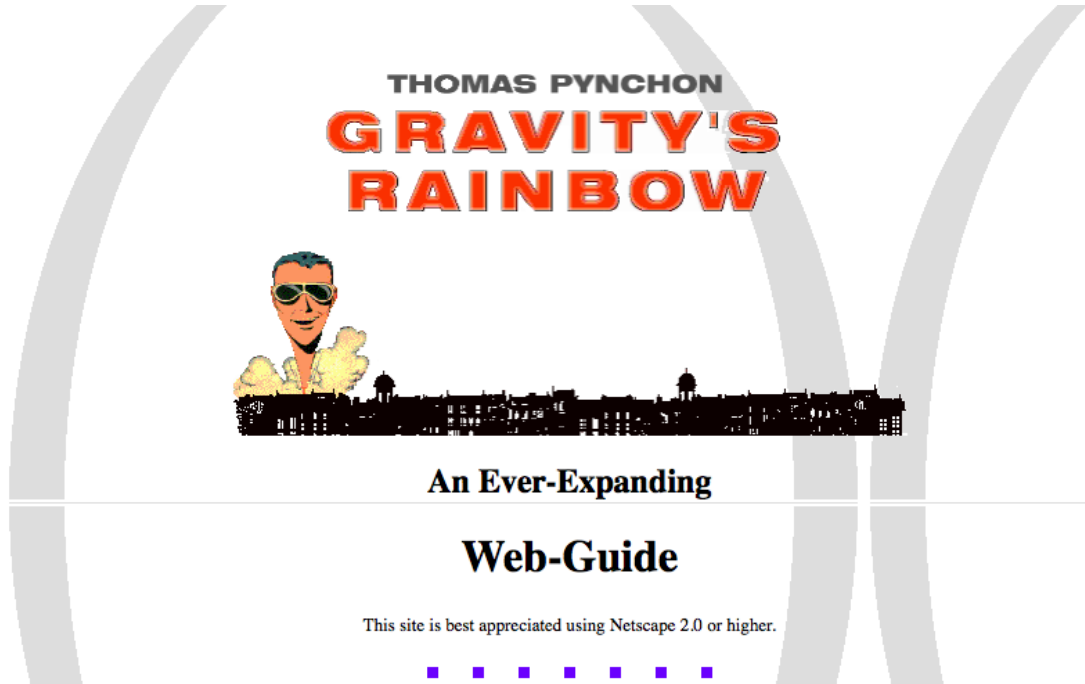
Figure 8: Tim Ware's Guide circa 1996

Although the Wiki allows for a wide range of voices and opinions, there is a disparity between the concordance and page-by page. 88% of all alphabetic annotations were undertaken by Georgeman (over the course of a month, and thus most likely following a single reading of the text) and WikiAdmin for over fifteen years (it should be noted that most of the content remains largely unchanged over this time period too). Motif- and index-based annotations are the most labour-intensive part of manual annotation, given the extra cognitive load involved in recognizing such patterns. Schroeder and den Besten also note that "in the alphabetical section, it seems commonplace that multiple entries are created at once by one contributor, which are then left untouched by others, while in the page-by-page section the most annotations and revision of the annotations seems to be going on".[60] Perhaps this is due to the cognitive overhead that people are reluctant to edit others' corrections, as well as the lack of subjectivity when one is listing page numbers containing references to love, rainbows or light bulbs. The concordance is one of the real benefits of the Pynchon Wiki, however, since it contains 50% more names than Weisenburger's updated edition, plus an extensive number of extra-textual references. A more thorough and structured linking framework between the concordance and page-by-page annotations would greatly improve the usefulness of the Wiki. Unfortunately, compared to the individual efforts typically undertaken by contributors, these improvements required a co-ordinated and non-trivial effort.

