

BACHELOR OF ARTS IN MULTIMEDIA STUDIES
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**UNIVERSITY OF THE PHILIPPINES
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BACHELOR OF ARTS IN MULTIMEDIA STUDIES

CHRISTIAN PAUL R. VELO

**A HOME FOR PSYCHOTIC DEPRESSION: BUILDING A PERSONAL
KNOWLEDGE BASE FOR MEANING-MAKING IN OBSIDIAN**

Research Adviser:

SHARI EUNICE T. SAN PABLO
Faculty of Information and Communication Studies

21 September 2025

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This paper prepared by **CHRISTIAN PAUL R. VELO** with the title: “**A HOME FOR PSYCHOTIC DEPRESSION: BUILDING A PERSONAL KNOWLEDGE BASE FOR MEANING-MAKING IN OBSIDIAN**” is hereby accepted by the Faculty of Information and Communication Studies, U.P. Open University, in partial fulfillment of the requirements for the degree Course.

DR. SHARI EUNICE T. SAN PABLO, PhD
Adviser

(Date)

DR. BENIGNO B. AGAPITO JR., DComm
Program Chair

(Date)

DR. ROBERTO B. FIGUEROA JR., PhD
Dean
Faculty of Information and Communication Studies

(Date)

Biographical Sketch



Christian Paul R. Velo is a Bachelor of Arts in Multimedia Studies student of the University of the Philippines Open University from 2020 to 2025. Before shifting to Multimedia Studies, he studied a Bachelor of Arts in Sociology at the University of the Philippines Los Baños from 2018 to 2020, where he completed coursework in abnormal psychology, which continues to inform his creative praxis and critical approaches to mental health.

Christian's work spans writing, new media art, and transmedia storytelling, with a special interest in emerging technologies. He previously worked as a freelance scriptwriter for long-form tutorials on web design software and provided various editing services for several clients. Across his projects, he explores recurring themes of love, horror, and the human condition.

Acknowledgments

I express an unfaltering sense of thanks and gratitude...

for willingly bearing witness to my humanity.

for being able to forgive again and again.

for inspiring me to become a better man.

for a fulfilling brotherhood.

for sparking my creativity.



for lovingly holding me accountable, when I fall short.

for teaching me that kindness requires strength.

for making distance learning feel alive.

for your unrelenting care!

for nourishing my spirit.

for supporting my dreams!



for your support, guidance, and trust as my adviser.

for giving me money!

for bringing the best out in me.

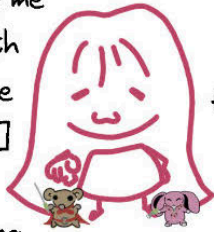
for listening to my stories.

for making this project possible.

for giving me gifts!!

for loving me, and letting me love you.

for giving me the strength to choose myself :]



for the silly rats!



for the past 3 years and counting, I feel like I have found my people.

for your many libre!!!

for everything I have not yet found the words for.

for being weird with me!

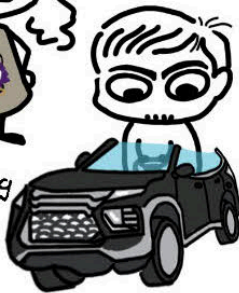
for the barbecue sausages.

for being my first audience.



for your delicious egg fried rice.

for teaching me the Word.



for running with me everyday!

for your sacrifices which are and will not be in vain.

for raising me well.



to the Ramos Family
to Sir Jairus,
Sir Dave

to God,
your nature,
providence,
and will.

to Monster Hunter

to Hevel

to Obsidian

to Prof. Mendoza,
Prof. Pabon

to H.

to SAGIP

to Army Navy

to Marcus Aurelius

to Billy Joel

to B/G

to the Gam sunlight

to the Discord calls

to Dr. Palis

to Ate Imma

to Steven Pressfield

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Abstract

This project outlines the creation of a multimedia prototype for an interactive digital environment that supports meaning-making, particularly in the context of psychotic depression, where meaning-making is severely compromised. The prototype comes in the form of a personal knowledge base (PKB) that captures and explores situational meanings and facilitates assisted meaning-making. The PKB was produced through techniques adapted from personal knowledge management — such as *Johnny.Decimal*, the *Slip-box Method*, and *Maps of Content* — and insights formed from my lived experience with psychotic depression, including a private dataset containing my firsthand account of the condition and other personal information.

The methodology employed for the project is an iterative design approach that employs Obsidian third-party plugins, CSS, JavaScript, and Python to extend the functionality of the default Obsidian vault into a PKB optimized for meaning-making. Each iteration was documented using a changelog with semantic versioning. The methodology is rooted in the proposed Multimedia Meaning-making Model for Psychotic Depression (M4PD), a novel integrative framework derived from *Hyper-meaning* (van Os, 2014), *Kegan's Theory of Meaning-making* (Kegan et al., 1982; Kegan, 1994), and the *Meaning Making Model* (Park, 2022).

The project spanned an estimated 1 year, with the latest version of the PKB at Version 2.2.0. The PKB has multiple features that collectively enable the streamlined capture and exploration of situational meanings — which are excessive in states of psychosis — and facilitate assisted meaning-making, which addresses the disruptions to global meaning caused by depression.

It is to be noted that the PKB successfully produced a topological network of over 12,000 nodes, comprised of entries about psychotic depression and my personal life from 2018 to 2025, suggesting an emergent yet unrefined map of my meaning-making. The results presented in this project are part of an ongoing, larger effort to develop an interactive digital environment for supporting meaning-making. The project concludes with a call for a future product, unique enough to warrant its own designation — the Personal Meaning Base or PMB.

Keywords: Personal Knowledge Base; PKB; Psychotic Depression; Meaning-making; Obsidian; Multimedia Meaning-making Model for Psychotic Depression; M4PD; Personal Meaning Base; PMB; Personal Knowledge Management; PKM; Personal Knowledge Graph; PKG; Meaning Making Model; Hyper-meaning; Robert Kegan; Johnny.Decimal; Slip-box Method; Zettelkasten; Maps of Content; MOC; Iterative Design; Semantic Versioning; Interactive Digital Environment; Firsthand Account of Mental Health Conditions; Mental Health; Abnormal Psychology; Multimedia Studies

Statement from the Author

As early as my clinical history and memory could agree, I was ten when grayness began its extended stay, often unprompted, requiring no reason to be, it just was. It did not warrant my notice as it was only incubating. At times, it would pulse, and those days were bleak. This grayness was a barren feeling that kept coming back, almost as if it had a rhythm.

The rhythm continued its tempo until I was around eighteen years of age, then it began tuning itself to red, producing songs of violence and despair. I danced to its melody, lost myself in the process; self-harming became my performance. There were cuts, cigarette burns, ruptured bonds, a fixation on alcohol and antihistamines, and then a suicide attempt. And another. Another still.

This prompted the introduction of a clinician. She introduced me to these resonant colors. She gave me a name — Major Depressive Disorder with Psychotic Features. But even though I was made aware of the symphony, I was still bound by years of learned futility. I struggled against it; *nothing works*, gray turns red again.

A few months later, the red tracks culminated in a crescendo of unreality. The depression-induced psychosis made the sky cruel. I was unable to make sense of things as they are and as they occurred. Incoherence with a theme of guilt, isolation, and depravity pervaded my psyche until it bore edges and protruded from my skin. My bones itched.

At the behest of the deafening cacophony, I pierced my eardrum, scratched my sclera, and strangled myself in repeated bursts. The chorus sang blistered thoughts and gave way to ritual: kisses of broken glass, tally marks cut into skin, a blood-seeping slit across the abdomen, with the familiar touch of killing myself.

This time, though, it all collapsed into nothing.

A note that swallowed every color.

At a distance, the coda arrives. I was hospitalized and medicated to static oblivion; silence and numbness gave birth to days that felt like hours. Interaction is controlled, and the air is monotonous. It was, in some ways, a comfortable limbo, for there was no more music.

There came a morning when I found myself deadpan in an infirmary bed, facing the window. Birds chirping, light traffic, and sunlight peeking across the blinds. In solitude, I found the space to begin anew.

I voluntarily requested to be discharged against medical advice with the intention of regaining control. I still took antipsychotics and antidepressants, and over time, have made great strides in my recovery. The path to being better is winding and unpredictable, but I have fought tooth and nail to press on.

I made significant lifestyle changes to survive, which just happened to coincide with the pandemic. As a result, I had found myself in even more challenging corners between the devil and the deep blue sea. By October 2020, however, the last piece of antidepressant had graced my presence, with antipsychotics finished months back. Thus, at the end of the decade — through the grace of God, the mercy of kindness, the genius of psychiatry, and the indomitable will of the human spirit — I had made a full recovery, not with the absence of pain but a new relationship with it.

I developed a belief that **pain, once understood, gives great strength**. It has brought me closer to those who suffer, and allowed me to become a lover of my fate — to burn even brighter no matter the direction the wind blows, fueling my spirit with everything that is cast into me.

This has been the ongoing tale that is my life. It is my sincere hope that my efforts will make it easier for those who will come after me. However, to speak of this experience in my own language is one thing, but to place it within the broader discourse is another.

Many have grown accustomed to equating psychotic depression with the image of a dejected lunatic, largely because first-person accounts are scarce in comparison to sensationalized portrayals. The few that exist vary so widely that they are often reduced to a generalized notion of incoherent thought. Contrary to this belief, however, my own history has taught me that psychotic depression is not evidence of a deteriorated mental faculty. Its defining feature, *hopeless insanity*, is not an innate character trait but rather is a by-product of failure to find space for meaning-making amidst trauma and overwhelming distress. As Viktor Frankl (1946/2006, p.15) puts it, “an abnormal reaction to an abnormal situation is normal behavior.”

This clarification diminishes the stigma associated with the condition and, in the context of traditional media and multimedia art, allows for better representation. However, to give an account of psychotic depression is very difficult. There is a stark difference between those that are true and those that are true only to the person experiencing it. The discussion of only the former is the decontextualization of the whole, and to discuss with the latter is to write in conflicting prose and commit temporal fallacy.

There is a need for a space to hold both gracefully, to represent one and the other in a map, not with precedence or linearity, but with a gestalt perspective. The task is not to define a baseline reality that conforms to public truths. It is to internally

make sense of phenomena as they unfold, to understand their origins and development, and to learn how to manage them until functional capacity is restored.

Briefly put, the goal is less about finding a cure or determining what is “real” and more so creating a space for our understanding. In the context of multimedia technology, this means that the challenge is not the mind of the person itself, but the lack of a medium for it. What is needed is a medium with the capacity to display, understand, and humanize conflicting truths — to capture what escapes us, to hold *pain that refuses telling*, to create a *home for psychotic depression*.

I. Introduction

Rationale

Clinically referred to as Major Depressive Disorder with Psychotic Features, psychotic depression is a severe subtype of depressive disorders, wherein the intensity of depressive symptoms gives rise to psychotic features. It is characterized by a sad, empty, or irritable mood that significantly impairs the functional capacity of an individual, accompanied by delusions or hallucinations (American Psychological Association [APA], 2022).

Delusions are “fixed beliefs that are not amenable to change in light of conflicting evidence” (p.101), while hallucinations are “perception-like experiences that occur without an external stimulus” (p.102). The most common type of hallucination in psychotic depression is an auditory hallucination, more commonly known as the phenomenon of *hearing voices* (APA, 2022). For clarification, psychosis is a symptom, while psychotic depression is a mental health condition that includes psychosis. Schizophrenia and psychotic depression are two different mental health conditions.

Present research dictates that meaning plays a significant role in the development of mental health conditions like psychotic depression. Individuals are seen as active meaning-makers whose appraisals of experience with a mental health condition shape its manifestation and, consequently, its course (Bekhuis et al., 2019; Healy et al., 2022; Stanghellini et al., 2013).

The feeling of perplexity, following a psychotic experience, is mediated by an individual’s appraised meaning of it (Ritunnano et al., 2021). In a study by Woods and Wilkinson (2017), they gathered data on individuals who had psychotic experiences. They found that those who did not seek clinical attention described

their psychotic experience as either spiritual, everyday normality, or impersonal. However, the participants who were from a clinical background interpreted their experience as disturbing, threatening, and personally directed. Appraisals of the psychotic experience, comprised of the psychotic event and their reaction to it, are therefore essential in how they are lived and understood (Woods & Wilkinson, 2017).

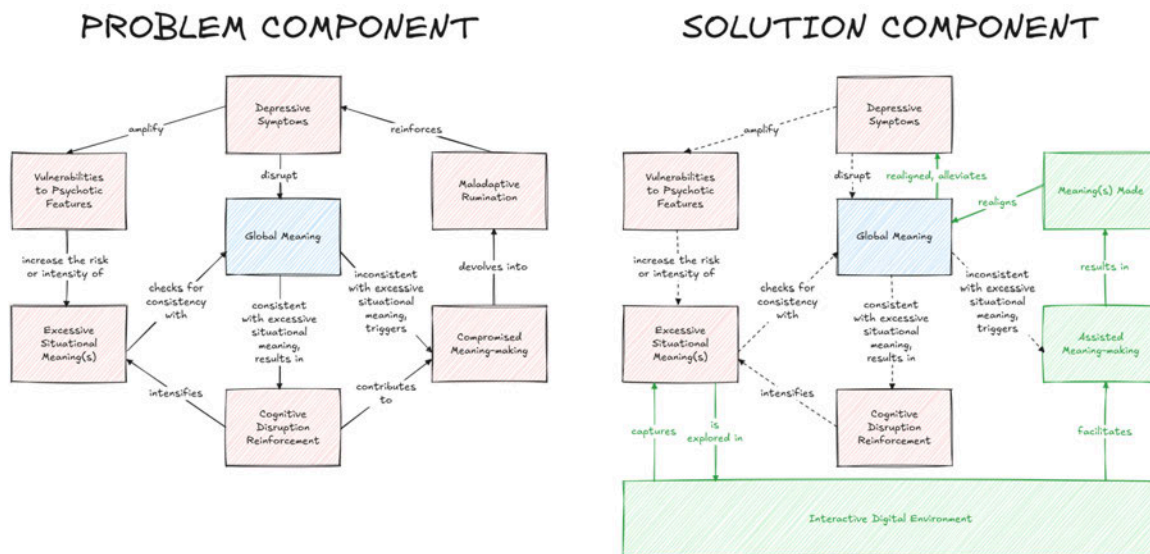
Similarly, individuals who exhibit depression, whether clinical or emotionally felt, seek meaning in their experience by relating it to an external circumstance or as an internalized disruption (Lewis, 1995). Bendassolli (2024) further adds that the lack of a subjective sense of meaningfulness may increase the likelihood of exhibiting depressive symptoms. When individuals are not able to build meaningful experiences in their environment, their actions become disconnected from their sense of purpose. This increases the risk of developing a debilitating level of sadness, emptiness, or irritability (Bendassolli, 2024).

Given all this information, it can therefore be strongly suggested that it is important that meaning-making occurs in psychotic depression. However, much to my disadvantage, there is no fitting framework that fully captures meaning-making in the said condition, especially within a multimedia context. To address this, I propose a novel integrative framework — the **Multimedia Meaning-Making Model for Psychotic Depression (M4PD)**.

It is a framework composed of two components that are similar in structure: the problem component and the solution component. **M4PD's Problem Component** demonstrates compromised meaning-making in psychotic depression through interconnected feedback loops that exacerbate the condition. **M4PD's Solution Component** introduces an interactive digital environment designed to address these challenges by facilitating assisted meaning-making.

Figure 1

Zoomed-out view of the Multimedia Meaning-Making Model for Psychotic Depression (M4PD)



M4PD is derived from existing concepts, namely *Hyper-meaning* (van Os, 2014), *Robert Kegan’s Theory of Meaning-making* (Kegan et al., 1982; Kegan, 1994), and the *Meaning Making Model* (Park, 2022). The full derivation process is present in the theoretical framework section of this project.

Meaning is the building block of how we construct and interpret our own approximation of reality (Baboulene, 2020), and in M4PD, it is categorized into two distinct types: situational meaning and global meaning. The term “situational meaning” is adapted from the Meaning Making Model by Park (2022), with the term “global meaning” directly borrowed.

Situational meaning is the by-product of mediation between an external stimulus or internal thought and our reaction to it (Kegan et al., 1982; Kegan, 1994; Park, 2022). It is the “appraisal of an experience” (Park, 2022, p.1). For example, upon receiving a text from a close friend (external stimulus), an individual may feel reassured (reaction), which they may interpret as a sign of care (situational

meaning). Conversely, recalling a past mistake (internal thought) elicits feelings of shame (reaction), which is appraised as personal inadequacy (situational meaning).

This means that external stimuli or internal thoughts do not have meaning within themselves. They require first to be interpreted by a meaning-making process that each individual employs (Ignelzi, 2000; see also Kegan et al., 1982). Our meaning-making process is largely influenced by our **Global Meaning**, which “encompasses [our] foundational beliefs, values and goals, and a subjective sense of meaningfulness” (Park, 2022, p.1). In addition, meaning-making is also influenced by family history and cultural background (Ritunnano et al., 2021) and also includes our physical bodies (Orphanidou et al., 2023).

In other words, humans themselves are the context that meaning-making requires — to continually create meaning is to be a human being (Ignelzi, 2000; see also Kegan et al., 1982). Baboulene (2020) and Ritunnano et al. (2021) strongly suggest that meaning-making, the act of self-interpretation that constantly changes over time, is a core human function. It is as universal as the desire to live a self-defined, meaningful life.

An operational definition is provided for **meaning-making**. It is the reappraisal of situational meaning (Park, 2022). It occurs as a response to the distress that an individual experiences when their situational meaning from a particular event is inconsistent with their global meaning (Park, 2022).

Consider the case of an individual who strongly values being self-sufficient (global meaning). Due to unfortunate circumstances, they lost their job, interpreting their experience as a threat to their personal competence and sense of independence (situational meaning). As a result, they feel distressed since their global meaning is violated by an inconsistent situational meaning. This motivates

them to engage in meaning-making activities that reinterpret the situational meaning to fit the mold of their global meaning (Park, 2022), e.g., seeing the job loss as an opportunity to pursue a more fulfilling career path.

The act of reinterpretation that the individual utilized in the example resulted in the reduction of inconsistency between their situational meaning and global meaning. This state of successful discrepancy reduction is referred to as **Meaning(s) Made**. It is the restoration of balance within an individual's global meaning in relation to the event they just experienced (Park, 2022). Meaning Made can be in the manner of positive reappraisal, that is, describing the experience in the context of growth, gratitude, or not as harmful as initially appraised (Park, 2022). It can also be in the manner of changing the global meaning to accommodate the situational meaning (Park, 2022). Changes in global meaning are used in circumstances that are significantly difficult, such as trauma, wherein an individual's goals in life, perspective, or their subjective sense of meaningfulness change in light of new knowledge from reappraising their situational meaning (Park, 2022).

It is to be noted that the discrepancy between situational and global meaning can be addressed through other coping mechanisms (Park, 2013; see also Aldwin, 2007). Still, it is meaning-making that remains the most adaptive — especially in situations that cannot be addressed by problem-solving, such as the loss of a loved one or the diagnosis of serious illness (Park 2013; see also Park et al., 2001).

This adaptability underscores why psychotic depression is very concerning, where meaning-making, as versatile as it is, is severely compromised. One of the main mechanisms underlying the condition, which are psychotic features, can be thought of as expressions of **excessive situational meaning(s)** (van Os, 2014). By linking psychosis to cognitive functioning just as depression is linked to emotion, Van

Os (2014) and colleagues described psychosis as the excessive production of situational meanings, in which ordinary external stimuli or overpowering internal thoughts become distorted and expressed as altered behavior.

In this sense, delusions are distortions in human sensory perception that can be caused by powerful emotions, traumatic events, or Cannabis use (van Os, 2014). For instance, an individual with a violent childhood may develop a belief that the world is extremely dangerous (global meaning) and, consequently, interpret that a television advertisement is trying to send them a message about an incoming danger (excessive situational meaning). This distortion can also come in the form of extremely overwhelming thoughts that the individual perceives as external stimuli, like outside voices or visual apparitions — these are hallucinations (van Os, 2014).

Taking into account what has been discussed above, the relationship between psychosis as excessive situational meanings and compromised meaning-making can be suggested. The persistent inconsistency between excessive situational meanings and the global meaning overwhelms the process of meaning-making, leading to its compromise. The dissolution of what is thought, understood, and believed to be true produces an “all-enveloping sense of unreality” (Ritunnano et al., 2021, para. 8). This results in marked disorientation and persistent uncertainty in meaning-making (Ritunnano et al., 2021).

In addition, it is important to remember that, in the context of psychotic depression, psychosis only emerges once severe depressive symptoms are already present (APA, 2022). In the course of the condition, these depressive symptoms are the first to compromise meaning-making by making it difficult across various aspects of life. For example, Anhedonia, the inability to experience pleasure, inhibits meaning-making in leisure activities (Nagata & Kono, 2022). Thus, by the time

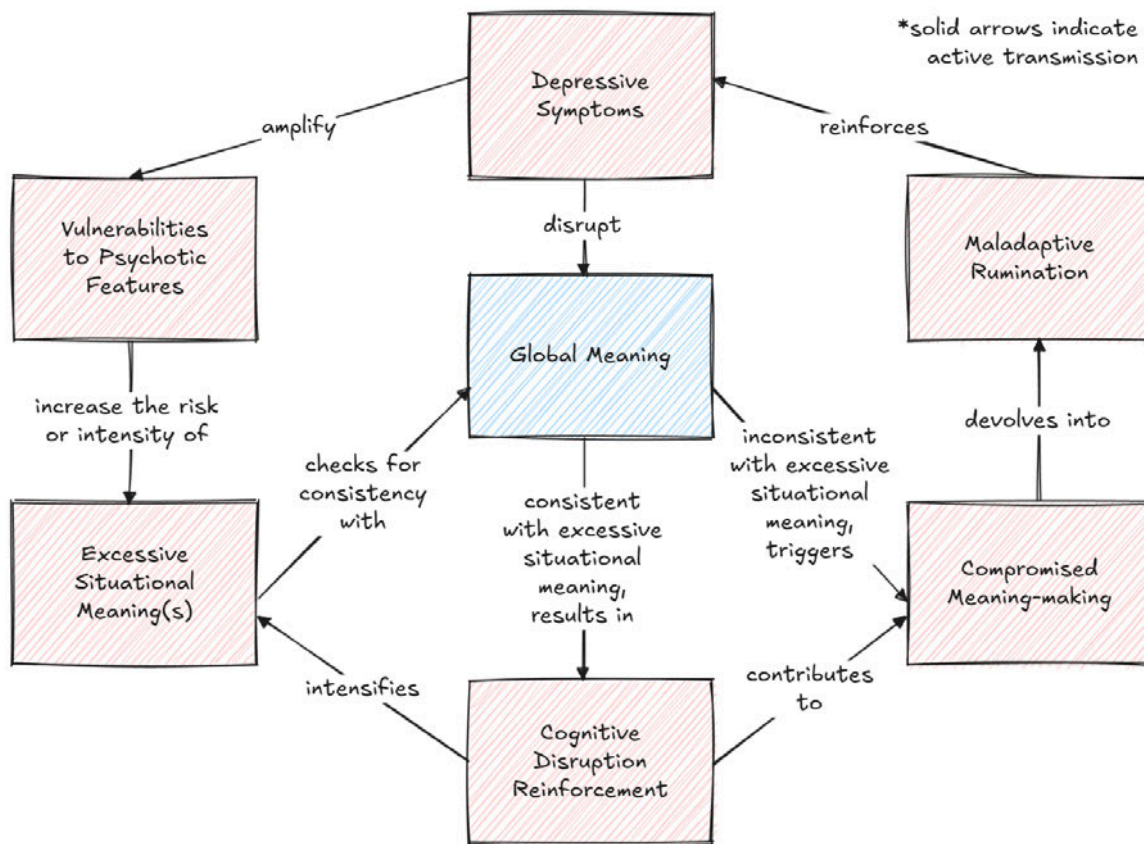
psychosis begins to emerge, the inconsistency with global meaning is already processed through compromised meaning-making.

What follows after compromised meaning-making is a state of stagnant unproductivity. The continued inability to integrate the discrepant situational meaning with the global meaning results in **maladaptive rumination** (Park, 2022). Trying to continually think of things that are inconsistent with what we believe in, and not being able to produce new meaning from it, results in repetitive negative thinking that worsens into a downward spiral. This makes the act of rumination a reinforcer for the already severe **depressive symptoms** (Park, 2022; see also Huang et al., 2021; Zakarian et al., 2019). These symptoms, in turn, amplify the vulnerabilities of an individual to psychosis — directly informing the nature of their psychotic experience in most cases (APA, 2022) — thus, creating a cycle.

Another concerning consequence of the debilitating level of sadness, emptiness, and irritability is the detachment from a sense of meaningfulness in life (APA, 2022; see also Bendassolli, 2024). This significantly disrupts an individual's global meaning and, consequently, may make it more aligned with the excessive situational meanings that shape it. Once the disrupted global meaning reaches a critical point, wherein it is consistent with the excessive situational meanings, the cognitive distortions are further reinforced. If unmitigated, this leads to insanity or, in the worst-case scenario, suicide (APA, 2022).

By integrating all the discussions above, it becomes possible to outline the interconnected feedback loops in psychotic depression. There are two ordered layers of loops. The first loop occurs during the first few psychotic experiences arising from severe depressive symptoms. The second occurs much later, with solid arrows indicating active transmission of reinforcement from previous loops.

Figure 2
MAPD's Problem Component



The first feedback loop of the condition goes as follows:

- 1) Depressive Symptoms amplify (2) Vulnerabilities to Psychotic Features, which include genetics, powerful emotions, traumatic events, or Cannabis use.
- 2) Vulnerabilities to Psychotic Features increase the risk or, if already present, the intensity of (3) Excessive Situational Meanings. These excessive meanings are expressed by the individual as psychotic features.
- 3) Each Excessive Situational Meaning, as it occurs, is automatically checked by the individual's mental process for consistency with their (4) Global Meaning.

- 4) At this early stage of psychosis, Global Meaning is inconsistent with the perplexity of the excessive situational meaning. This inconsistency triggers — and, if persistently repeated, overwhelms — an already (5) Compromised Meaning-making due to depression.
- 5) Compromised meaning-making, continually unsuccessful at reappraising the excessive situational meaning, devolves into (6) Maladaptive Rumination.
- 6) Maladaptive rumination reinforces (1) Depressive Symptoms. Cycle Repeats.

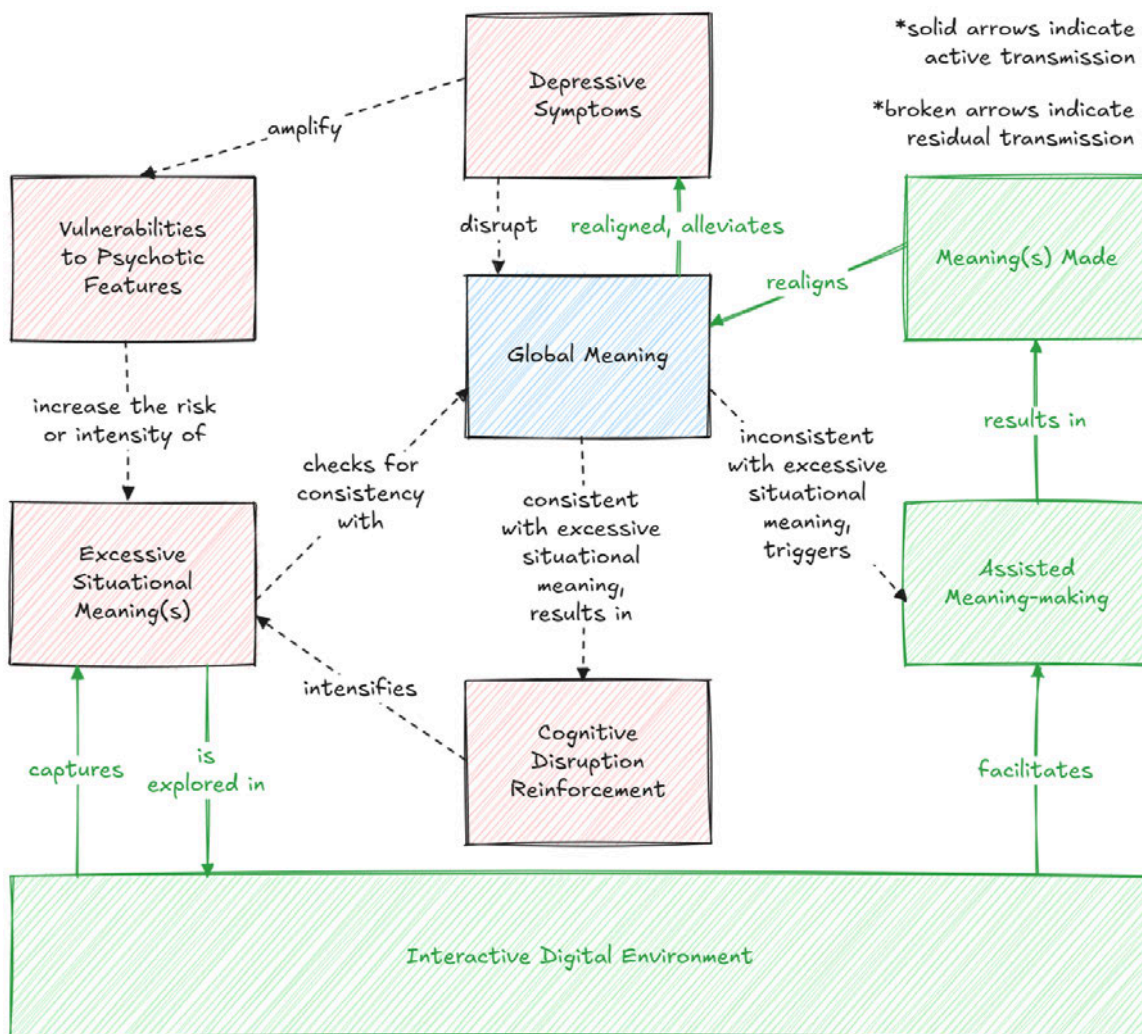
If the condition worsens, the second feedback loop proceeds as follows:

- 1) Depressive Symptoms continue to disrupt (2) Global Meaning.
- 2) The disrupted Global Meaning, now consistent with the excessive situational meanings that shaped it, results in the (3) cognitive disruption being reinforced.
- 3) Cognitive Disruption Reinforcement intensifies (4a) Excessive Situational Meanings and contributes to (4b) Compromised Meaning-making.
- 4) (or 4a) Each Excessive Situational Meaning, as it occurs, is automatically checked by the individual's mental process for consistency with their (5) disrupted Global Meaning.
- 5) If there is a consistency, the cycle loops steps 2 to 5. If there is a discrepancy, it triggers (6) Compromised Meaning-making.
- 6) (or 4b) Compromised Meaning-making continues to devolve into (7) Maladaptive Rumination

7) Maladaptive Rumination reinforces (1) Depressive Symptoms. Cycle Repeats.

As shown in these feedback loops, psychotic depression is a vicious cycle between psychotic features as excessive situational meanings, and depressive symptoms. Left unchecked, it escalates to increasing severity, progressive difficulty in meaning-making, reinforcing cognitive distortions, and heightening the risk of functional collapse (APA, 2022). To address this, I propose an interactive digital environment that facilitates assisted meaning-making in psychotic depression.

Figure 3
MAPD's Solution Component



The solution component of M4PD replaces the rightmost blocks in the feedback loop, attenuating the reinforcing cycle between depressive symptoms and psychotic features. Since reinforcement is no longer sustained between the unaltered blocks, their relationships are represented by broken arrows, which indicate only residual transmission in contrast to the active solid arrows.

The introduced block at the bottom, the **Interactive Digital Environment**, is a multimedia product that captures excessive situational meanings and provides a platform to explore them. From this, it enables digitally-assisted meaning-making and, if successful, results in a state of Meanings Made. It is also to be noted that even the automatic discrepancy check in an individual's mental process benefits from the assisted meaning-making, since inconsistencies are no longer being reappraised through a compromised system.

The reappraised situational meanings from the state of Meanings Made are integrated into the disrupted global meaning, enabling its realignment. This further helps build a subjective sense of meaningfulness, along with stronger beliefs or new goals, which alleviates the depressive symptoms (Bendassolli, 2024).

Once the depressive symptoms are alleviated and excessive situational meanings, as psychosis, are captured and explored, the entirety of the feedback loop is significantly diminished. Although the interactive digital environment does not cure psychotic depression, it can be suggested that its successful implementation allows for better understanding of the condition's experience, its origins, and long-term self-management. These outcomes are equally important and can be adapted to a variety of conditions and situations beyond psychotic depression.

Furthermore, it is essential to address the cycle of feedback loops in psychotic depression and difficulties in building meaning because there is a wide consensus

that **hope**, in the context of being produced from meaning-making, is foundational to recovery, post-traumatic growth, and long-term well-being (Mazor et al., 2016; Mazor et al., 2020; McCarthy-Jones et al., 2013; Moritz et al., 2018; van Os, 2014; see also McConnell, 2023).

Over the past seven years, I have made multiple attempts to develop the interactive digital environment that I have discussed. It began in 2018. I already had a habit of maintaining personal journals at this point. Each journal contained my life plans, story ideas, philosophical musings, and more. This is why it naturally came to me to write everything I possibly could on my experience with psychotic depression.

Even at many times when I felt what I wrote was incoherent, I was motivated to keep on writing in hopes that it would prevent my condition from transitioning to insanity, and that one day I would be able to create a coherent map of my experience. By providing a unique perspective not born of theoretical study but based on a firsthand account, I could also help others who may experience a psychotic, depressive, or both types of episodes at some point in their lifetime.

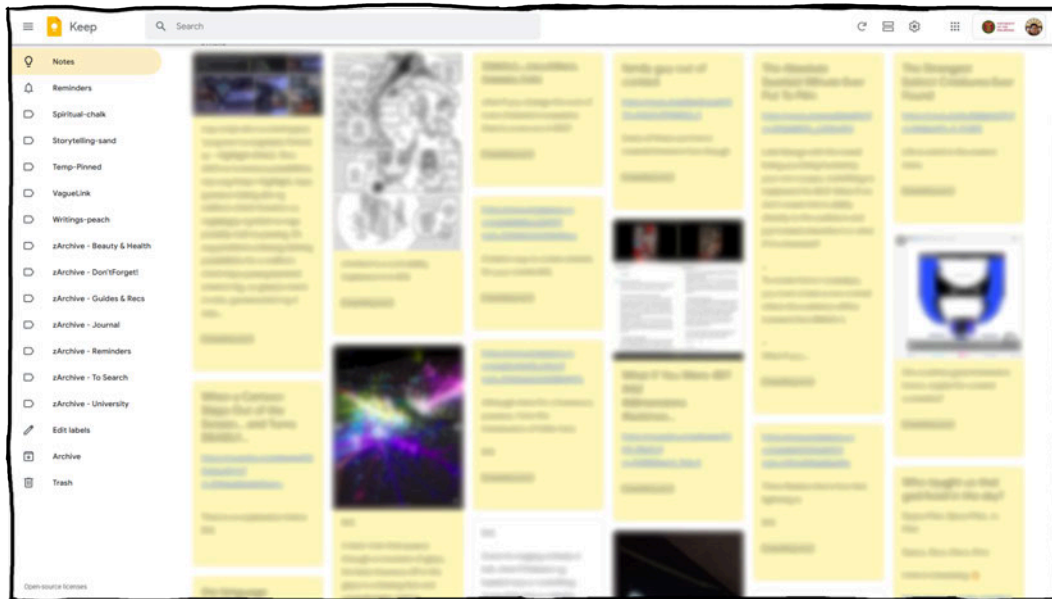
Oftentimes, however, I encountered difficulty in reading my own handwriting. There were also moments when I could not find the journal that I was writing in, or in which journal I had written an idea that I was looking for. These issues made it difficult for me to expand and revisit my thoughts. As such, I pivoted my efforts to multimedia technology.

I started with the local note-taking application on my smartphone, but ended up choosing Google's note-taking service, aptly named **Google Keep**, for its ease of use and cross-platform accessibility. The default user interface of Google Keep is a multi-column view of the user's notes. Seeing multiple entries at once allowed me to draw imaginary lines of connection between them. By thinking of these connections,

I was able to come up with more entries. This is where I got the idea of how the design of knowledge management, whether in traditional media or digital applications, can be used to facilitate assisted meaning-making.

Figure 4

Google Keep's multi-column view and my blurred notes



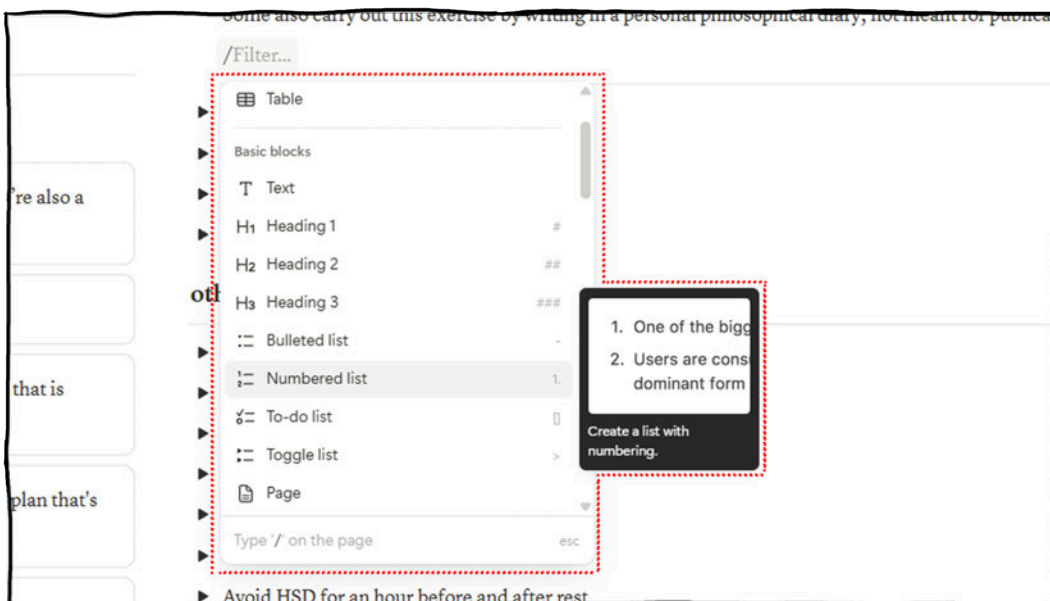
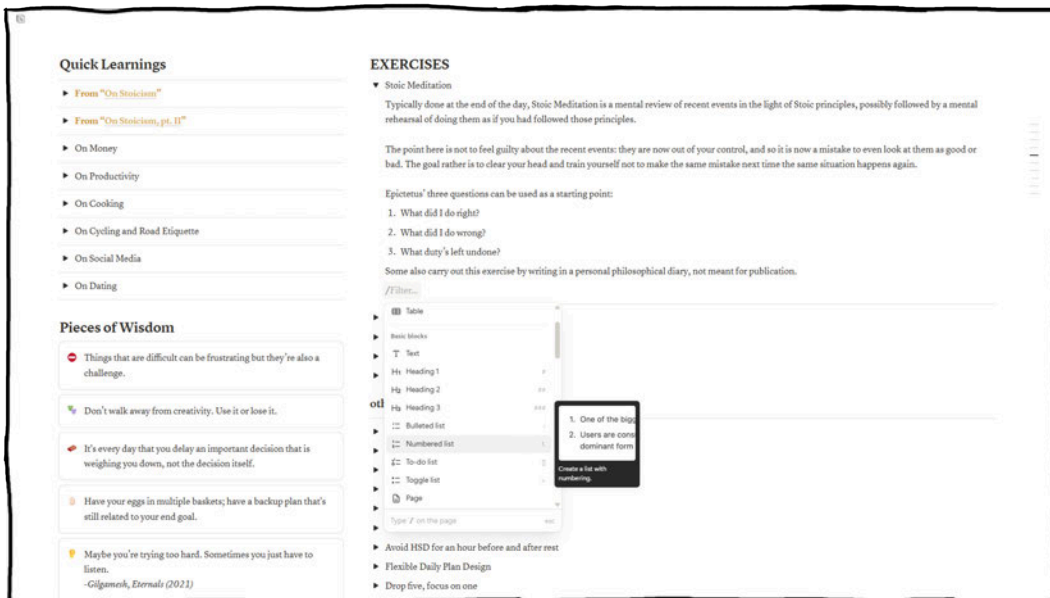
Notes can be organized in Google Keep using labels, which can be added by writing hashtags in the note. Limited customization is also available through select background colors and illustrations.

All in all, the application is fast, reliable, and accessible; however, it breaks down once the number of notes reaches well into the hundreds. Meaning-making becomes limited since only a handful of the hundreds of notes can be displayed on the screen at the same time. In my case, my notes have reached into the thousands, resulting in forming connections becoming extremely restricted, forgetting what I have written before, repeating what I have already written, and a significant degradation in app performance.

Hence, I migrated my efforts to another application. This time, I chose **Notion**, a popular all-in-one productivity and knowledge management application (*Notion*, n.d.). Instead of notes, it uses pages that are built with a block-based system wherein each piece of content is a “block” that can be adjusted and reformatted (*Notion*, n.d.). A page can be as something as simple as a journal entry or as complex as a database system.

Figure 5

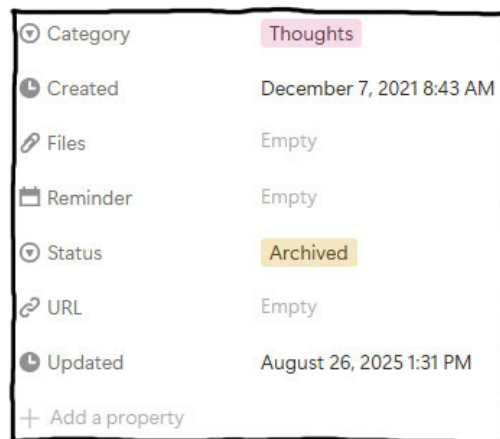
A Page I made in Notion and a zoom in on its block-based context menu



The interactive digital environment that I built in Notion utilized the power of linked pages. Linking one entry to another is a native feature not available in Google Keep — users have to manually keep track of a chosen note’s web link and paste it in the desired section of another note. In Notion, however, pages can easily be embedded, linked to, or mentioned within a page (*Notion*, n.d.).

I made a central home page on which all my pages are connected. Some pages are more traditional, like in the screenshots attached above. Others are more visual or management-oriented, adopting an interface similar to a gallery or a spreadsheet (*Notion*, n.d.). Each page can also be given multiple properties, such as a status property, date created, last updated, etc. (*Notion*, n.d.). Notion’s properties provide more robust data categorization in contrast to Google Keep’s label system.

Figure 6
Notion's property system



Notion is, therefore, a significant upgrade compared to its Google Keep predecessor; however, some issues remain. The application’s performance still tanks when faced with a large document (~40,000 words). Additionally, it lacks a feature that provides a navigable display of the relationship between pages. Google Keep’s

multi-view user interface can be simulated in Notion by creating a gallery view for pages. However, this option still presents the same limitation as with its predecessor.

Finally, the most pressing issue with Notion is its architecture. Its “pages within pages” design adopts a hierarchical parent-child relationship, where each “child” page branches off from a “parent” page. When I applied this structure to my entries on psychotic depression, I learned that it becomes problematic because my dataset is conflicting by nature.

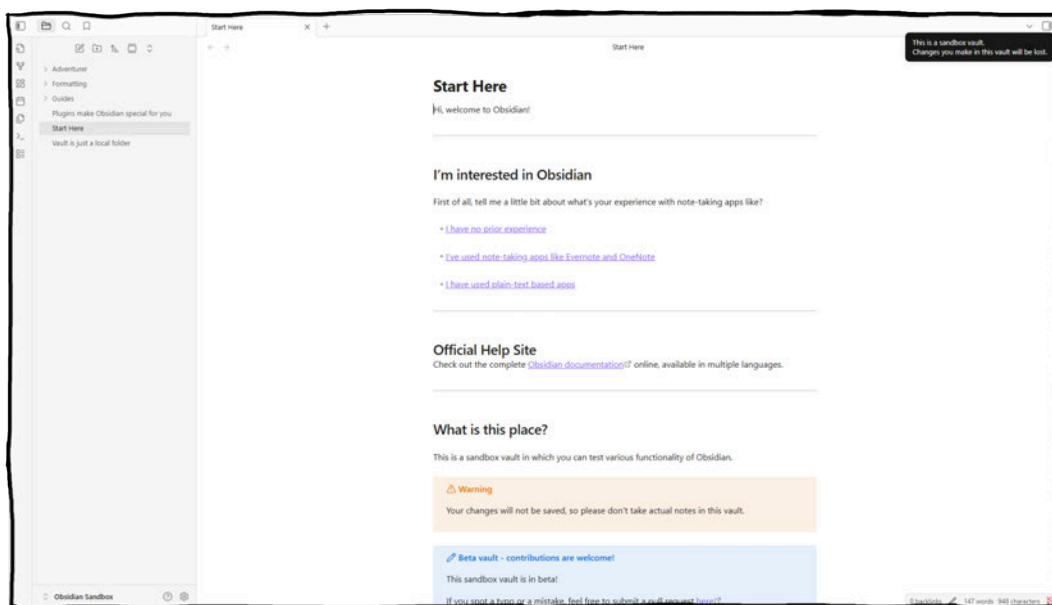
A parent page may be accurate one day, but it becomes contradictory the next, while a child page may remain intact despite its parent page having already been invalidated. Much of my time was consumed by rearranging the parent-child relationship between pages rather than writing the contents of the pages themselves. As such, I concluded that Notion’s hierarchical structure does not work well with the conflicting truths present in psychotic depression.