Linking practices in the Wiki

One of the general Wiki features that was highly lauded by critics for its technological and sociological potential was that of the linking potentials. For example, Brian Alexander posits that "This ambitious form of generative textuality is wholly in keeping with Pynchon's own sprawling, encyclopaedic, and digressive style. The Pynchon Wiki also represents a kind of maximum realization of the book Wiki, a very rich instance of a networked book anchored to a book".[61] This image of the liquid networked book that has frequently been the aim of hypertext scholarship is unfortunately an unrealized ideal both within the wider community and in this particular Wiki. The rest of this paper will analyse linking patterns in the Wiki and how they could improve the usefulness of the Wiki with slightly more structure and foresight. When using Wiki markup language, it becomes almost trivial to link information, so rather than have a separate index and page-by-page annontations, they can be linked, transcluded ("knowably in more than one place simultaneously,"[62] achieved in Wikis by uses of templates) or connected through MediaWiki's various paratextual navigation devices. Both parts of the Wiki have been transferred from older (Hypertext Mark-up Language) HTML sites, which traditionally have a more limited functionality for linking. Without a conscious effort on the part of contributors, the text is not as interconnected as possible and the various parts of the Wiki remain isolated. HTML, as the name suggests, is more of a design meta-language than a hypertext medium (the same could be said of Wikis, although their environment offers a more comprehensive hypertext system). It remains too easy to avoid linking and rather focus on the typographic mark-up options available. Schroeder and den Besten celebrate that "a Wiki can easily deal not only with a wide range of topics, but also with how they may or may not fit together, for example, by cross-linking more extensively than is possible with an index,"[63] but more recently, George Landow's pedagogic experiment with Web 1.0 and Web 2.0 technology has affirmed that Wikis can be counterproductive regarding linking practices, since students once more focus on the design aspects of the texts.[64]

This is demonstrated by the dissonance between the concordance and commentary. Transclusion would be useful, since once the template has been created, the information could simultaneously appear in more than one place, although there would have to be minor edits to reflect the different context. Initially, this would involve more effort, but would eventually lead to a well-rounded document, particularly if the two sections were also linked. The alphabetic concordance entry for Professor Jacob Ackeret, one of the plethora of real figures within *Gravity's Rainbow*, reads:

> Swiss rocket engineer who did the early studies of relativistic rocket mechanics, including important paper, "Theory of Rockets," Journal of the British Interplanetary Society, Vol. 6, 1947; "You have memorized Ackeret [...] But the terror will not go away" 452[65]

Yet there is supplementary information in the page-by-page commentary about the quoted passage:

> **452.39-40 Ackeret, Busemann, von Kármán and Moore, some Volta Congress papers** Jacob Ackeret, Adolf Busemann, Theodore von Kármán, Norton B. Moore: all experts on supersonic flight; 5th Volta Congress on High Speeds in Aviation, held in Rome in 1935[66]

The other names have shorter alphabetic entries, essentially referring to the same information: Busemann – "German rocket scientist; 452" -, von Kármán – "452; Expert in aeronautics and rocket-science" – and Moore – "452; Aeronautics engineer; worked with Theodore von Kármán on supersonic flow". Potentially, these could easily be linked and transcluded in all necessary locations. Once this structural work has been undertaken, any new information could be added to these meta-pages and templates and ensure that new discoveries can be transmitted throughout rather than one part of the Wiki being ignored while the other is constantly updated. The information is fragmented between two places without a link for cross-reference. Interestingly, the most well-connected trope in the novel, for that is what complete accurate cross-referencing reveals, is moustaches, which has been extensively linked by Georgeman, an example of the type of project that can easily be undertaken by a single user that demonstrates the potential of "collaboration through superposition" without disrupting other contributor's entries.

The overall pattern of linking within the *Gravity's Rainbow* Wiki suggests that the two sections (the page-by-page commentary, alphabetic concordance with related tropes pages for spill-over discourse) self-reference more than cross-reference. While the alphabetical index contains almost 300 internal references, it refers to the page-by-page commentary just four times, even though there is a large overlap between the two, due to Ware working extensively on the alphabetic indexes. Furthermore, while the alphabetic pages do not offer many external links (which it should be noted are mostly Wikipedia links), the motif pages offer a large proportion of reference links outside of Wikipedia, often since these pages link to freely available source texts. The page-by-page, on the other hand, is more evenly distributed between internal and alphabetic references. Many of the page-by-page external links are to Wikipedia, and on some pages, every reference ends with a Wikipedia entry, thus allowing readers to begin exploring the topic in more detail. The page-by-page is also the only place that a substantial number of cross-references to the other Pynchon Wiki, thus explicating themes in all of Pynchon's corpus rather than just focusing on one text. From this distribution of links, one can clearly see that the contributors could use the facilities of the Wiki in a much more effective way. This does not have to involve the more structured approach of linking that would distinguish the Wiki as an electronic text. The Wiki's space is only limited by the cost of server space, and there is no limit on the number of pages, so contributors could easily experiment with new methods for arranging the information. Unfortunately, this rarely happens, and annotations are mainly kept within the confines of the structures already

in place. Only four pages pertaining to motifs were not started by Tim Ware: Proverbs for Paranoids, Quaternion, Remato Commentary and Sodium Amytal. Therefore, one can see that contributors often amend and add to stubs rather than alter the pre-existing structure. Structure and internal linking practices appear to be secondary to the actual content, which is to the Wiki's detriment, given the technology available and under-utilized.