This has been the history of my attempts to build an interactive digital environment that facilitates assisted meaning-making. To date, the combined number of my notes and pages from Google Keep and Notion is estimated to exceed 10,000 entries, still excluding those written in my journals. As such, a viable platform would have to be capable of handling entries of this size and presenting their relationships without the use of a nested hierarchy. Features from previous predecessors are also welcome, such as the page properties from Notion. Finally, additional features that would be of significant value to the outlined purposes are also considered.

Having established these considerations, the next platform to be examined for the production of the interactive digital environment is **Obsidian**. It is a note-taking and knowledge management application where files are stored in a designated set of local folders called a *vault* (Obsidian, n.d.).

Instead of Notion's block-based pages, each note in Obsidian is a plain Markdown (.md) text file. This file type allows for robust text formatting that remains readable and accessible even outside of the application (Cone, 2020). Aside from its notes, the entirety of the program and Obsidian's default features are also stored and run locally in the user's device (Obsidian, n.d.).

Figure 7
Obsidian's Default User Interface, version 1.9.10



From Obsidian's local-first approach, numerous benefits could be gained. First, it allows for better performance. Since all of the vault's content is already housed in the user's machine, there is no need for cloud sync in comparison to Notion and Google Keep. This results in a snappier performance, even under large vaults — opening notes almost instantly and not requiring an internet connection.

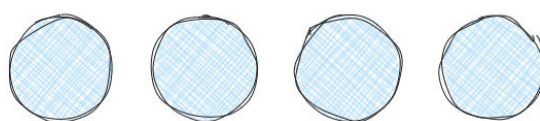
Second, since it is offline by default, Obsidian also provides a new feature not present on its predecessors — complete data ownership and privacy. This is of significant value to the interactive digital environment since meaning-making in it involves personal and highly sensitive data.

Each node represents a single Markdown text file and is present in the graph irrespective of its location or order within the vault. This means that Obsidian does not rely on a nested hierarchy to display user data and the relationships within it. This structure, therefore, makes it theoretically possible to represent all entries about psychotic depression made by an individual, without needing to consider their accuracy in the present moment.

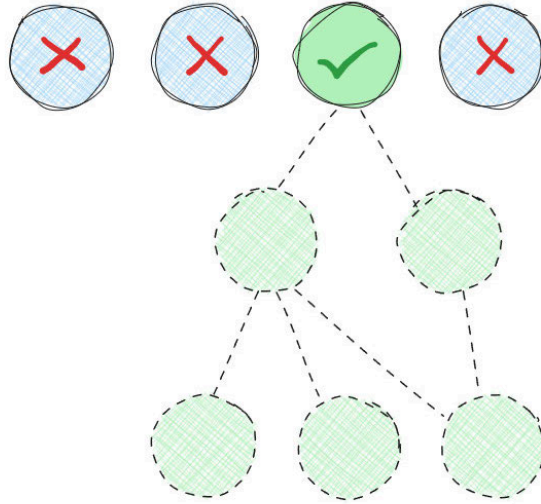
By presenting entries written in text files about psychotic depression within a non-hierarchical and free-flowing space, the environment offers an alternative to the approach of establishing a single objective truth from which everything branches. I argue that the “search for the truth” approach is not fit for individual meaning-making because psychotic symptoms, as discussed earlier, are characterized by excessive situational meanings — that, at its core, is the production of intense and distorted situational meaning across multiple stimuli. Each entry, therefore, carries its own value of meaning to be examined, interpreted, and contextualized rather than invalidated and dismissed. In doing so, the environment not only draws on each entry to build a holistic perspective but also enables the creation of new meanings — offering a response to the disrupted global meaning present in psychotic depression. It can be further argued that by including multiple sources from which meaning can be extracted, there is an increased likelihood for unexpected ideas to emerge from two seemingly separate concepts.

Figure 9

The common approach when handling conflicting entries about psychotic depression is...



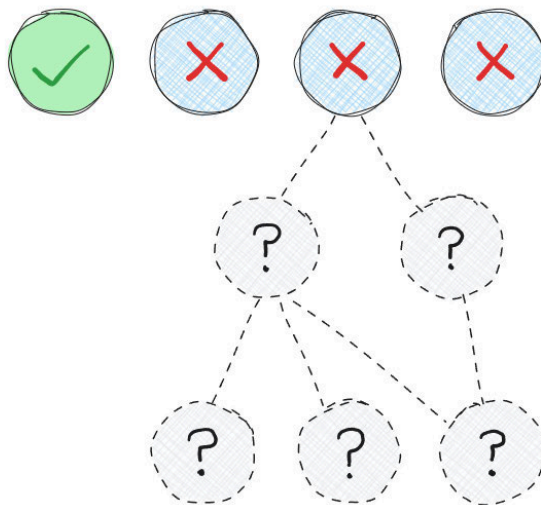
...to determine an objective truth, often by cross-referencing with what others have observed in their own reality*



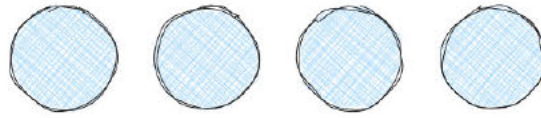
External validation, however, is not always available. They also do not provide all the answers, so one must look within.

* (Pachankis & Goldfried, 2007)

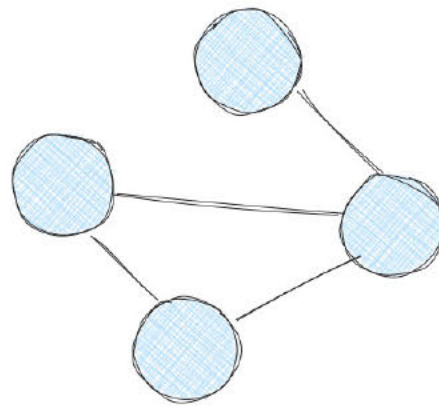
Yet if we to continue this approach as an individual, what is accurate today may be contradictory tomorrow.



My project departs from this method.
Instead we ask "what is the appraised
meaning in each entry?"

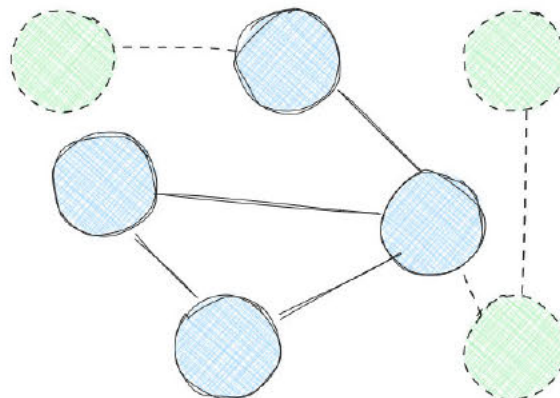


We connect those that are similar
without hierarchy — all in free-flow.



Each entry is given respect and
context, adopting a holistic perspective.

Onto which we can facilitate the creation
of new meanings, including those that are
unexpected.



This provides a better understanding,
direction, and hope for the future.

Thus, with its local-first approach and graph view, Obsidian meets the requirements for hosting the next iteration of the interactive digital environment. It also retains features that I value from its predecessors, such as Notion's page properties and Google Keep's free access. It is to be noted that Obsidian has optional paid add-ons for mobile sync and web publishing, but neither feature is necessary for this project. This makes it a significantly more cost-effective option compared to Notion's subscription-based model, which locks important features like unlimited file uploads.

Finally, the most powerful feature of Obsidian is its customizability and extensibility. Customization of its appearance is made possible through themes and reusable snippets of Cascading Style Sheets (CSS) code. Users can also install third-party plugins within Obsidian or create one themselves to expand on the native features of the application (Obsidian, n.d.). This elevates Obsidian from a note-taking application to a program for developing a personal knowledge base.

Davies et al. (2005) and Grundspenkis (2007) define a **Personal Knowledge Base** (PKB) as a private and custom-tailored system that enables an individual to process information into knowledge, while also providing effective means for its storage, management, and retrieval in daily life — also collectively referred to as **Personal Knowledge Management** or PKM.

Knowledge and meaning are different in terms of the source from which they are extracted. Knowledge is derived from comprehending unprocessed information (Davies et al., 2005), while meaning is produced from comprehending stimuli and our reaction to them (Kegan et al., 1982). A PKB is more oriented towards the former than the latter. However, both knowledge and meaning are internalized constructs dependent on the subjective interpretation of an individual (Davies et al., 2005;

Kegan et al., 1982). Meaning-making itself is an emergent feature in personal knowledge management (Anderson, 1990; Wright, 2005). Thus, it can be suggested that a PKB can be suited to the purpose of the described interactive digital environment. Especially with “custom-tailored” being one of its core characteristics, it can be suggested that there may have already been a PKB designed for supporting meaning-making. However, there is a lack of existing literature that explicitly defines and explores this process. In particular, one that is built to address underexamined conditions, with uncommon firsthand accounts, like psychotic depression (Jääskeläinen et al., 2018).

Taking everything discussed into account, there is a need to explore how meaning-making can be supported during states of excessive situational meanings and disrupted global meaning through techniques adapted from personal knowledge management and insights from a firsthand account of psychotic depression. This project addresses that need by producing the next iteration of the multimedia prototype for the interactive digital environment proposed in M4PD’s solution component, following earlier iterations built in Google Keep and Notion. The new iteration, built in Obsidian, takes the form of a personal knowledge base for supporting meaning-making.

Objectives

The project aims to produce a multimedia prototype in the form of a personal knowledge base in Obsidian that has a streamlined method to capture and explore excessive situational meanings and facilitate assisted meaning-making. In the context of this primary objective, the project also presents its secondary objectives.

- to utilize techniques adapted from personal knowledge management and insights from my firsthand account of psychotic depression to produce the personal knowledge base
- to continue the development of an interactive digital environment for the comprehensive exploration of my documented account of psychotic depression
- to support my argument that the difficulties in functioning associated with the condition are not inherent to it, but rather arise from the absence of an adequate medium for meaning-making
- to assess the feasibility of Obsidian as an interactive digital environment that supports meaning-making
- to provide an innovative framework for future research in the intersection of abnormal psychology and multimedia studies
- to continue the development of a multimedia product that can help anyone to understand themselves better and consequently, develop better thoughts

Significance

The successful production of the personal knowledge base provides a significant contribution to the field of multimedia studies and psychology. First, it resulted in the creation of a multimedia platform, albeit in its infancy, that facilitates assisted meaning-making for individuals with psychotic depression, where it is severely compromised. Additionally, since meaning-making itself is a core human function, the platform can also be adopted for the use of the general public.

Second, the project contributes to the body of research in multimedia studies when it comes to the intersection between abnormal psychology and multimedia

production. It provides an innovative framework for people who want to explore their struggles with their mental health condition or develop a multimedia product informed by their unique experience of it.

Third, when it comes to the evolving medium of personal knowledge management, the project provides relevant information for those interested in the methodology involved in creating a personal knowledge base for meaning-making.

Fourth, in the context of the global mental health movement, the project contributes to local multimedia initiatives that aim to provide innovative frameworks for understanding mental health conditions.

Fifth, specific to research on psychotic depression, the project provides valuable information on an otherwise underexamined topic (Jääskeläinen et al., 2018). It also provides data on what can be done with firsthand accounts on the condition, which is also uncommon. By showing that it is feasible to map the experience of psychotic depression, the project challenges its stigma — showing that, contrary to the common view of it as a *tragic madness*, the experience can in fact be rendered coherent through the use of a novel medium.

Scope and Limitations

This special project represents a single part of a larger, ongoing effort to develop an interactive digital environment that facilitates assisted meaning-making in psychotic depression, a condition in which this capacity is severely compromised. The efforts underlying this task began years prior to the formal start of this project. Accordingly, the results presented in this project should be understood as a continuing work-in-progress that extends beyond my undergraduate studies. Within the scope of this project, however, the focus is limited to a minimum viable product

designed to provide a streamlined method for capturing and exploring situational meanings and facilitating assisted meaning-making for the formation of new meanings and production of a personal knowledge graph (PKG) from a private dataset that contains entries on my lived experience with psychotic depression and other personal information.

In consideration of my privacy, the contents of the private dataset used in this project are not disclosed, nor is any access to the product provided. Select excerpts are presented only insofar as to demonstrate the functionality of the system, not to reveal the extremely personal content of my writings about psychotic depression. I argue that demonstrating functionality alone is sufficient, as it shows how the system can be applied to meaning-making in psychotic depression without requiring disclosure of sensitive material. In addition, for the purposes of providing credence, a redacted medical abstract confirming a prior diagnosis of Major Depressive Disorder with Psychotic Features is included in Appendix A.

Lastly, it should be emphasized that the personal knowledge base developed in this project is not intended to substitute for medication, therapy, and psychiatric intervention. It serves to coexist with these methods, designed as a tool for support and self-management for individuals with early and mild experiences of psychotic or depressive episodes. It can also be used by those in active recovery from psychotic depression, or by anyone who can maintain coherent functioning. It is to be noted that the clinical efficacy of the PKB remains hypothetical, untested, and falls outside the scope of this project.

II. Literature Review

The following chapter explores the literature surrounding the variables of the project and determines the gaps in research. It begins with discussing the present clinical research about psychotic depression and a review of the availability of firsthand accounts. It is then followed by a discussion of multimedia-based tools for psychotic depression, and an overview of knowledge management — including personal knowledge management — in the context of mental health.

This chapter also expands on the theoretical framework introduced in this project, the Multimedia Meaning-making Model for Psychotic Depression (M4PD), showcasing how it was derived from multiple existing concepts on meaning and meaning-making. Furthermore, a more specific review of personal knowledge management techniques is presented in Chapter 4, where they are reviewed and adapted for implementation in the personal knowledge base.

Present Research on Psychotic Depression

An extensive body of literature has been produced from clinical studies of depressive disorders over the past few decades. It has been discovered that psychotic depression is associated with hyperactivity in the hypothalamic-pituitary-adrenal (HPA) axis of the human body. In other words, it is a physical abnormality in the central nervous system and the endocrine system (APA, 2022). There is no specific onset for psychotic depression; however, most cases generally start at the age of 20 and above (Gournellis et al., 2011). Risk factors include high neuroticism, childhood trauma, sexual abuse, social isolation, and social-structural adversities such as poverty, racism, and marginalization (APA, 2022).

The hallucinations or delusions in psychotic depression can either be mood-congruent or mood-incongruent. Mood-congruent features exhibit themes that are consistent with depression, such as “personal inadequacy, guilt, disease, death, nihilism, or deserved punishment” (p.213). Mood-incongruent features, on the other hand, exhibit themes not related to depression. The psychotic features can vary per depressive episode and may switch from mood-congruent to mood-incongruent and vice versa (APA, 2022).

Due to its severity as a depressive disorder, psychotic depression has been reported to have a higher rate of relapse and suicide rates in comparison to its non-psychotic counterparts and can transition to schizophrenia (APA, 2022; see also Flint et al., 2023; Surati et al., 2024). A person who struggles with depression has a chance of committing suicide 17 times the average of those in the general population (APA, 2022). If the person has psychotic depression, however, the risk of suicide increases to twice that of the non-psychotic counterpart (Paljarvi et al., 2023).

Antipsychotics in combination with antidepressants are commonly used to treat psychotic depression, with electroconvulsive therapy (ECT) being utilized for severe psychosis (Lichtenberg & Belmaker, 2010). Novel antipsychotics, capable of treating both psychotic and depressive symptoms, are also being recently developed (Buiho et al., 2024). Lastly, applying cognitive behavioral therapy (CBT) in clinical practice — to treat depressive disorders before their psychotic symptoms appear — is also encouraged (van Os & Murray, 2013). CBT is a psychological treatment wherein the patient works collaboratively with the psychologist to recognize distortions in meaning-making and consequently, change their behavior (APA, 2017).

Efforts to study depressive disorders are also prominent in the Philippines. Vitocruz et al. (2019) investigated the frequency of depression and those at risk of it

among first to third-year students in a private medical institution. Valmores et al. (2014) determined that a mild level of depression is prevalent amongst a group of 600 university students using fractal statistical analysis. Briz et al. (2023) studied stigmatization in the depression of adult patients in accordance with the condition's degree of intensity. These studies, although focused on depression, categorized the condition based on severity and not its subtypes, *i.e.*, not psychotic depression.

In conducting a preliminary survey of existing literature, I utilized a targeted search in academic databases using keywords such as “psychotic depression,” “major depressive disorder with psychotic features,” and “Philippines.” However, as shown above, the search yielded very few studies focused specifically on psychotic depression within the Philippine context. A study I found that explicitly mentions psychotic depression in the Philippines is a cross-sectional review by Koyanagi et al. (2017) of community-based data from the World Health Survey. Across 47 low to middle-income countries with about 10,083 participants from the Philippines, there is less than 1% prevalence of psychotic depression in the country (Koyanagi et al., 2017). It can therefore be suggested that while there is significant literature present for depression in the Philippines, its psychotic subtype remains underexamined, partly due to the condition's rarity.

Furthermore, a systematic review of 99 out of a pool of 1,764 potentially relevant articles has found that psychotic depression is significantly less explored as a main research topic in comparison to non-psychotic depression, schizophrenia, and bipolar disorder (Jääskeläinen et al., 2018). Rothschild (2003) also argues that controlled studies on the condition are difficult to conduct due to its nature of morbidity and mortality. Moreover, information about psychotic depression remains limited due to a lifetime prevalence of only between 0.35% to 1% (Jääskeläinen et

al., 2018; see also Nguyen et al., 2025). As such, it can be further suggested that there is a need for more studies — not just within the Philippine context — that use psychotic depression as its research subject or inclusion criteria for its participants.

Availability of Firsthand Accounts on Psychotic Depression

Moving on from clinical studies to personal narratives, firsthand accounts that are centered on psychotic depression are mostly found on semi-anonymous, topic-based forum websites like Reddit. Users can share their experiences under a username of their choice, allowing themselves to hide their identity as they tell their stories. The content of the posts can range from short emotional rants to detailed retellings beginning with the prodromal phase to actively exhibiting psychotic symptoms. Hopelessness and negativity surrounding psychotic depression are common themes in these forums, with posts about recovery being relatively few (nisamlud123, 2023). A user has argued, however, that this may be because those who struggle with psychosis are more likely to post, whereas those in recovery seldom post about their progress (nisamlud123, 2023).

In traditional media, several stories surrounding depressive disorders and the schizophrenia spectrum are told in a diverse range of formats. Few are specifically about psychotic depression due to the wide coverage and complex nature of these mental health conditions. However, in the book, *The Yellow Wallpaper*, Charlotte Perkins Gilman laid out her experiences through a semi-autobiographical short story — later characterized by modern reading as postpartum depression and psychosis (Riley, 2021). Her work played a pivotal role in defining early discourse on women's mental health (Riley, 2021).

When it comes to multimedia arts, the same pattern is also present, with less attention provided to the subsets of depressive disorders. Most works focus only on one aspect, either psychosis or depression. An example of a psychosis-oriented work is *Labyrinth Psychotica*, an art project founded by Canary Nikolova (2016) that involves the use of virtual and mixed-reality technology to simulate the experience of psychosis. An example of a depression-oriented work is *Depression Quest* by Zoë Quinn, a critically acclaimed interactive fiction webpage known for its accurate portrayal of depression (Depression Quest, n.d.).

Accounts on psychotic depression are also available in scholarly articles, conferences, and lectures — although these are few in comparison to the discussed online forum posts (Green & García-Mieres, 2022). These accounts are often delivered in the form of a narrative exposition with expert discussion or a physician's perspective (Fox, 2018; Frawley & Gelderen, 2018; Lawrence & Lawrie, 2013).

Overall, however, people with psychotic depression avoid sharing their stories publicly due to fear of stigmatization (Stafford, 2018). It does not help that in the entertainment industry, most representations provide a negative stereotypical depiction of the condition — perpetuating the myth of *lost-cause insanity* (Aracena, 2012; Kasdorf, 2023; Livingston, 2004). Characters with psychotic or depressive symptoms are often portrayed as one-dimensional characters that exhibit demented, savage, or violent behavior (Aracena, 2012; Kasdorf, 2023).

Looking into the number of firsthand accounts surrounding psychotic depression, it is in agreement with the present research that the experience of the condition is extremely varied and unique (van Os, 2014). A firsthand account, therefore, provides immense value because of its inherent distinctiveness and for being grounded in lived experience instead of theoretical concepts (Sartor, 2023).

Given their uniqueness and value, it remains a pressing issue that more firsthand accounts of psychotic depression be made available. Equally important is further research on how such accounts are utilized both in international and local contexts.

Use of Multimedia-based Tools in Psychotic Depression

Multimedia technology enables the development of tools designed to provide support and care for individuals with mental health conditions, commonly in the form of eHealth mobile or web-based applications. Many of these tools offer digital access to primary care — an array of essential health care services typically used during a mild episode of a mental health condition (Fuster-Casanovas et al., 2025; Jenkins et al., 2025) — as well as telemedicine, which is the process for remote consultations with healthcare professionals like psychiatrists (Fieschi, 2018).

Specifically for psychosis, *PsyMate* is an experience sampling platform that allows individuals to keep track of their activities and mood during a psychotic episode. At random intervals during the day, *PsyMate*'s mobile application sends a notification to the user, prompting them to answer a two-minute questionnaire about their mood, current activity, and observations in the present moment (PsychosisNet, 2017). The questionnaire can also include specialized tests, such as symbol substitution and memory tests (*PsyMate*, n.d.). Data from these questionnaires is then presented in a private dashboard with graphs and charts — providing a visual representation of information, such as the user's mood over time (*PsyMate*, n.d.). The application is designed for personal use, health care practice, and research, with the latter two requiring user consent for data access (*PsyMate*, n.d.).

Since the collected data — such as the mood of the user — is objective, graphs that utilize nested hierarchy and linearity can be utilized for display. However,

for transient and ever-changing information like meaning, there is a need for a non-hierarchical manner of presentation and a platform to contain it.

Specifically for depression, communication channels are used to facilitate collaborative self-management between an individual and their specified support network (Burgess, 2019). This helps address the lack of social support in individual-focused approaches to self-management of depression (Burgess, 2019). However, it is reported that these collaborations can also cause conflict (Burgess, 2019).

Across psychosis and depression, some tools are accompanied by physical devices. For example, an electronic medication dispenser that tracks the number of times a pill is released (Frangou et al., 2005). This provides data for clinicians regarding medication adherence (van der Krieke et al., 2014). Others adopt a more general approach, directed at minimizing dangerous habits such as smoking and consequently, improving well-being amidst the experience of a mental health condition (Brunette et al., 2011).

There are even tools integrated into treatment plans. For instance, after a six-week psychological intervention where patients articulate their life goals, Short Message Service (SMS) features are used to reinforce the determined goals through regular reminders (Pijnenborg et al., 2010). Video games can also act as tools for psychoeducation. For example, *Celeste* by Maddy Makes Games provides an interactive experience on grounding techniques to support self-management of mental health conditions (Mittmann et al., 2024).

With all of these features, however, there remain areas in depression, and particularly in psychotic depression, that require tools to address them. Researchers highlight the need for holistic models that integrate multiple forms of experiential knowledge, not just static information like mood, observations, or medication intake

(Chambers et al., 2015; Smit et al., 2020). By adopting a holistic approach, more specific directions for self-management strategies can be determined. It is important to note that such tools should be developed specifically for psychotic depression, a condition that has received relatively little attention in this context.

In addition, tools that support the creation of holistic models should provide greater user control, allowing data collection and management to be more flexible and open-ended rather than constrained by rigid templates and predefined structures. This would allow a single data source to be fed into multiple representations or analyses as needed, which can be suggested as particularly beneficial for managing complex conditions such as psychotic depression.

Knowledge Management in the context of Mental Health

As broad and multifaceted a field as Knowledge Management (KM) is, it comes as no surprise that it has been explored in a variety of ways within the context of mental health. In relation to multimedia studies, branching subfields have emerged in the past few years, such as Clinical KM, Medical KM, Healthcare KM, and Mental Health KM (Berka et al., 2009; Lorence & Churchill, 2005; Morr & Subereaze, 2010; Rohajawati et al., 2016). Some of these are discussed in the literature below.

First, using KM to improve mental health services. Zhang et al. (2022) applied KM techniques to design a service model, *i.e.*, a framework, that integrates information on available resources, processes, and tools related to the delivery of mental health support for first-year college students. The results of their study provided relevant information to the sustainable development of adaptable mental health services. In addition, Rohajawati et al. (2016) endorsed KM implementation in mental health organizations “to improve patient safety and care, reduce maintenance

costs, [and] support decision making” (p. 6), as well as to provide better access to the latest innovations in clinical practice.

Second, examining the impact of KM implementation on mental health. In their study of KM implementation among university personnel, Mazaherinezhad et al. (2021) found that knowledge-sharing behavior fosters psychological empowerment, which in turn enhances overall mental well-being.

Third, using KM to study mental health conditions. The **Network Approach to Psychopathology** is an alternative approach that utilizes knowledge graphs to model mental health conditions as networks of mutually reinforcing symptoms, rather than single root causes (Robinaugh et al., 2020). For example, instead of attributing depression solely to a central trait like high neuroticism, the network approach conceptualizes it as the interplay of reinforcing symptoms like guilt, insomnia, and fatigue (Bekhuis et al., 2019). It produces a knowledge graph wherein each symptom is represented by a node and is positioned in relation to other symptoms — including those clinically associated with other conditions (Robinaugh et al., 2020). Each individual has a different network of symptoms. Thus, the network approach supports the idea of individualized experience of psychopathology (Robinaugh et al., 2020).

In line with its core characteristic of individualized networks, it can be suggested that the network approach warrants further exploration regarding its applicability to other areas of mental health. This includes investigating whether personal knowledge graphs can be designed to map the individual process of meaning-making for mental well-being. Conducting research into the mapping of individual meaning-making will further expand the understanding of mental health conditions, moving beyond a focus on symptoms to examine the underlying mental processes involved in their lived experiences.

Fourth, within the tools for personal knowledge management, users of Obsidian report a variety of ways of using the application for mental health purposes. One approach involves the use of a dynamic journal that lets the user tag their written lines with special attributes. For example, if they write `Therapy: :` before a line, their PKB automatically collects it, which is then compiled with other therapy-tagged lines into a single data table. This allows them to automate the collection of the things they want to share in a therapy session (Live-Ad-2677, 2022).

Another user has an entirely separate vault for managing their mental health, keeping it distinct from their vault designated for work (BigLoveForNoodles, 2022). While a different user uses Obsidian to link and track patterns in their daily life, enabling them to examine the reciprocal relationship between their thoughts and the circumstances surrounding them (MettaSuttaVegan, 2022).

With all of these usage showcases, however, there remains a gap in the literature, as very few users have provided formalized accounts of how their PKBs were developed, and some of these few reports are behind paywalls (*Ideaverse Pro*, n.d.). Most available information focuses on outcomes or specific features rather than a full systematic documentation of the construction and organization processes they employed in Obsidian. It is also to be noted that no formalized accounts are found for PKBs that support meaning-making in the context of mental health conditions like psychotic depression.

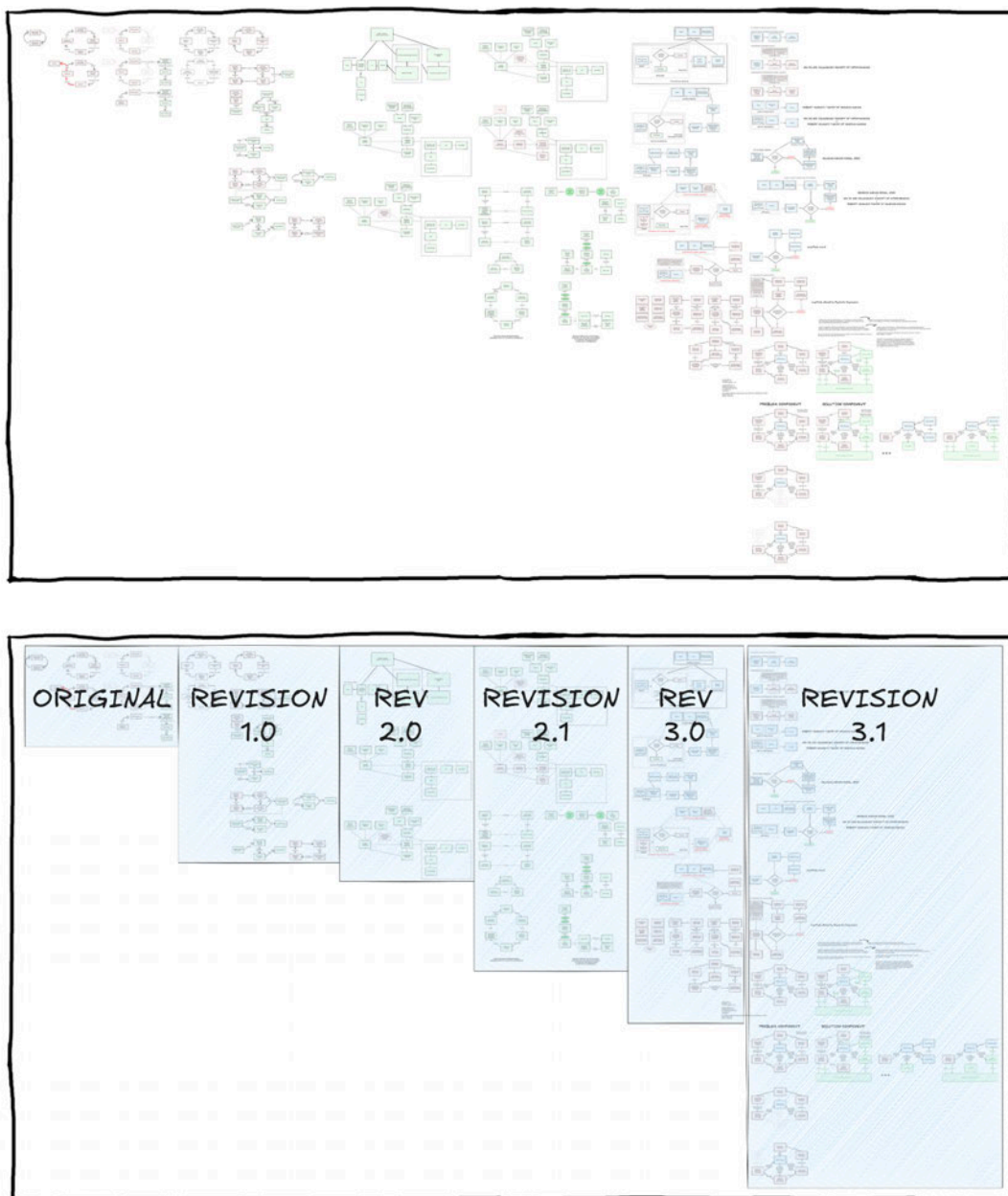
Theoretical Framework

To address the absence of a framework that fully captures the process of meaning-making in psychotic depression, in particular, within a multimedia context, this project proposes the Multimedia Meaning-making Model for Psychotic

Depression, or M4PD. It integrates and extends key concepts from hyper-meaning (van Os, 2014), Kegan's theory of meaning-making (Kegan et al., 1982; Kegan, 1994), and the meaning making model (Park, 2022). This section outlines the derivation process from these separate concepts into the integrative model of M4PD.

Figure 10

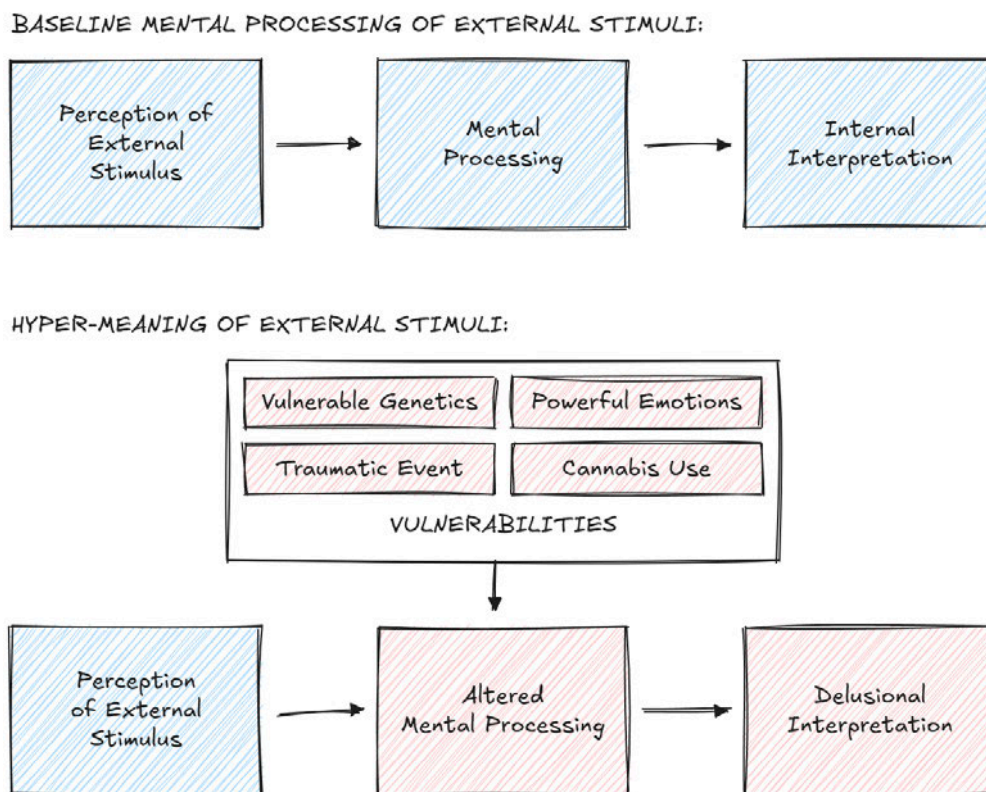
The Full Derivation Process for M4PD, including previous versions, up to the one used in this project, revision 3.1.



A notable contribution to the understanding of psychotic depression came in the form of discussing psychosis as a state of hyper-meaning (van Os, 2014).

Hyper-meaning refers to the excessive attribution of meaning towards the experience of a stimulus (*i.e.*, an internal or external event that triggers a response or change) due to factors such as powerful emotions, adverse childhood experiences, or recreational drug use (van Os, 2014). This results in significant cognitive distortions expressed by an individual as psychotic features (van Os, 2014). It is illustrated in the figure below.

Figure 11
Baseline Mental Processing vs Hyper-meaning (Delusions)

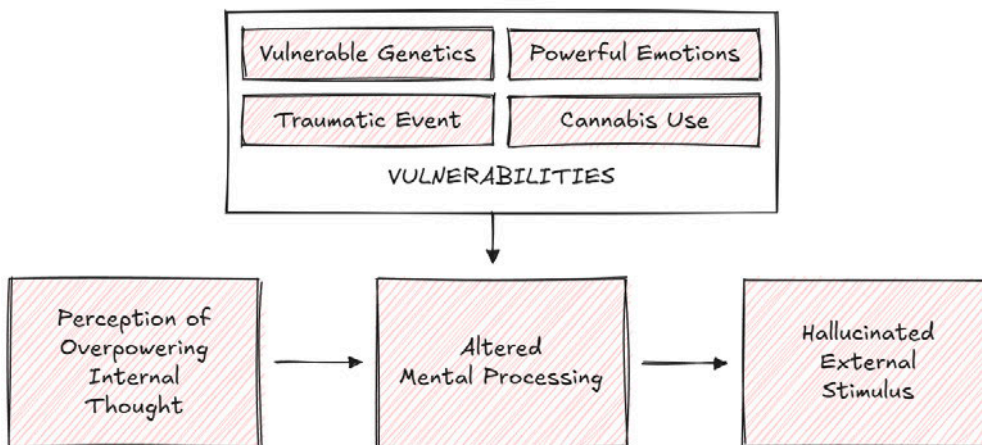


Under the baseline mental processing, our minds convert external sensory information into our own internal interpretation. In contrast to the latter, where, because of the presence of vulnerabilities to psychosis, the internal interpretation is

intensified into a hyper-meaning in the form of delusion. The same logic is also present for hallucinations, where both vulnerabilities and overpowering internal thoughts contribute to the state of hyper-meaning (see Figure 12).

Figure 12
Hyper-meaning (Hallucinations)

HYPER-MEANING OF OVERPOWERING INTERNAL THOUGHTS:

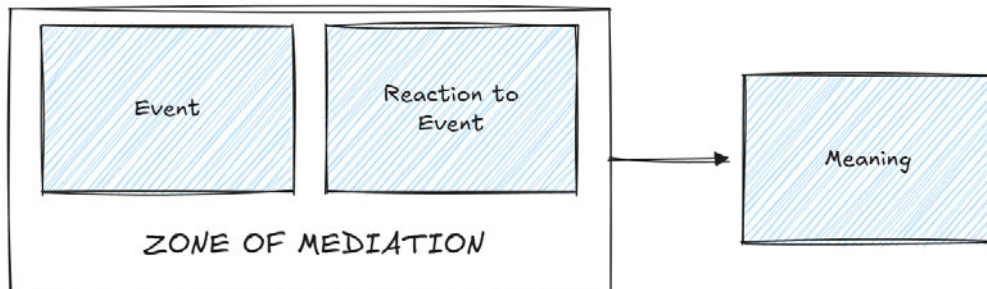


These figures do not imply that every case of hyper-meaning is severe, as some vulnerabilities, such as powerful emotions or Cannabis use, can cause mild psychotic experiences. Through these, it is further argued that occurrences of hyper-meaning are common. Van Os (2014) supports this by stating that a considerable number of the general population have found themselves in one or more psychotic experiences manifesting in extremely varied ways and intensity. Van Os (2014) further states that it is the environment that drives the brain into a state of hyper-meaning. Genetics is still a factor, nevertheless, but only to the point of determining an individual's level of vulnerability against it (van Os, 2014).

Taking hyper-meaning into account, we can expand and provide a conceptual definition for "meaning." Under constructive-developmental theory, a set of ideas that argue for the progression of meaning-making capabilities throughout one's lifespan

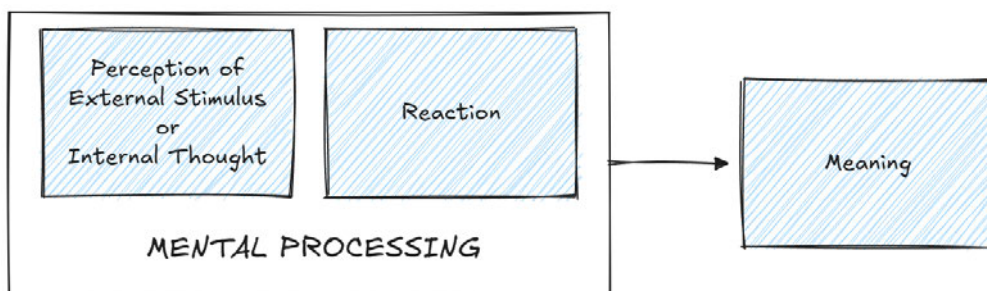
(Ignelzi, 2000), meaning is defined as the product of the internal mediation between an event and one's reaction to it (Kegan et al., 1982; Kegan, 1994; Piaget, 1967). The event — anything that we experience or go through in life — is made sense of in a *zone of mediation*, resulting in an articulated reflection that is unique to the individual (Ignelzi, 2000; see also Kegan et al., 1982). This definition enables its illustration in Figure 13.

Figure 13
Robert Kegan's Theory of Meaning-making



By combining this definition with the concept of hyper-meaning, we can swap “event” and the “zone of mediation” with a more accurate expression (see Figure 14).

Figure 14
Robert Kegan's Theory of Meaning-making + Hyper-meaning

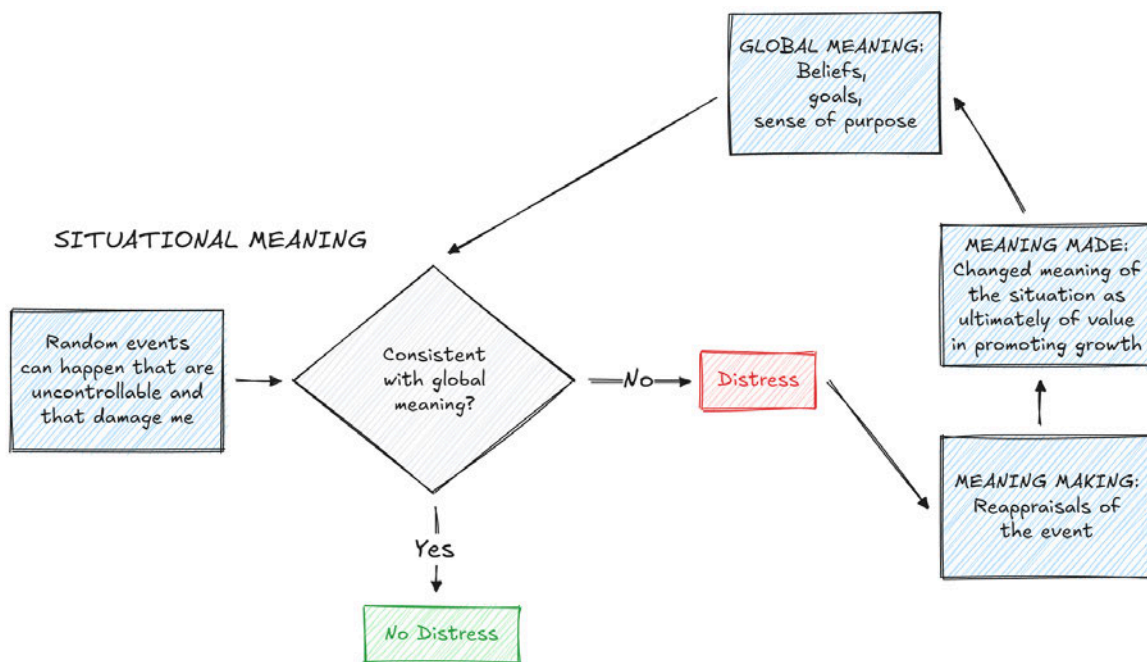


Meaning can therefore be redefined as the product of mental processing between the perception of a stimulus and one's reaction to it (Kegan et al., 1982; Kegan, 1994; Piaget, 1967; van Os, 2014).

With the definition of meaning available, it becomes possible to proceed with defining the process that makes it possible — meaning-making. The Meaning Making Model by Park (2022) outlines this process as a whole.

Figure 15

A redraw of the Meaning Making Model (Park, 2022). Original figure by Crystal L. Park. Licensed under CC BY 4.0.



Park (2022) differentiates meaning into two categories: situational meaning and global meaning. The definition of meaning that was developed in combining the concept of hyper-meaning and Kegan’s theory of meaning-making falls under situational meaning — which are appraisals of experience (Park, 2022), with experience being composed of the perception of a stimulus and one’s reaction to it.

Global meaning, on the other hand, represents a higher level of meaning; one that is close to the idea of having “meaningful life” rather than what an event “means” for the individual. Differentiating meaning into two types is beneficial to producing operational definitions since meaning is a vague word that can either mean appraising an event (situational) or the subjective sense of meaningfulness (global).

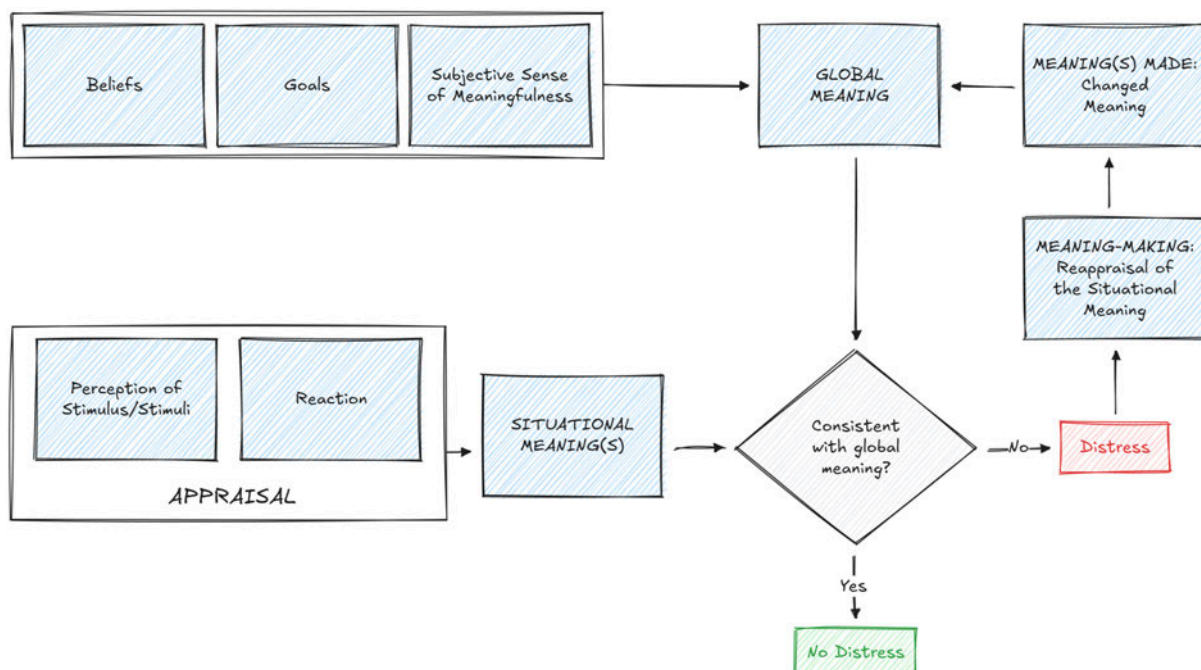
Along with the subjective sense of meaningfulness, global meaning also includes our foundational beliefs and goals in life (Park, 2022).