Conclusion

While the Pynchon Wiki only represents one of the earliest attempts of using a Wiki in order to annotate a novel both synchronously in the case of new novels and through superposition with Pynchon's older texts, it has shown some hope towards developing a future literary ecosystem based on Wiki software. Currently, however, there has not been a momentous paradigm shift towards this type of collaborative work online. The small number of contributors who are active over an extended period of time add worthwhile entries to the Pynchon Wiki, but one of the major problems is their lack of communication with each other. It is apparent that there is not a diligent level of scrutiny for each entry, and editors are more concerned with accumulating knowledge rather than refining existing entries. Furthermore, there is currently a technology discrepancy with the potential for linking within the Wiki, and the patterns of linking already present. Despite these current problems, fortunately through careful use of the "many eyes" of the Wiki's users and with the right level of enthusiasm, all problems can be resolved swiftly, and there is hope from the Wiki's past that there will be a collaborative effort towards a satisfactory Wiki, either through a new group effort or the continued individual efforts of contributors undertaking tasks that are easily achievable within a reasonable timeframe.

End notes

1. Weisenburger (2006), p. 12.

2. As of October 2011. All graphs and figures reflect this date range.

3. DiNucci.

4. O'Reilly.

5. Schroeder and den Besten, p. 168.

6. Ware et al. (2009).

7. Ketzan et al. (2007). It should be noted that Erik Ketzan was the other co-architect of Pynchon Wiki. This original website has since suffered the fate of being spammed and the annotations now reside at Literary Wiki (Ketzan et al 2007), highlighting the ephemeral nature of Wikis.

8. Finnegan et al.

9. Ketzan et al. (2007).

10. See Leving et al.; Farabaugh.

11. Schroeder and den Besten, p. 183.

12. Leving.

13. Kirschenbaum, p. xvii.

14. Fish, p. 483.

15. Ware et al. (2006).

16. Raymond, p. 19.

17. Fitzpatrick, pp. 15–48.

18. Reagle Jr., p. 110.

19. Bérubé, p. 297.

20. Vandendorpe, p. 74.

21. Boot, p. 35; Kohn, p. 80; Wilhelmus; den Besten; Adamson; Fry and Schroeder; Schroeder and den Besten; Alexander, p. 139.

22. Kantola; Battesti; Richard Hardack, p. 128; Paugh; Cvek, p. 214; Severs and Leise, p. 237.

23. Elias, p. 136.

24. Duyfhuizen, p. 73.

25. Weisenburger, pp. xi, 394.

26. Weisenburger, pp. 24, 39 and *passim*.

27. Schroeder and den Besten, p. 169.

28. This graph was calculated by working out the average output over the five year output from 2006-2011, and then using that as an index figure against the output of the particular year.

29. Schroeder and den Besten, p. 172.

30. Quoted in Reagle Jr., p. 50.

31. http://www.thomaspynchon.com and http://www.themodernword.com.

32. Tölölyan, Leighton, and Duyfhuizen.

33. Shirky, p. 118.

34. Schroeder and den Besten, p. 180.

35. Howison and Crowston.

36. Schroeder and den Besten, p. 174.

37. Schroeder and den Besten, p. 173.

38. Howison and Crowston, p. 41.

39. Weisenburger, p. vii.

40. Howison and Crowston, pp. x-xi.

41. Teague.

42. Larsson; Ware et al. (2006).

43. Weisenburger, pp. 77-8.

44. Ware et al 2006.

45. Weisenburger, p. 115.

46. Schroeder and den Besten, p. 170.

47. Connolly.

48. I use the term in a purely neutral sense, and certainly not as a charge of naivety or critical oversight.

49. Schroeder and den Besten, p. 170.

50. Alter, p. 6.

51. Hutcheon, *passim*.

52. Quoted in Weisenburger, p. xii.

53. Weisenburger, p. 281.

54. Ware et al. (2006).

55. Weisenburger notes this but does not suggest this is evidence of Slothrop being a Pynchon surrogate.

56. Raymond, p. 19.

57. Ware et al. (2006).

58. Weisenburger, p. 354.

59. Ware et al. (2006).

60. Schroeder and den Besten, p. 176.

61. Alexander, p. 129.

62. Nelson, Smith and Mallicoat, p. 227.

63. Schroeder and den Besten, p. 171.

64. Landow, p. 307.

65. Ware et al. (2006).

66. Ware et al. (2006).

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