According to Park (2022), upon appraising an experience (situational meaning), our minds automatically initiate a psychological response of distress if the appraised meaning is discrepant with our beliefs, goals, and sense of meaningfulness (global meaning). To alleviate this distress, we engage in the conscious reappraisal of the situational meaning, *i.e.*, meaning-making. If our efforts of meaning-making are successful, we are able to reduce the discrepancy by integrating the situational meaning into the global meaning or changing the global meaning to adapt to the situational meaning. This state is what Park (2022) refers to as Meaning(s) Made.

We can further expand Park’s (2022) meaning making model above using everything we have just discussed (see Figure 16).

Figure 16

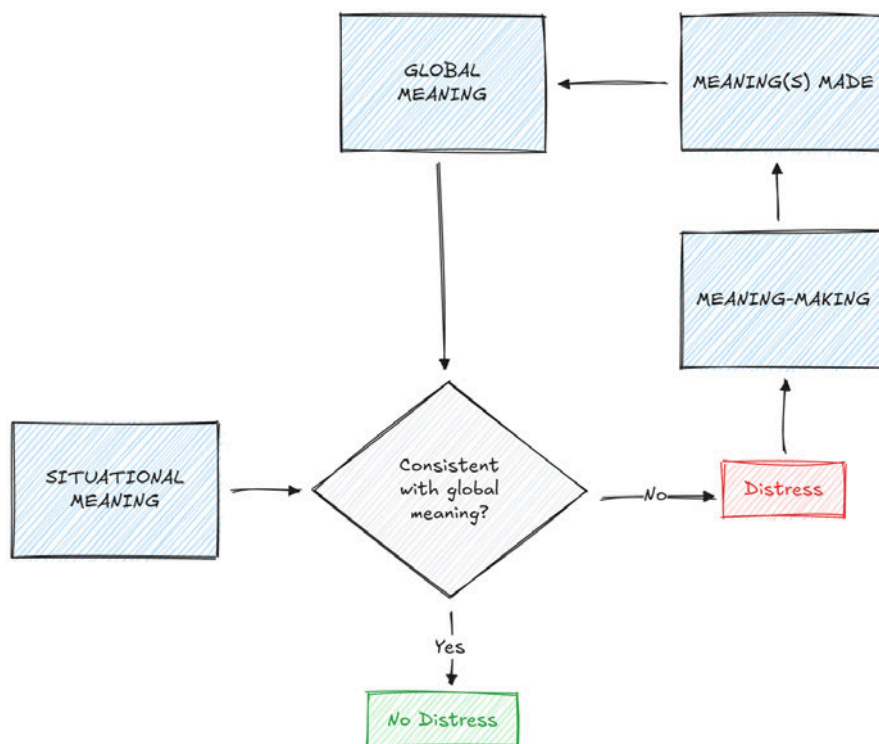
Integrative Model of Robert Kegan’s Theory of Meaning-making + Hyper-meaning + Park’s (2022) Meaning Making Model



“Mental Processing” is changed to “Appraisal,” “Perception of External Stimulus or Internal Thought” is simplified to “Perception of Stimulus,” and “Meaning” is clarified as “Situational Meaning.” It is to be noted that Park’s Meaning Making Model defines situational meaning differently across versions (Park, 2013; Park, 2022). For this project, I adopt the most recent formulation (Park, 2022), where situational meaning excludes meaning-making and meanings made. In earlier versions, however, what I refer to as situational meaning was instead called *appraised meaning*, and “situational meaning” referred to the full sequence from appraisal to meanings made (Park, 2013). To avoid confusion, simply substitute “situational” with “appraised” when viewed through the lens of earlier meaning making models, *i.e.*, psychosis as “excessive appraised meaning.”

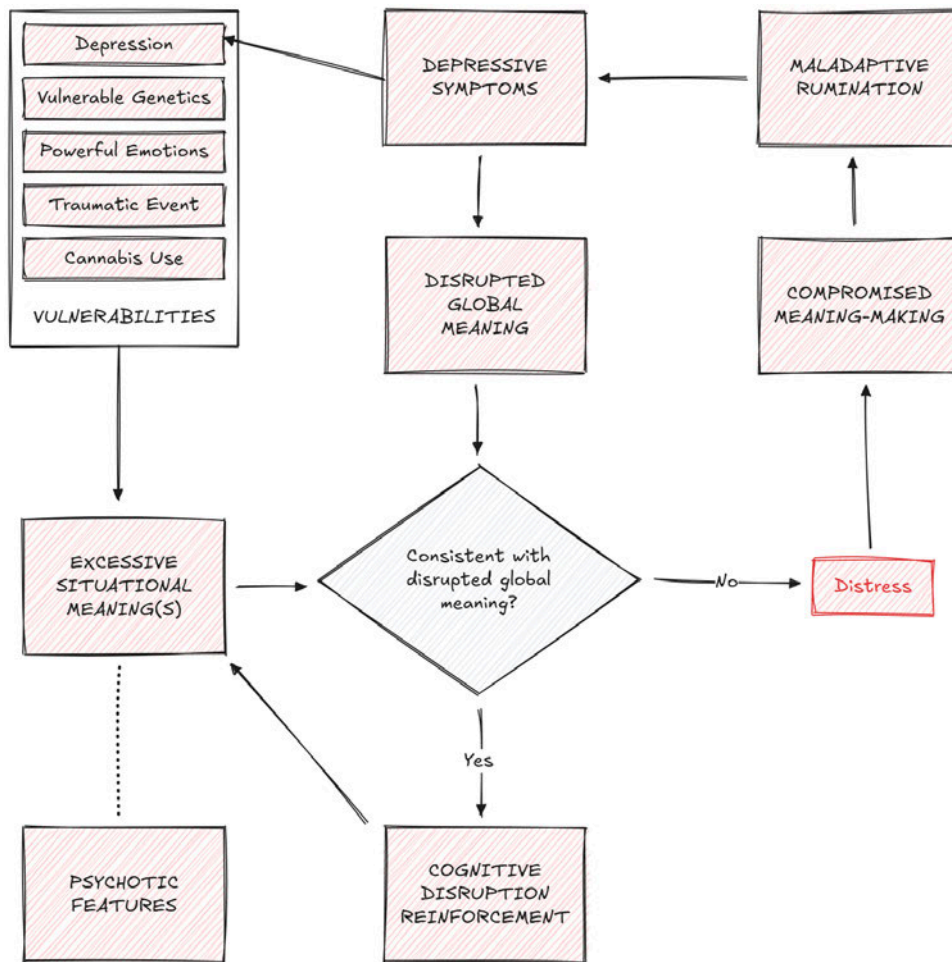
Upon establishing these relationships and what makes up situational and global meaning, we can further simplify the integrative model for further derivation.

Figure 17
Simplified Integrative Model



Using the information from van Os (2014), we can then insert vulnerabilities to psychotic features in order to map out how it affects the baseline meaning-making process, and consequently, show the reinforcing cycle of psychotic depression.

Figure 18
Altered Integrative Model (Psychotic Depression)

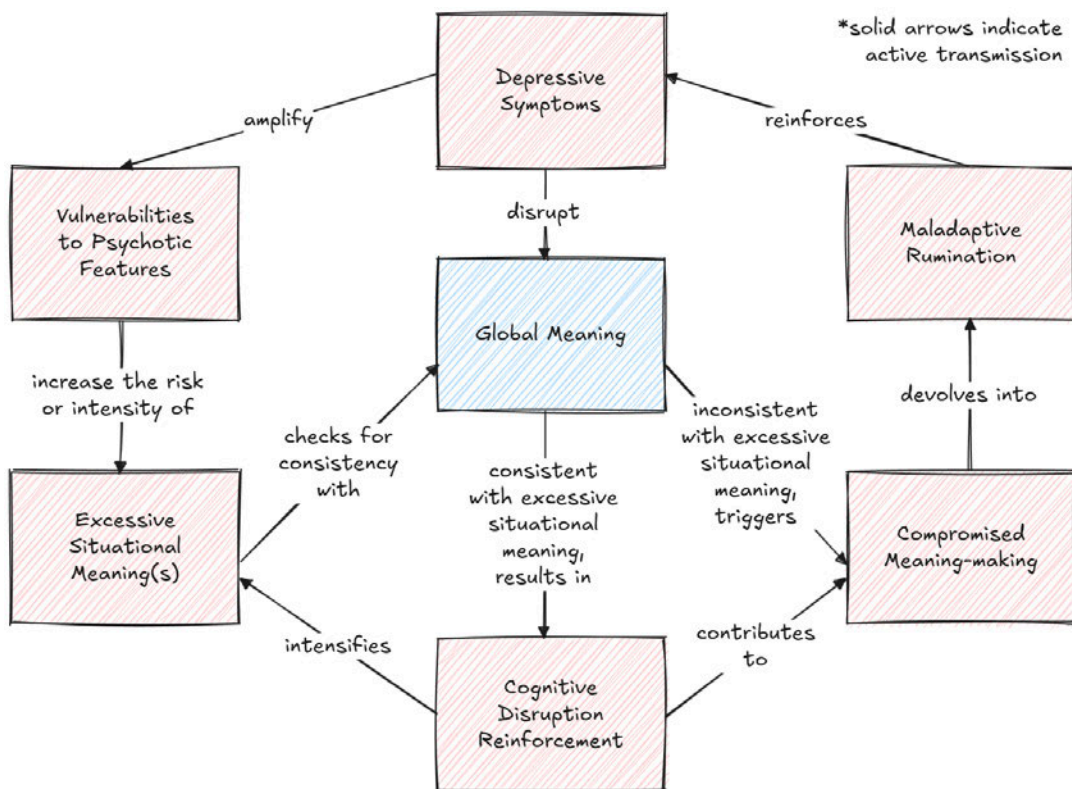


Excessive situational meanings are expressed as psychotic features, making the two linked to each other. The rest of the figure shows how psychotic depression affects the entire ecosystem of an individual's meaning-making. Excessive situational meaning when discrepant with global meaning causes distress, which triggers compromised meaning-making. This devolves into maladaptive rumination, reinforcing the depressive symptoms, which amplifies the vulnerabilities. If the

excessive situational meaning is consistent with the disrupted global meaning, then the cognitive disruption is reinforced.

To make the model easier to understand, we include the relationship of the blocks with each other in the lines that connect them. Additionally, from its illustrated looping feedback mechanism, solid arrows indicate the active transmission of reinforcement from previous loops. This creates the problem component of the Multimedia Meaning-making Model for Psychotic Depression.

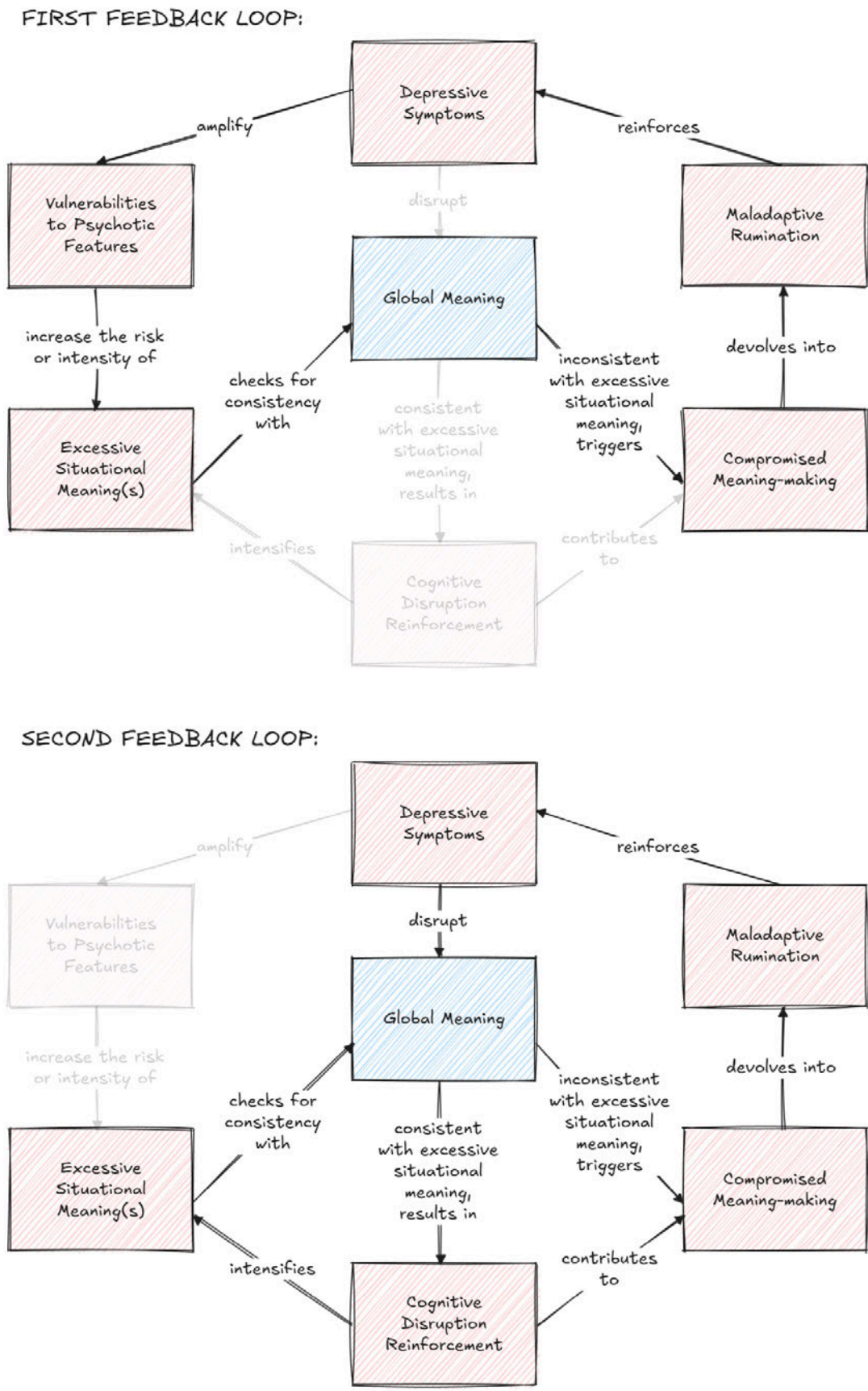
Figure 2
MAPD's Problem Component



We can also showcase each layer of the ordered feedback loops in the problem component by decreasing the opacity of some of the blocks.

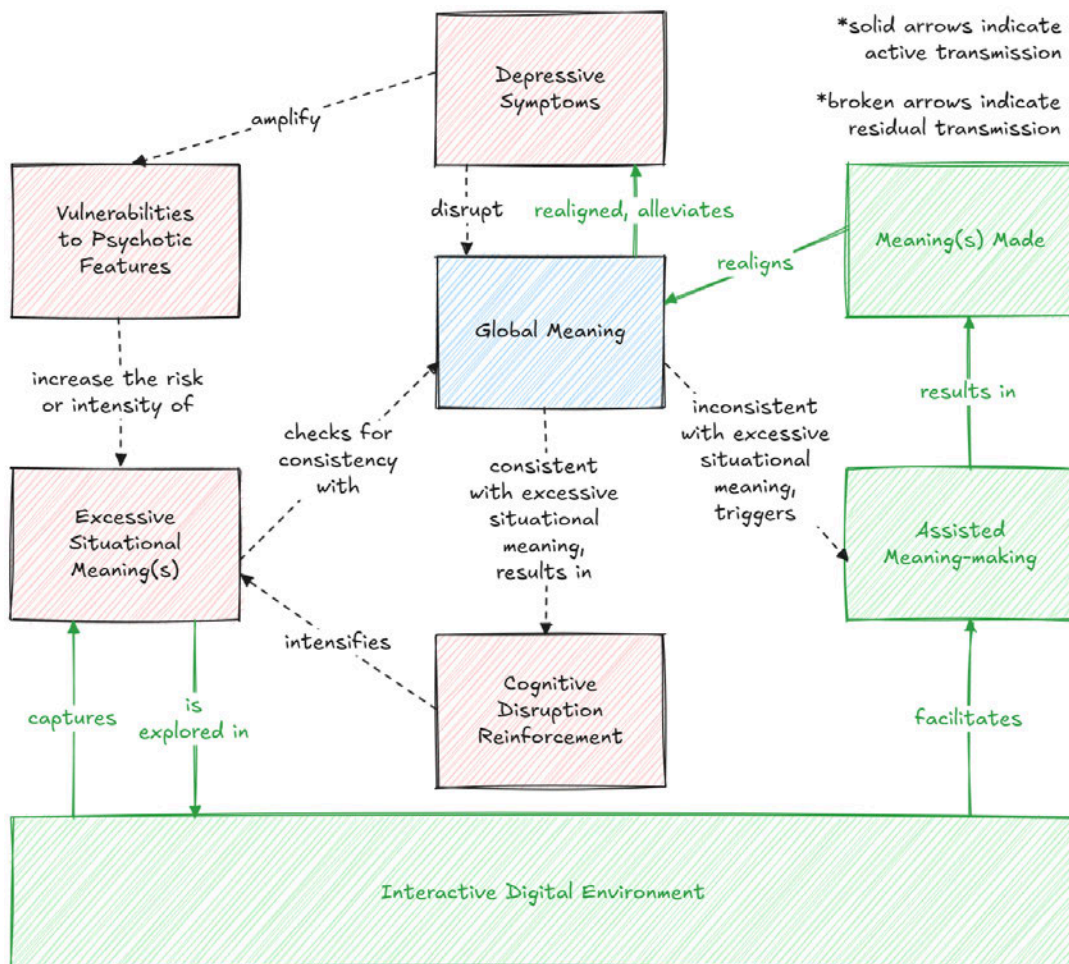
Figure 19

The Ordered Feedback Loops in the Problem Component



By mapping a complete picture of how psychotic depression alters the baseline meaning-making process, it can be determined which areas should be targeted by a multimedia product that supports meaning-making. This leads to the development of the solution component for the Multimedia Meaning-making Model for Psychotic Depression. Broken arrows indicate residual transmission with significantly less reinforcement from previous loops since the cycle no longer has compromised meaning-making.

Figure 3
M4PD's Solution Component

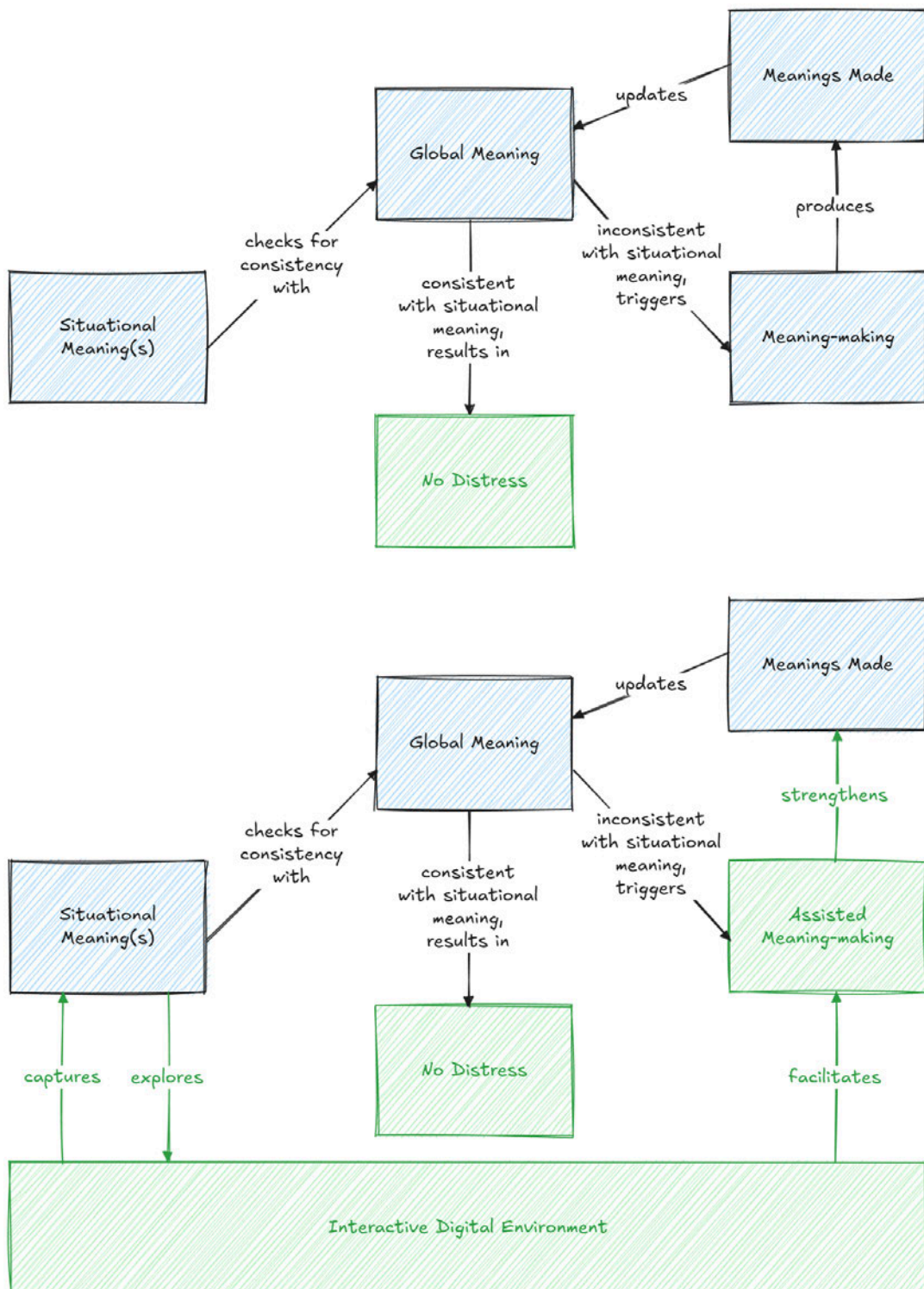


This concludes the derivation process for the M4PD. However, since meaning-making is a core human function, it also allows for general application. In

particular, the interactive digital environment can be used to strengthen the baseline meaning-making process.

Figure 20

Park's Meaning Making Model in the structure of M4PD's problem and solution component



III. Methodology

Research Design

The project is a practice-based research that aims to produce a personal knowledge base (PKB) in Obsidian that supports meaning-making. It builds upon my existing attempts to develop a multimedia prototype that addresses the determined need surrounding digitally-assisted meaning-making in psychotic depression — namely, the need to capture and display conflicting information and their relationships with each other without the use of nested hierarchy or linearity.

An **iterative design approach** was utilized for the project. The PKB was designed, developed, tested, and analyzed in repeating cycles of iteration (*Iterative Design*, n.d.). For customizing and extending the features of Obsidian, the following workflow was followed:

- 1) A system functionality could be improved, a system issue has been identified, or there is a need for a new functionality to be introduced in the PKB.
- 2) I look for an already existing third-party plugin to address the need or issue.
- 3) If there are no existing plugins available and if the available ones are too bloated, I create the extensions depending on what needs to be addressed:
 - a) If it requires creating a plugin, I use JavaScript.
 - b) If it is for customizing the appearance of the vault and the behavior of its user interface, I use CSS.
 - c) If it requires task automation and support for dynamic note behavior, I use JavaScript again.
 - d) If the determined solution cannot be a new functionality within the vault, I use Python to create an external tool that connects to the said vault.

All these programming relies on AI assistance, which will be discussed below.

Each iteration of the PKB was logged as a version under a **semantic versioning system**. Semantic versioning follows an `X.Y.Z` format, wherein `X`, `Y`, and `Z` are non-negative integers, without leading zeroes, that correspond to `MAJOR.MINOR.PATCH`, respectively (Preston-Werner, n.d.).

- `PATCH` updates include fixes or refinements that are backward compatible.

This means that existing functionality from the previous version of the PKB remains intact and continues to work the same way (Preston-Werner, n.d.).

- `MINOR` updates introduce new functionalities but are still backward compatible, and may also include patch level changes (Preston-Werner, n.d.).
- `MAJOR` updates introduce changes that are backward incompatible. Existing functionality from the previous version of the PKB is altered or removed, and will no longer work the same way. Major updates may also include minor and patch level changes (Preston-Werner, n.d.).

Some versions may also include additional metadata, when available, expressed as `+YYYYMMDD` after `X.Y.Z` to indicate the date of the update's completion and, consequently, implementation or deployment (Preston-Werner, n.d.). Additionally, versions in the initial development phase (`0.Y.Z`) start at `0.1.0` with the minor update indicator (`Y`) incremented for each release.

The PKB was designed and structured around select personal knowledge management techniques. These techniques were chosen on the basis of their functionality being suited for supporting meaning-making in psychotic depression. Each technique was reviewed and then adapted to the PKB. Upon the completion of the PKB's first official version (v1.0.0), it was then integrated into my everyday life. The next updates were made intermittently, only as needed. Each succeeding version was informed by insights from using previous versions.

In a later version (v2.1.0), where the core functionality of the PKB had been established and refined, a private dataset containing my documented firsthand accounts on psychotic depression and other personal information was imported into the PKB to further contextualize the design process on an if-needed basis — and, more importantly, to assess its feasibility in addressing the need for displaying conflicting information.

As the PKB is part of an ongoing project extending beyond the timeline of my undergraduate study, the version presented at the end of this report reflects an arbitrary point in its development, specifically, the PKB's latest update at the time of writing. The PKB is to be interpreted as a prototype, a continuing work-in-progress of an interactive digital environment that supports meaning-making.

Ethical Consideration

The project used insights from my firsthand account of psychotic depression. This carried a potential risk that revisiting past experiences with the condition could trigger distress or a relapse through repeated exposure to the media and multimedia products I made at the time.

To address this, I incorporated safeguards throughout the duration of the project consistent with the principle of respect for human dignity from the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2) (Canadian Institutes of Health Research [CIHR], Natural Sciences and Engineering Research Council of Canada [NSERC], & Social Sciences and Humanities Research Council of Canada [SSHRC], 2022)

I monitored my well-being carefully and took breaks when necessary. I also made an arrangement with my research adviser to inform her and seek immediate support should my mental health decline at any point in the project.

However, since my testing of the PKB included trying to make sense of my account of psychotic depression in an environment that assists meaning-making, I experienced minimal negative effects even after repeated exposure. Using and working on the PKB allowed me to generate new insights about myself and, consequently, to view my experience with the condition in a way that is more oriented towards personal growth.

AI Use Disclosure

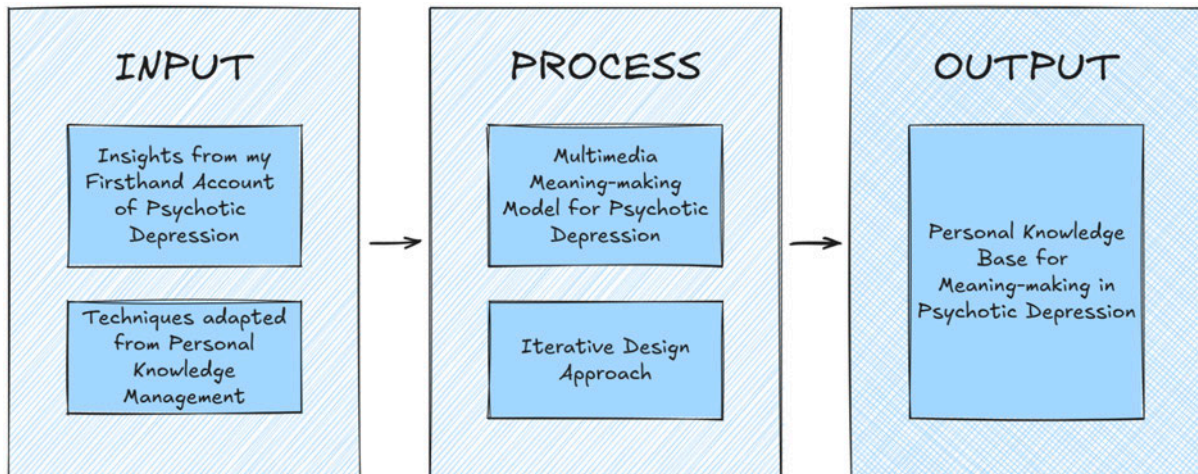
Artificial Intelligence (AI) services were utilized in this project. ChatGPT was used for ideation, a research companion to bounce ideas off, for assistance in conducting a manual security audit of the Obsidian plugins used, and for generating and refining preliminary code structures. All generated code structures are available in the appendices, labeled with citations to the corresponding large language model (LLM) used. These code structures were critically reviewed and refined to ensure accuracy and relevance to the project's objectives. Lastly, Grammarly was used for automated grammar checking.

Conceptual Framework

Figure 21 illustrates the application of the Multimedia Meaning-making Model for Psychotic Depression to my insights from firsthand experience of psychotic depression. It is achieved through an iterative design approach with the utilization of techniques adapted from personal knowledge management. The resulting output is a

multimedia prototype in the form of a personal knowledge base that captures and explores excessive situational meanings and facilitates assisted meaning-making, in particular, within psychotic depression.

Figure 21
Conceptual Framework



IV. Project Documentation

This chapter documents the implementation of the project and its results. It provides an overview of the core ideas and adapted personal knowledge management (PKM) techniques for the personal knowledge base (PKB). This overview also highlights the major features of the PKB, which are introduced and refined at various stages throughout the changelog. The chapter then proceeds with the changelog itself, written in the format of semantic versioning. Versions are presented in ascending order, beginning with the earliest version.

The chapter concludes with the latest version of the PKB. It discusses its notable functionalities, application in my private dataset, and the challenges and limitations encountered during development in Obsidian.

Core Ideas and Techniques

The personal knowledge base has four primary functions: (1) capture situational meanings, (2) explore situational meanings, (3) facilitate the formation of new meanings, and (4) generate a personal knowledge graph that maps the relationships emerging from the first three functions.

In order to enable these functions, a prominent question must be tackled: “How do we capture meaning?” With meaning being available to be appraised in any external or internal stimulus, the answer to the question is “to capture meaning; we must capture everything.” In the context of multimedia, everything means every multimedia modality — text, audio, image, video, animation, and webpages — as each is capable of producing meaning.

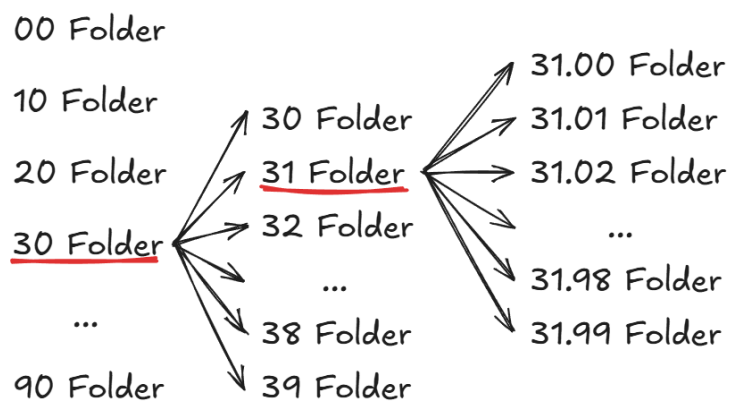
This functionality is already present in Obsidian; each file can be represented by a single node. As such, the exploration of these nodes, the creation of new nodes

from these nodes, and the personal knowledge graph of all the nodes already fulfill all the functions mentioned. The effort in creating the PKB is to be directed not in developing the primary functions but instead in making the process as smooth and accessible as possible. Techniques adapted from personal knowledge management enable this.

The first technique is **Johnny.Decimal**, an organizational method commonly employed for managing small business information or the entirety of an individual's personal documents, including their finances (Noble & Butcher, 2025). In its purely digital variation, everything is contained within three layers of folders. The first layer is ten folders, numbered as 00, 10, 20, 30, 40, 50, 60, 70, 80, and 90. Each folder contains ten more folders. For example, the folder 30 contains the folders 30, 31, up to 39. The third layer of folders is one hundred folders under each second-layer folder. In the example, this would be 31.00 to 31.99 in just the 31 folder.

Figure 21

The Johnny.Decimal System (Noble & Butcher, 2025)



The first layer is called **Area**, referring to a group of related categories. The second layer is the individual **Categories**. The third layer is a specific **Item Number**. Using the metaphor of a library, the first layer represents shelves, the second layer represents boxes, and the third layer represents file folders (Noble & Butcher, 2025).

Files can only be placed in the third layer (Noble & Butcher, 2025). Each file is therefore assigned a unique identifier under the Johnny.Decimal notation. The notation follows the format of $AC.ID$ where A is Area, C is category, and ID is the item number. The figure below illustrates an example.

Figure 23
Johnny.Decimal System applied to Personal Banking



From the example, one can easily infer the location of a file just from its unique Johnny.Decimal identifier. The file title “33.09 September 2025 Monthly Statement.pdf” is ambiguous, but since we know that 30 is an area that refers to files about our personal life, and its sub-folder 33 is the money category, we can assume that the monthly statement is related to banking, *i.e.*, a bank statement.

Each of the unique identifiers in the Johnny.Decimal system is written in a single master list called the **Index** or **JDex**. It can be under any format that displays text, and it contains what each area, category, and item number corresponds to (Noble & Butcher, 2025). The index does not include files of the system (Noble & Butcher, 2025). Files like the index and other administrative or management files of the system are located in the 00 area code or folders that end in zero (*e.g.*, 00.00, 30.00, etc.) — these are also known as **system folders** (Noble & Butcher, 2025).

It is also to be noted that it is not required to use all of the area or category folders; the system can be as small or large as the user intends it to be (Noble & Butcher, 2025). Noble and Butcher (2025) further argue that the one hundred IDs per

area category is more than enough to cater to everything in an individual's personal life or a small business. The limitation encourages users for thoughtful consideration about the names they assign to the folders in relation to the present scale of their system. If the system is expected to grow larger over time, then it is recommended that some area or category folders be left blank.

Thus, the Johnny.Decimal's characteristic of user-friendly scalability — along with making files easy to remember and quick to reference and access — makes it the ideal file management technique for a PKB. In the context of building a PKB for meaning-making in Obsidian, it can be suggested that its simple and consistent structure allows navigation amongst thousands of files to be second nature, and enables categorization in a manner that does not restrict continuous growth. Furthermore, Johnny.Decimal is suggested to be dynamic enough to cover all multimedia modalities and the many variations in their content.

Under the Johnny.Decimal system, the PKB can be sorted into areas such as 00 System, 10 Templates, 30 Journal, and so on. 00 System contains the index and other management files and scripts for automation. The 10 Templates folder contains note templates that can be called and applied when creating notes.

30 Journal can contain folders such as 31 Daily Entries and 32 Weekly Reviews. A journal is a powerful tool for meaning-making that primarily uses text, images, or videos. In the context of psychotic depression, it provides a private environment where individuals can practice self-empowerment, develop a cohesive view of the self, and reappraise situational meaning as subjectively meaningful (Green & García-Mieres, 2022).

Another area for consideration as a source of meaning is the materials we consume — such as books, movies, series, social media posts, and many more —

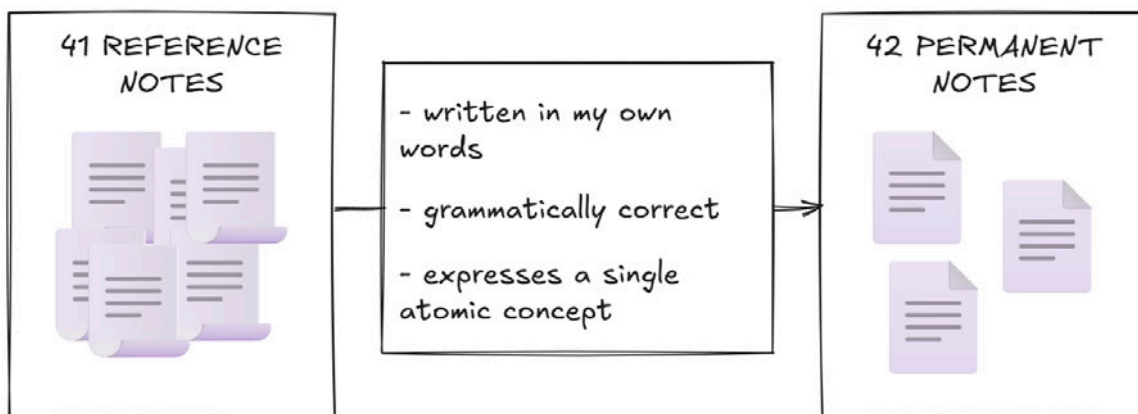
and the knowledge we extract from them. A technique is therefore needed for a workflow on knowledge management. For the PKB, I chose the **Slip-box** method, also known as **Zettelkästen**. The slip-box method involves notes that are written on paper slips or small paper cards. It traces its origins to as early as the 16th century (Cevolini, 2016) and has undergone numerous innovations and developments since then (Lamott, 2019). The variation that I implemented, albeit in a much simpler manner, is from the German Sociologist Niklas Luhmann, whose use of the Zettelkästen method allowed him to write fifty books, an estimated six hundred articles, and one hundred fifty unfinished manuscripts (Sascha, 2020; Schmidt, 2016). Under Luhmann's Zettelkästen, each note (also called a Zettel) exhibits three core characteristics: hyper-textual, atomic, and personal. The notes are hyper-textual because they use and refer to each other's information instead of just forming a static collection of text (Sascha, 2020). Each note is atomic, containing only one distinct concept (Sascha, 2020). Lastly, each note is personal. This means that the notes are private to avoid external influences such as audience expectations (Sascha, 2020). Personal also means that each note is written in one's own words. These characteristics together form a PKM workflow that is centered on connections instead of collection (Sascha, 2020), making it fitting for the PKB's purpose.

The modified slip-box in the PKB is located in 40 Slip-box, which contains two folders: 41 Reference Notes and 42 Permanent Notes. The 41 Reference Notes folder contains notes that are non-atomic. It includes detailed records about specific material made by others, as well as my own thoughts and observations on various topics. The 42 Permanent Notes folder, on the other hand, contains notes that are taken from 41 Reference Notes, either derived from them or transferred directly — provided they are grammatically correct, written in my own words, and restricted to a

single atomized concept. The workflow in 40 Slip-box is straightforward: detailed notes about specific materials, like a book or a web video, are written in 41 Reference Notes. From there, I extract sections that I find valuable into separate atomic notes stored in 42 Permanent Notes. If a note in the 41 folder is just comprised of my thoughts and expresses a grammatically correct atomic concept, it is transferred directly to 42 Permanent Notes.

Figure 24

Visualization of 40 Slip-box



Aside from knowledge management, studies show that work and making art create a sense of meaningfulness (Bendassolli, 2024; Pearson et al., 2024). Thus, it can be suggested that a multimedia technology that facilitates these actions results in better meaning-making. In the PKB, this idea is applied in 90 Output, positioned as the last folder in the system, which takes information from all the folders, except 00 System and 10 Templates, to facilitate the creation of an output from the meanings produced. The output may be in the form of traditional media, multimedia, performative art, physical objects, installations, and many more. The third layer of folders under 90 Output ranges from product ideation, user interaction, business information, and product metadata.

It is to be noted that for 90 Output, the format of the area code in its Johnny. Decimal notation has changed. Instead of 90 to 99, the folders need to account for the total volume of output that the user will create throughout their long-term use of the PKB. As such, the second layer of folders acts more similarly to a product ID than a category. They are labeled from 90A00 to 99Z99. Each letter contains 100 entries before incrementing — giving 90 output, a total capacity of 26,000 entries. Although not infinite, this number of entries is projected to be more than enough for long-term, lifetime use by an individual.

With the creation of outputs being facilitated by the PKB, the mechanism for facilitating the production of new meaning should also be discussed. The PKB uses a global keyword system, housed in 20 keywords, that can be applied to any note in 30 Journal, 40 Slip-box, and 90 Output. The keyword can be any word or phrase, but its formulation is what makes it functional. This is because, instead of categorization, the keywords prioritize retrieval. Users are asked, “When and how will I use this idea?” or “In which circumstances do I want to stumble upon this note?”

Keywords, stored as special notes, are automatically linked to the note that assigns them. These special notes can also be referenced and linked to other notes. Within the special note itself, the user can discuss the keyword in greater depth and produce a synthesis from the notes it is linked to. This entire process is adapted from the PKM concept of **Maps of Content** or MOC (Milo, n.d.; see also Miller, 2023), and corresponds with the function of facilitating new meaning as described in the four primary functions of the PKB. The workflow is then as follows: The user creates a note using text and other multimedia modalities in 30 Journal, 40 Slip-box, and 90 Output. Within these notes, as the user writes, they can assign a keyword. Another entry from 30 Journal, 40 Slip-box, and 90 Output connects to this keyword,

regardless of the module they are located in. The user can then proceed to write a synthesis that draws upon these entries to further their understanding of the keyword. It is also to be noted that keywords may link to other keywords, and new keywords can be created within them — forming what could be metaphorically described as a *super keyword*.

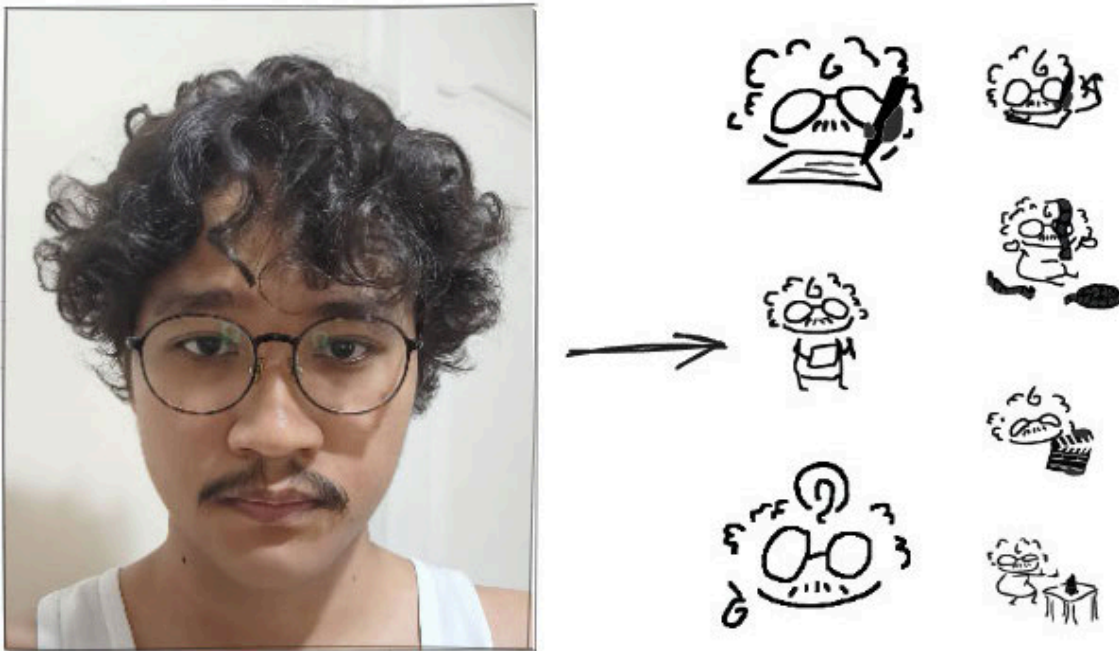
As any word or phrase can become a keyword, it becomes exceptionally useful for understanding the experiences of psychotic depression since the condition involves the generation of neologisms. **Neologisms** are newly generated words or phrases that may be caused by cognitive disturbances in psychotic experiences (“Neologisms in Schizophrenia,” n.d.). People who are undergoing a psychotic episode may create new words or assign new definitions to existing words to describe their warped reality (“Neologisms in Schizophrenia,” n.d.). Within the PKB, a user may write their neologism as a keyword and assign it to a note that describes their psychotic experience. Further linking on the neologism keyword enables in-depth discussion, which can be suggested to significantly increase the likelihood of interpretation in grounded reality. Once interpretation is made available, it can be suggested that a suitable assistance or a treatment plan can be determined by the user, or by a professional who has been given supervised access to the PKB.

Since the PKB is a personal environment for facilitating assisted meaning-making, I made efforts to increase its personalization. The most prominent of which was the design and implementation of an avatar. The avatar is a cartoon version of myself, aptly named **Chri**. Chri originated from a series of drawings my peer, Anna Porsche Gutierrez, and I made of each other during our time together (see Appendix B for copyright transfer agreement). The illustrations were integrated into the PKB as part of the empty page and can also be added to notes as an image. For clarification,

Chri is only implemented in my PKB. Future PKBs developed from the findings of this project should use a different avatar and apply different personal customization, such as the accent color for the Obsidian vault.

Figure 25

Chri as the avatar of my PKB, inspired by my face



Research on avatars suggests that they can be powerful multimedia features for identity exploration and motivation for application usage (Birk & Mandryk, 2019; Wood & Szymanski, 2020). However, clinical studies remain inconclusive on its effects on mental health (Six et al., 2022). Given this mixed result, my use of an avatar in the PKB is less about clinical efficacy and more about creating a personalized and engaging point of identification for interacting with the PKB.

All in all, the personal knowledge base for meaning-making was produced by adapting elements of Johnny.Decimal, the Slip-box method, and Maps of Content, combined with digital journaling, output pipelines, and the integration of a personalized avatar.

Changelog

The following changelog shows the development of the PKB, starting with the initial development phase up to the most recent version at the time of writing this report. It is not intended to be read as a detailed narrative but rather as documentation of the steps and decisions made through which the PKB was created.

0.1.0+20240807

- Started with the YouTube video “Fantasy fiction writing using Obsidian with Eleanor Konik” (Anthony’s Desk, 2019) for general understanding of Obsidian and design inspiration
- Focused on the Johnny.Decimal system (Noble & Butcher, 2025) to create a folder structure and its index
- Initial Zettelkasten setup and the 4 essentials: Atoms, References, Files, and Templates folder from Kirsanov (2021)
- Initial setup on Obsidian's settings using the video by Schmitz (2023) as a guide
- Initial setup for the folders on outputs using the video by LegendFiction (2024) as a guide
- Reviewed Workman’s (2024) Obsidian vault as inspiration for the structure of the output folder’s sub-folders
- Took some inspiration again from Eleanor Konik for folder structure changes (Konik, 2021a)
- Looked into Eleanor Konik’s plugin list (Konik, 2021b), but most are outdated, unnecessary, or already implemented in the base Obsidian.

- Used the video by Omi (2020) and a Reddit comment from copybara_warrior (2021) to further refine the 40 Slip-box
- Added a Structure Guide and a Markdown Guide

0.2.0 (6 changes)

- Changed 30 Log to 30 Journal, and added "Health, Work, Relationships," and "Goal, Accomplishments, Reflections" to the template
- Removed folders in 41 Reference Notes, since it might not be useful to divide them into folders
- Created a Reference Note template, along with properties for 41 Reference Notes
- Removed 18 Essays and 80 Essays; entries here should be added under 90 Projects.
- Added 90101 Untitled Project as a placeholder to avoid file naming confusion.
- Removed #Ongoing status since it's not really necessary; this is because a user is already aware of what area they are currently working on.

0.3.0 (3 changes)

- Installed the Dataview plugin
- Added 03 Management
- Changed the format of journals to focus on reflection

0.4.0+20250121 (6 changes)

- Removed 00 Index. Since all the files in the PKB are localized within Obsidian and there are no external files, the file structure itself on the left panel works

as the index. This also allows real-time updating instead of manually updating a text file every time a new folder is added or changed.

- Updated the Daily Entry template to make it less structured
- Removed the Monthly Roundup since the current method of accessing it is not as user-friendly in practice (triggers only at the end of the month)
- Revised the area code for 90 for easier readability and changed the title from 90 Projects to 90 Output
- Added an AC.00 folder for administrative matters under the folder structure template of 19 Output
- Updated the Structure Guide to reflect changes

0.5.0 (6 changes)

- Added Daily Entry (Weekly Review) template for the Journal. It is designed as a weekly review on developing better habits (lead measures).
- Added the QuickAdd plugin so I can apply note templates much faster. All I need to do is select a template, and the resulting note will be placed in the correct location with the correct title and in the correct formatting.
- Added back Monthly Roundup as a monthly variation of Daily Entries
- Added Monthly Roundup to QuickAdd
- Markdown Guide updated to reflect common shortcuts; more will be added on an "if-used" basis.
- Updated the Structure Guide to reflect changes

1.0.0+20250325 (64 changes)

- **First official version release!** The PKB is now implemented in my daily life.

- Templates
 - Added a third layer of folders in 10 Templates, AC.01 denotes folder entries while AC.02 denotes folder structures.
 - Merged all keywords into a single folder, 20 Keywords and 12 Keywords.
 - Updated 12.01 Keyword Note template in QuickAdd to add "... (MOC)" in title for easier recognition under multiple notes and graph view.
 - Separated 41 Reference Notes to Fleeting Notes and Material Notes (with both having their respective keywords). Fleeting notes act as a placeholder for information that is to be processed and sorted according to type. Material notes are for specific works made by others.
 - Implemented fleeting notes and material notes in QuickAdd, accessed by hitting F9.
 - Merged 14.01 Permanent Note and 14.01 Permanent Note with Ref, removed the references section and its accompanying admonition. Writing references + keyword + 5 phases of zettelkasten (linked to a 41 Reference note) is redundant and takes too much effort. Ideally, it would just be the keyword + the note links in the lower right sidebar.
 - Updated QuickAdd windows for the templates to have more user-friendly questions.

- System
 - Renamed "Markdown Guide" to "User Guide"
 - Added 02 Management in the left-hand sidebar.
 - Updated 02 Task Management to the following priority system: #Edit, #ToFollow, and then #Available.

- Added an Updated and Created Today view that filters and shows all the notes that fall within the said category. This is originally made for internal implementation in daily notes; however, I cannot get Dataview to utilize the file metadata of notes, and consequently, output what has been done and updated during a specific date (the daily note's title). This is even true for inline JavaScript queries in dataview.
- Added a Fleeting Notes Tracker that provides a list-type view for all notes linked to Fleeting Notes (MOC) and is under 41 Reference Notes, sorted by last updated as first.
- Added Ghost Files Checker that scans all non-existent links in the PKB, sorted by oldest-created as first. Note: The dataview code processes all notes in the system and all links within it. This can cause a noticeable lag in performance, especially when it is open.
- Index
 - Changed the notation of 90 Output. This underwent numerous variations before reaching the present notation.
 - 90 Output from 90.000 - 99.999 to 90A00 - 99Z99, changing the total possible outputs from 10,000 to 26,000.
- Graph View
 - Pinned the Graph View tab
 - Added a local graph view on the right sidebar of the screen
 - Updated the global graph view to serve its purpose (linking nodes) much better. Only takes information from 20, 30, 40, and 90.
 - Added colors for 20, 40, and 90 graph nodes
 - Removed tags in graph view to focus on ideas only.

- Disabled Features

- Disabled bookmarks. Bookmarked notes (00.02) are added to the sidebar instead to reduce the number of clicks.
- Disabled properties view. It causes visual clutter and often shows information that is not really necessary, since it just shows a list of properties. Additionally, searching for properties and tags on the lowest level (note-specific and blocks, respectively) is possible by using the Search functionality on the left sidebar.
- Disabled tag view. It causes visual clutter and is too overwhelming.
- Disabled Dictionary, since the synonym function does not always work
 - For future reference, a 41 Dictionary Entry Note (MOC) was created that links to autogenerated notes from the plugin.
- Disabled Wordy, the Synonyms and Antonyms feature is not good.
- Cleaned up the ribbon menu; the criteria are based on whether or not a button is just a visual clutter. If it's possible to do it in a shortcut, then the user should do that instead. However, I might go back on this change for the purposes of general accessibility.
- Disabled `colored-folders.css`. While the functionality is great, the folder colors do not remain static, which is a big issue for me since color coding is important for better association.

- Added Features

- Added Audio Recorder (core plugin). Click on the mic icon in the ribbon menu to record an entry in an active note.
- Added Note composer (core plugin), requires an existing output note

- Added Random note (core plugin). Click the dice icon in the ribbon menu to open a random note.
- Added Rename Files Label, an Obsidian plugin that I created with guidance and preliminary code from ChatGPT (see Appendix C).
- Added Hover Editor + Hotkeys for specific files
 - Using the Hokeys for Specific Files plugin, F11 is assigned for the User Guide, and F12 is assigned for the Structure Guide.
 - Created 03 Scripts to house various scripts for Obsidian
 - Implemented a QuickAdd macro that utilizes `openDailyNoteInHover.js` (see Appendix C), which runs Alt + H (open new hover editor) and then Alt + D (open daily notes in hover editor) through a single F10 command.
- Added Contextual Typography. It does not provide any native functionality, but allows `readingview-headings-spacing-adjustment.css` to work.
- Added Force note view mode
- Added Hider
- Added Iconize
- Added Outliner
- Added Typewriter Scroll. I merged it with Minimal Theme's Focus Mode using a QuickAdd Macro, including the toggling of left and right sidebars — launched through Alt + E.
- Minimal Theme Implementation
 - Includes Minimal Theme Settings and Style Settings plugins

- Changed multiple settings in different plugins since they conflict with the minimal theme settings. Specifically in Image Converter, the Drag & Scroll Resize is disabled since it causes images to jump around, and the implementation is awkward — use the contextual menu instead.
- Made changes to Dataview, Headings, Images, Links, Lists and tasks, Properties, Sidebars, Tabs, Tags, Titles in style settings for the minimal theme and Title bar background/foreground for the hover editor.
- Turned off indentation guides in Editor settings.
- CSS Snippets (see Appendix D on each `.css` file for further information about what each of them does)
 - Original snippets
 - `class-content-shift-up.css`
 - `class-hide-properties.css`
 - `image-converter-captions-fix.css`
 - `readingview-add-space-dataview-tables-and-lists.css`
 - `readingview-center-images.css`
 - `readingview-customized-ordered-list.css`
 - `styling-purple-tag-nodes.css`
 - Modified snippets (unless otherwise specified, all CSS snippets are licensed under the MIT license)
 - `chri-empty-page.css` modified from sai1494 (2023)
 - `readingview-headings-spacing-adjustment.css` modified from mr_abomination (2022), no formal license, general permission granted by the original author
 - `remove-pin-icon.css` modified from damikiller37 (2023)

- `styling-command-palette-accent-color.css` modified from rushi (2023)
 - `styling-gummy-callout.css` modified from kneecaps (2023a)
 - `styling-quote.css` modified from ApolloGoneRogue (2023)
- Imported snippets
 - `class-equal-space-dataview-columns.css` (sailKite, 2023)
 - `styling-tooltip-accent-color.css` (kneecaps, 2023b)
- Added a CSS classes table guide to the User Guide for reference.
- Updated the `.png` Chri names in 01 Files for easier recall
- Updated the Structure Guide to reflect changes

1.0.1 (7 changes)

- Transferred Formatting Test and other test notes in 91A00 Obsidian Meta
- Non-file internal links, block links, and subheading links now use page preview instead of hover editor
- Created `readingview-internal-links-styling.css` (see Appendix D). Non-file internal links, block links, and subheading links are now colored purple in reading view.
- Footnotes now use page preview instead of the hover editor, leaving only file links to use the hover editor.
- Created `styling-footnotes.css` (see Appendix D). Footnotes are now colored purple in reading view, making links using page preview also purple.
- Renamed `styling-purple-tag-nodes.css` to just `styling-tag-nodes.css`, colors are now similar to the background hover color for tags,

just reversed. Light green for dark theme and dark green for light theme (still disabled by default in graph view)

- Changed the node color for 70 Research; uses light orange for readability.

1.1.0 (2 changes)

- Updated the formatting of 13.01 daily entry to just be an empty page, mimicking a blank page in a paper journal
- Updated the title of 13.01 monthly roundup to be the same as weekly reviews

1.2.0 (3 changes)

- Changed the AC numbering system for 90 to use attribution (what AC can be closely attributed to the file) instead of being based on order.
- Updated the code for 02 dataview tables for a cleaner looking output, file names are now "AC" + "File name" instead of "Second Folder/Third Folder".
- Updated the Structure Guide to reflect changes

1.3.0 (2 changes)

- Updated Obsidian from 1.8.9 to 1.8.10
- Enabled Web Viewer core plugin

1.4.0 (4 changes)

- Implemented Companion Notes for the Canvas using QuickAdd, which allows the addition of #Edit, #ToFollow, and #Available that can be tracked by 02 Management. This is created as a solution to the problem that the #Edit, #ToFollow, and #Available tags do not show up in the tag pane or in the

02 Management notes. They only show up in search results. This is because a card in a canvas is an editor, not a note (Markdown file). Therefore, the tag is not indexed into the metadata cache unless the card becomes a note. After multiple different Dataview queries, this workaround has been chosen.

- Implemented companion notes for previously made canvas, follows the same process as creating a new canvas with a companion note.
- Added creation shortcuts for Canvas and Kanban board
- Updated User Guide to reflect changes

2.0.0+20250619 (41 changes)

- Security and Plugin Management
 - Conducted a manual security audit of the current list of plugins, checking for potential security risks
 - Opened each plugin's GitHub page and checked the issues section for reported security issues.
 - Searched for each plugin in Obsidian Stats, the lowest score being Typewriter Scroll (probably because it is an old plugin), followed by Smart Typography.
 - Plugin Update Tracker has posed some risk, but is recommended by ChatGPT as safe after its assessment (see Appendix F for the transcript)
 - Uninstalled Wordy and Dictionary since they're no longer being used. Use the web viewer instead for dictionary access.
 - Uninstalled Typewriter Scroll due to potential security risk from low Obsidian Stats score.

- Uninstalled the Hider plugin, scroll bars are back
- Disabled Auto Focus in Hover Editor
- Installed Smart Typography Plugin with adjusted settings
- Ghost Files Checker Plugin Replacement
 - Updated Ghost Files Checker to not include 10.01 Canvas Companion
 - Replaced Ghost Files Checker with "Find orphaned files and broken links" plugin (bundled with QuickAdd Macros) for better performance.
 - Transferred Ghost Files Checker in 91B20.01 for Archival Purposes
- Canvas to Excalidraw Migration
 - Removed creation shortcuts for Canvas and Kanban Board
 - Deleted QuickAdd Template for Companion Notes for Canvas and archived the template file in 91B20.01
 - Removed Canvas core functionality
 - Installed Excalidraw Plugin with adjusted settings to mimic *diagrams.net* functionality
 - Manually converted canvas files in the vault to excalidraw files
 - Created Excalidraw template file with 01 Excalidraw Notice.
 - Implemented Excalidraw naming convention using the following moment.js format `DDDo-HHss.excalidraw.md` (can be renamed)
- QuickAdd Macros and Templates
 - Implemented a QuickAdd Macro that utilizes `addNew90Entry.js` (see Appendix C) to automate the folder structure process when creating a new 90 entry (with validity checks).
 - Optimized the run QuickAdd function with better-named templates and `sorted multi` options

- CSS and Styling Updates
 - Updated `styling-quote.css` to remove extraneous design elements, such as its icon, since it takes up too much space
 - Implemented a new `colored-folders.css` (see Appendix D) that no longer uses iterative colors for the folders rather uses a static color assignment based on the `data-path` value (needs to be updated in the rare event of changing the 00-90 Assignment).
 - Adjusted the color of the nodes in graph view using `colored-folders.css` as a guide. Node colors had their saturation bumped up to provide contrast against other nodes in the graph.
 - Adjusted `styling-tag-nodes.css` to change the color of the tag nodes in graph view to be black/white under light/dark mode
 - Expanded `readingview-customized-ordered-list.css` from three levels of numbered lists (1. > a. > i.) to nine levels of numbered lists (1. > a. > i. > 1. > a. > i. > 1. > a. > i.)
 - Renamed `chri-empty-page` to `styling-empty-page-chri.css`
 - Created `styling-empty-page-list.css` to modify the buttons in the empty new tab and remove the “Create New Note (Alt + N)” option to avoid confusion from “Create New Fleeting Note (Ctrl + N)”
 - Updated `styling-empty-page-chri.css` with an updated drawing that addresses the flat lightbulb top and the cut hand portions, also includes margin adjustment for `styling-empty-page-list.css`

- UI, UX, and Performance
 - Unpinned Graph View to improve performance (launcher is present in the ribbon menu)
 - Updated 02 Updated and Created Today in the left-hand sidebar to sort in descending order (latest first)
 - The right-hand sidebar is now only made up of two sections, and outlines are moved to the bottom.
 - Resized the right-hand sidebar to make local graph views more effective and intentional in purpose. This limits the right-hand sidebar to full screen only.
 - Added shortcuts for toggling the left and right sidebar
- Created 50, 60, 70, and 80 placeholders for the index
- Added an extensive guide on processing fleeting notes using Excalidraw under the Fleeting Notes Tracker (it should be updated when values are assigned to 50, 60, 70, and 80)
- Tools Folder and Mobile Companion Vault
 - Created 04 Tools to house external tools for PKB Management
 - Created the Companion Vault v1.0.0 for quick capture support for the PKB vault. It is a mobile-based vault designed to quickly capture entries for 20 Keywords, 30 Journal, and 40 Slip-box.
 - Created 04.01 Companion Vault Sync (see Appendix E for Python script), an upload-only sync application that transfers non-existing notes from the companion vault to the PKB. It includes a config.json for customization and a log creation feature.

- The companion vault is locally housed in the mobile device and is copied online to Google Drive using Autosync.
 - Autosync refreshes every 5 minutes, and 04.01 copies the files from Google Drive onto the local companion vault in Desktop.
- Significantly revised the User Guide to improve the note's readability and reflect changes.
- Updated the Structure Guide to reflect changes

2.1.0+20250624 (16 changes)

- Comprehensively upgraded and revamped 04.01 Companion Vault Sync to include several new functions
 - Now detects both new and updated files instead of only new ones
 - Introduces a preview window that shows files to be copied or updated before syncing
 - Let users select which updated files to overwrite (with checkboxes)
 - Added an optional full vault reset feature with:
 - Base vault restoration
 - Backup of protected files
 - Optional full hidden backup before reset
 - The application now protects specific files and images from being deleted during a reset
 - Added detailed sync and reset logs with timestamps and summaries
 - Improved visuals using ttkbootstrap for cleaner components and icons
 - Ensured PyInstaller compatibility with proper asset paths

- Added safety checks like (1) file explorer detection before reset, and (2) retry logic when deleting files
- Refactored and organized code into modular, readable sections
- Added the Importer plugin to transfer notes from Google Keep and Notion
- **Imported the private dataset from Google Keep and Notion containing my entries on lived experience with psychotic depression.**
 - Number of Notes: 7,874
 - Total Number of Files (including non-text files): 12,271
- Fixed an issue where F10 is no longer working by linking the Alt + D hotkey to the "Open today's daily note" command again.

2.2.0+20250709 (20 changes)

- `colored-folders.css` overhaul
 - Reserves space for the scrollbar so the folder background color no longer jumps when it appears.
 - Cleaned the code of unnecessary lines
 - Improved code readability significantly
 - Made the design more intentional and standardized by using only four color variables for UI (not including backgrounds): `--default-color` matches the default text and icon color in the sidebar, `--hover-color` matches the accent color, `--active-color` uses white and black for light mode and dark mode for maximum contrast, and `--default-reversed` for a very specific "has-focus" state.
- Removed Create New Board, Importer, and Drawing from the ribbon menu
- Created a new admonition, `ad-pkb`

- Updated `styling-gummy-callout.css` to add borders to `ad-pkb`
- Resized Hover Editor window
- Assigned sub-folders for 43, 44, 45, comprising of `AC.00 Admin`, `AC.01 Archive`, `AC.09 Cold Data`, `AC.20 Assets (imported files)`, and `AC.40 Notes`.
- Transferred imported files from Notion in 01 Files to 44.20
- Replaced QuickAdd: 20 Keywords template choice with a smart and comprehensive 20 Keyword macro choice that uses `addNew20Keyword.js` (see Appendix C).
 - The script includes the previously made automated keyword note creation using the template found in `10 Templates/12 Keywords/12.01 Entries/Keyword Note.md`.
 - Provides a brief instruction on how to write effective keywords in the text box.
 - Inserts `Keyword Title (MOC)` under `Keywords:` in the active file.
 - If `Keywords:` is missing, it creates the line and places it just below the frontmatter if one exists.
 - Removes duplicate links and sorts them alphabetically.
 - Applies smart Title-case formatting when the input is all-lowercase or all-uppercase. This correctly formats apostrophes (Schrodinger's Cat), ampersands (Black & White), and hyphens (Spider-man).
 - Supports dictionary overrides via `00 System/03 Scripts/keyword-dictionary.json` (case-insensitive match).
 - Validates input to block:
 - Forbidden characters (`* \ / < > : | ? # % ^ { } []` etc.), emojis, invisible symbols.

- Unbalanced parentheses and filenames that start with a period.
- Changed the minimalist theme settings of both light mode and dark mode background contrast from All white and Low contrast to Default

This concludes the changelog for the personal knowledge base for meaning-making. Beginning with the deployment of the pre-release version 0.1.0 on August 7, 2024, the PKB had a total of 181 changes up to version 2.2.0 on July 9, 2025 — a duration of 11 months and two days, excluding the development time for version 0.1.0. The initial development phase consisted of four iterations prior to the first official release (v1.0.0), which marked the use of the PKB in my daily life. Version 1.0.0 received 1 patch update and 4 minor updates. The second official version, on the other hand, underwent 2 minor updates. It included the import of a private dataset from Google Keep and Notion containing my entries on lived experience with psychotic depression.

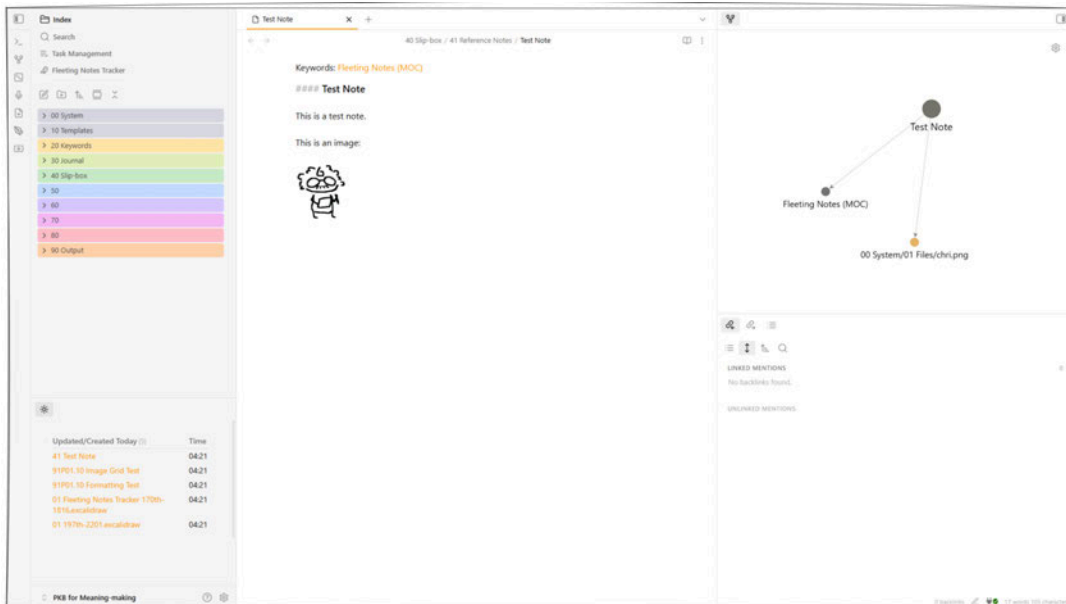
Version 2.2.0 Product Showcase

Building upon the development process discussed in the changelog, version 2.2.0 is the most stable and feature-complete release of the personal knowledge base for meaning-making to date. This section presents how the PKB functions in practice; not all features of the Obsidian vault are shown, but the most notable ones, along with the vault structure, are showcased.

Starting with the application's user interface, the **left sidebar** contains features for the global management of all files in the PKB. In contrast, the **right sidebar** contains features for the local management of the current active file. Lastly, the **main window** displays the current active file, where each file is equal to one tab.

Figure 26
PKB's Main Interface

WITHOUT LABEL



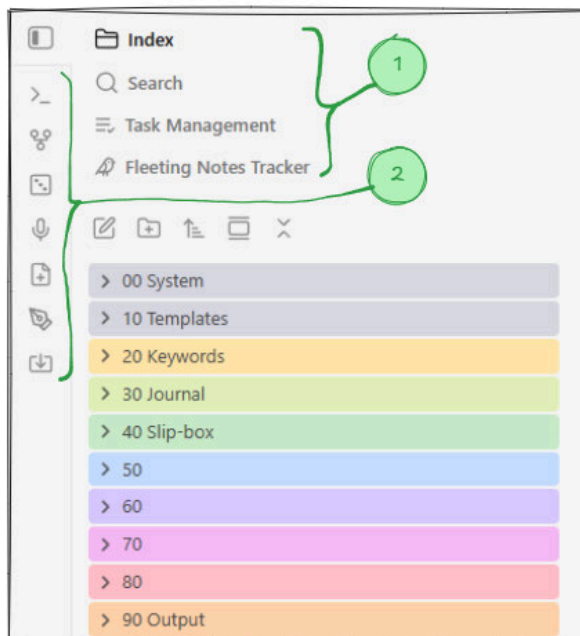
WITH LABEL





Zooming into the left sidebar, the upper area contains the (1) global management features and the (2) application ribbon.

Figure 27
PKB's Left Sidebar A: Index



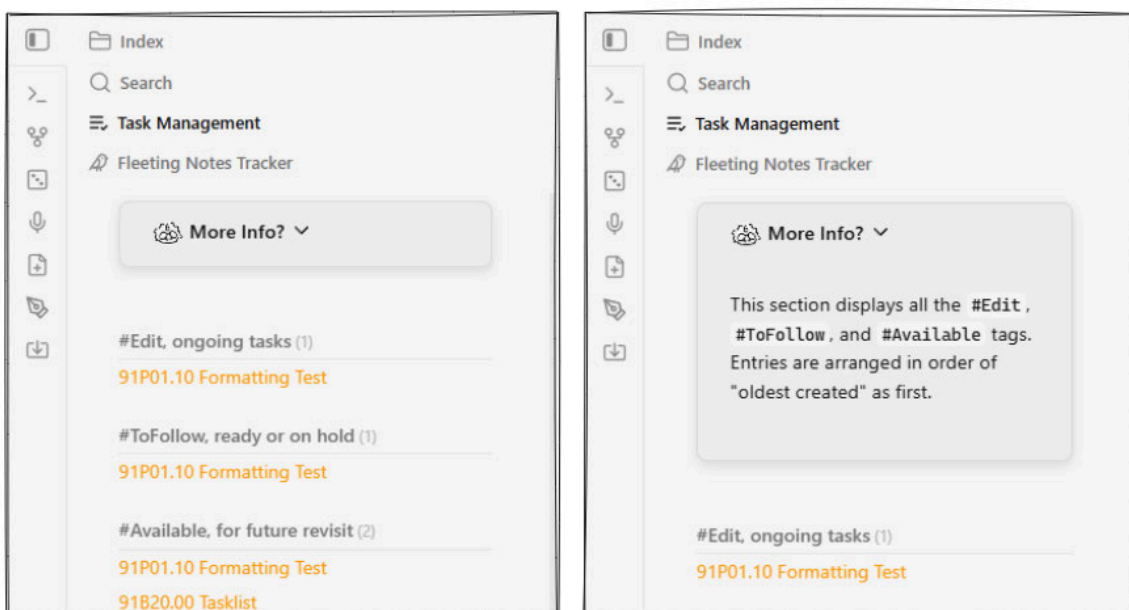
The **ribbon** contains buttons for specific commands within Obsidian. While the global management features are separated into the Index, Search, Task

Management, and Fleeting Notes Tracker. The **Index** corresponds to the Johnny.Decimal Index/JDex of the PKB. It is an automatically updating list of the Johnny.Decimal structure and doubles as the main way for navigating the folders and their files in the personal knowledge base.

The **Search** feature scans the entirety Obsidian vault based on parameters specified by the user. The user can filter for the file path, file name, file tag, specific lines or headings, and note properties. It also includes the search history.

The **Task Management** feature is the only productivity-related feature of the PKB. It shows three separate lists for the global tags used in the vault: #Edit, #ToFollow, and #Available.

Figure 28
PKB's Left Sidebar B: Task Management

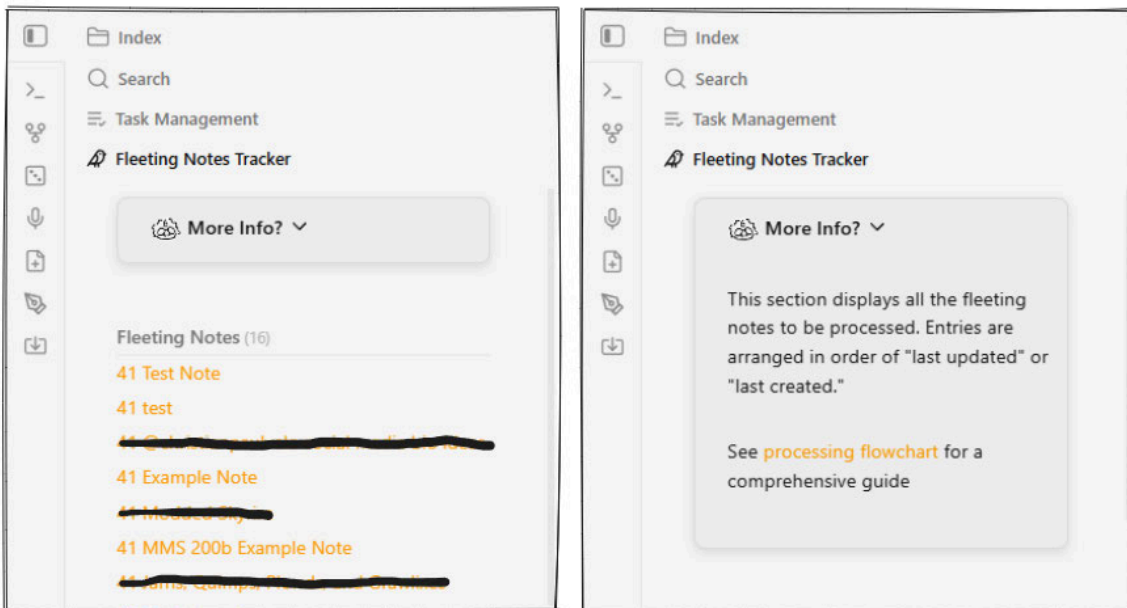


The entire use of tags in the PKB system is limited only to these three. They are meant to indicate the priority of tasks around the vault. It is to be clarified that the

PKB is not a productivity application; as such, the Task Management feature is designed in mind to connect to external productivity tools.

The fourth feature for global management is the **Fleeting Notes Tracker**.

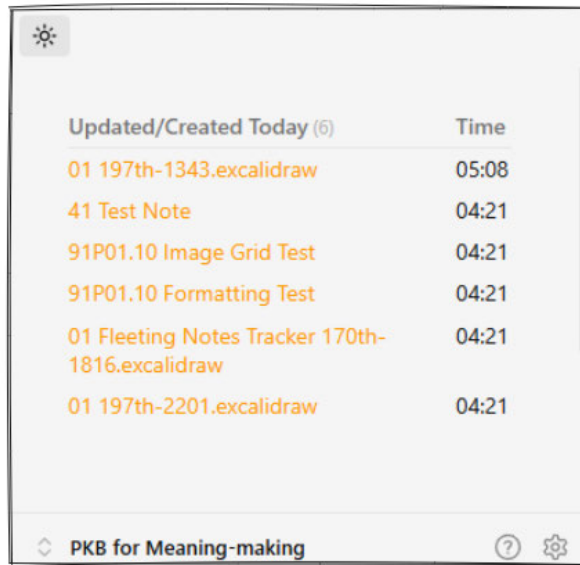
Figure 29
PKB's Left Sidebar C: Fleeting Notes Tracker



Fleeting Notes refer to the notes in 41 Reference Notes that only include my own thoughts and observations on various topics. The notes about specific material made by others are called **Material Notes**. Fleeting and material notes fall under reference notes. The fleeting notes tracker lists down all the fleeting notes in the vault, providing a reference sheet to easily determine the notes that can be transferred to 42 Permanent Notes, or in 90 Output — if the content of the fleeting note is related to production instead of an atomic concept.

The last feature, located in the lower left sidebar, is the Updated/Created Today view. It shows the list of notes that are updated or created on today's date. The notes are arranged in descending order, latest first.

Figure 30
PKB's Left Sidebar D: Updated/Created Today View

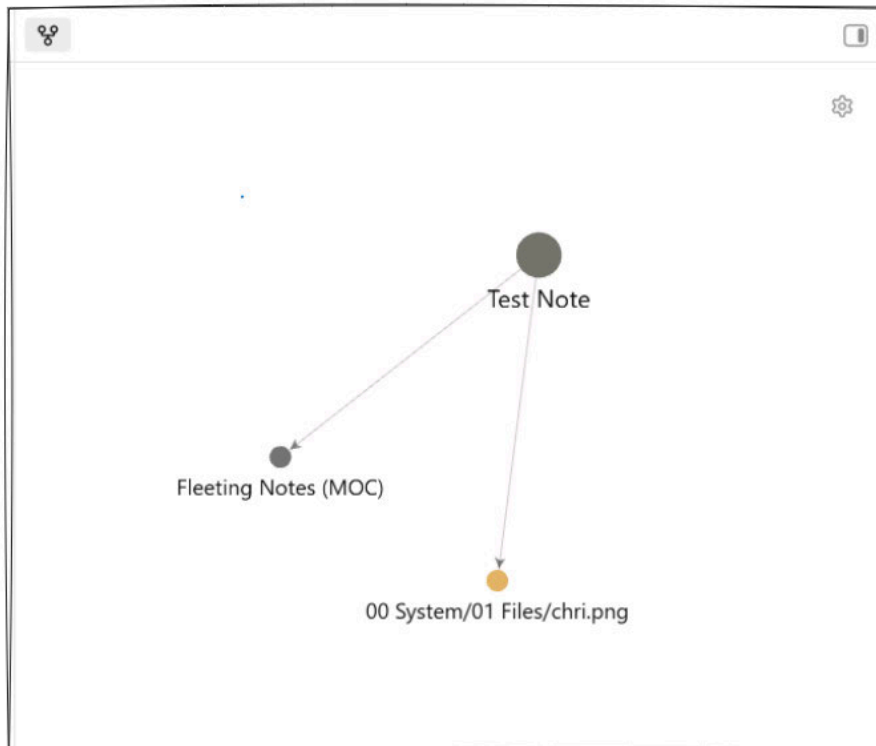


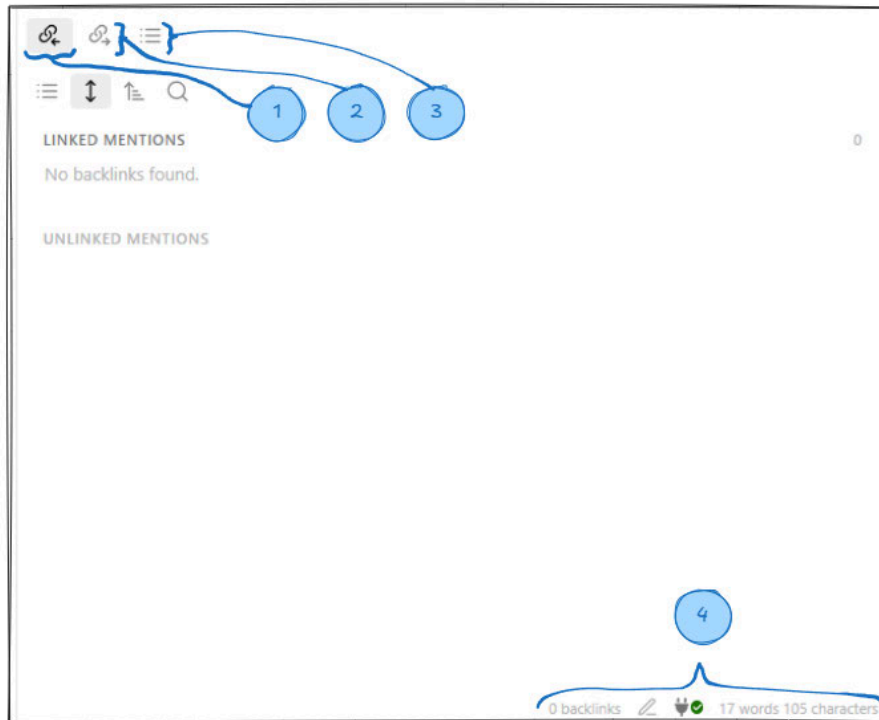
Updated/Created Today (6)	Time
01 197th-1343.excalidraw	05:08
41 Test Note	04:21
91P01.10 Image Grid Test	04:21
91P01.10 Formatting Test	04:21
01 Fleeting Notes Tracker 170th-1816.excalidraw	04:21
01 197th-2201.excalidraw	04:21

PKB for Meaning-making

The right sidebar is composed of two windows: the local graph view and the note links and outline.

Figure 31
PKB's Right Sidebar





The **local graph view**, located in the upper window of the right sidebar, is a personal knowledge graph consisting only of the active note and the notes it is linked to. The **note links and outline section** consists of the note's (1) backlinks, (2) outgoing links, and (3) outline of its headings. Backlinks are links from other notes that connect to the active note, while outgoing links are the links in the active note that connect to other notes. For further clarification, backlinks are for what comes into the note, and outgoing links are for where the note goes.

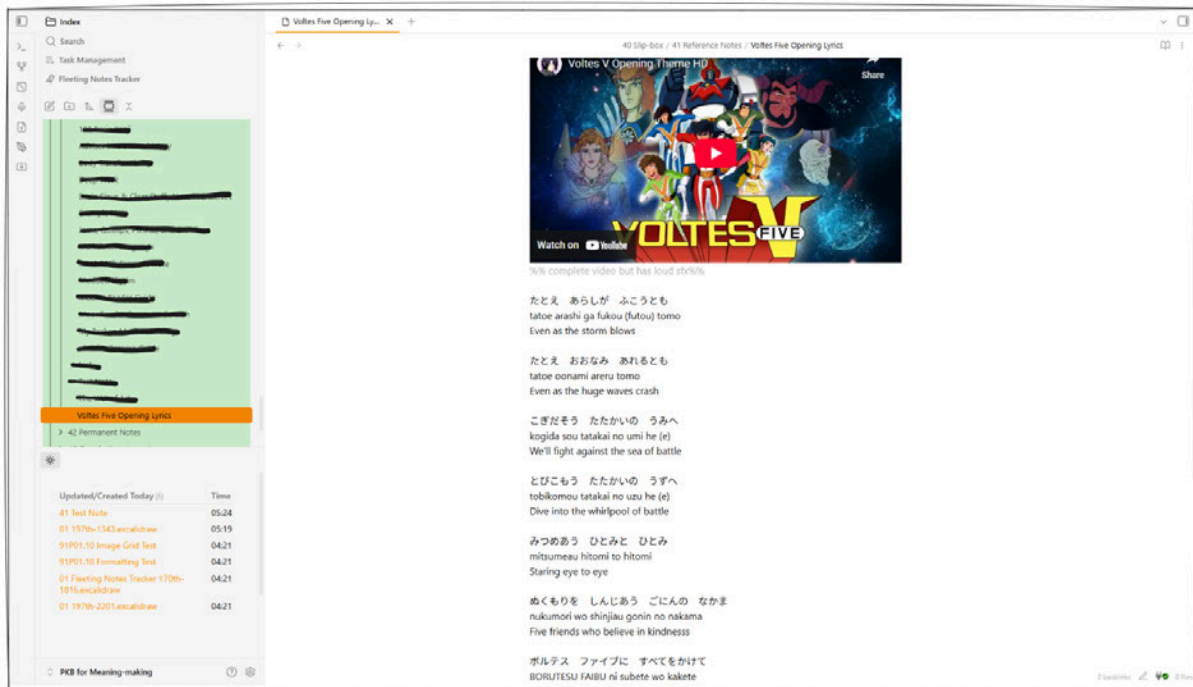
There is also a (4) multi-purpose indicator at the bottom right of the application. It is not part of the right sidebar. It shows the number of backlinks and word count, amongst other miscellaneous information. All in all, these are the parts that comprise the main interface of the PKB for meaning-making.

One of the key features of the PKB is its capacity to contain sources of situational meaning by capturing them in the form of different modalities in multimedia. The figure below provides an overview of these modalities.

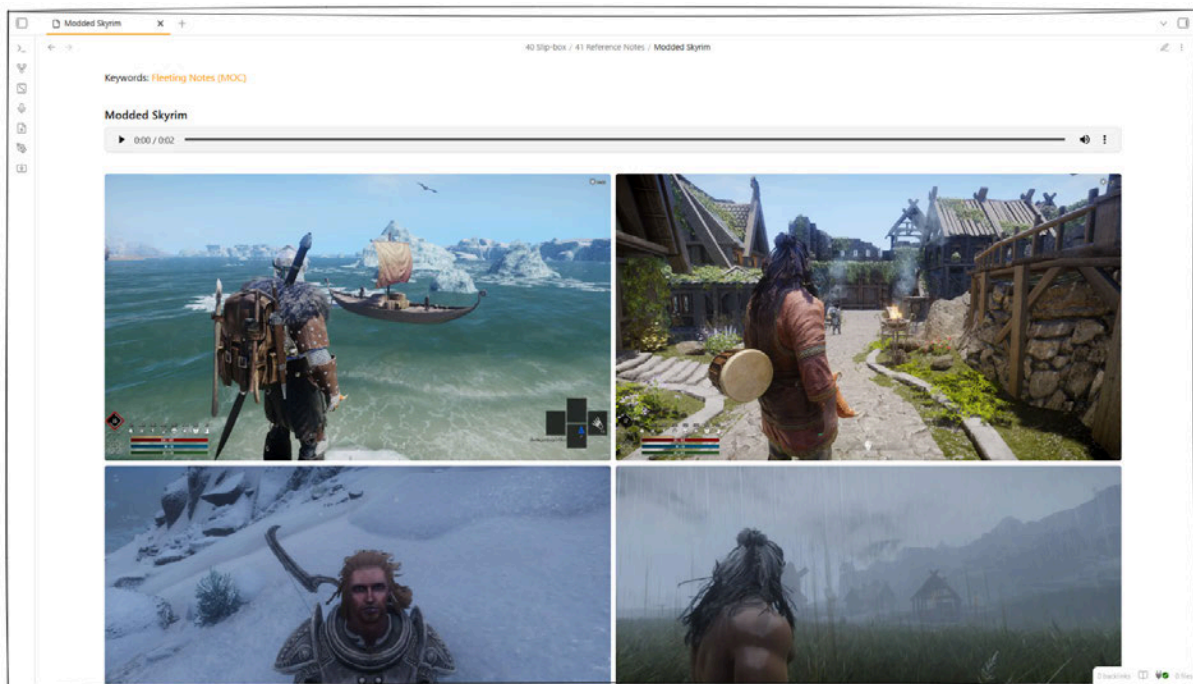
Figure 32

Media Modalities in the PKB for meaning-making

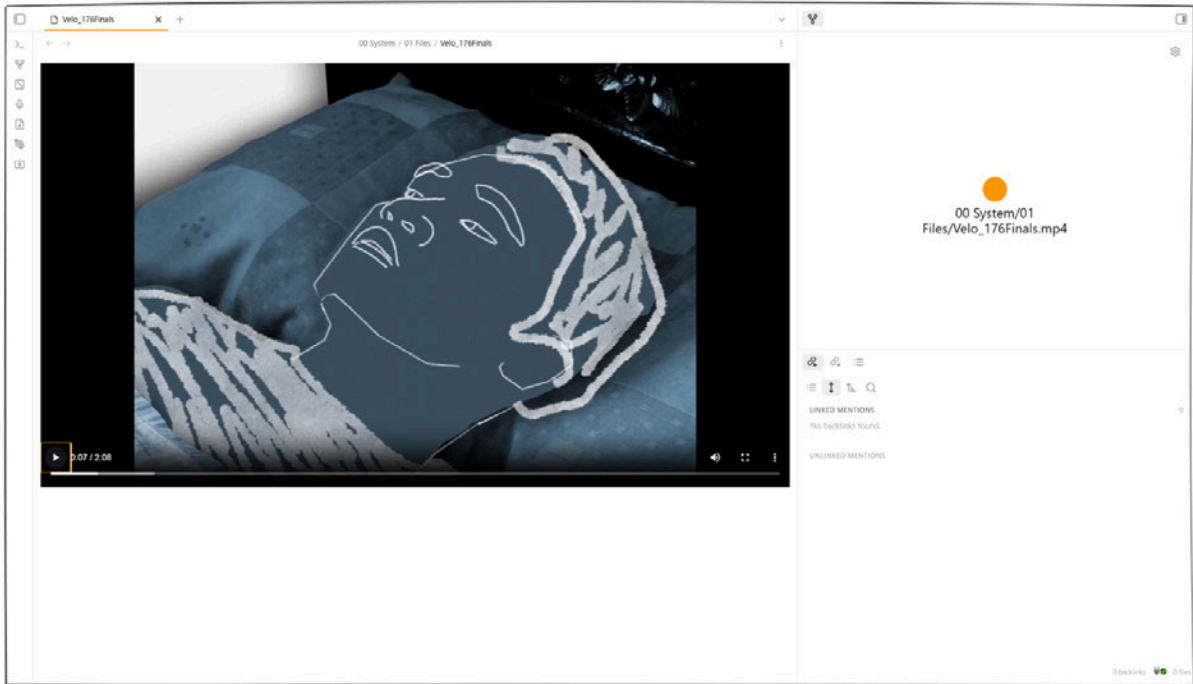
Text and Web Embeds (Markdown):



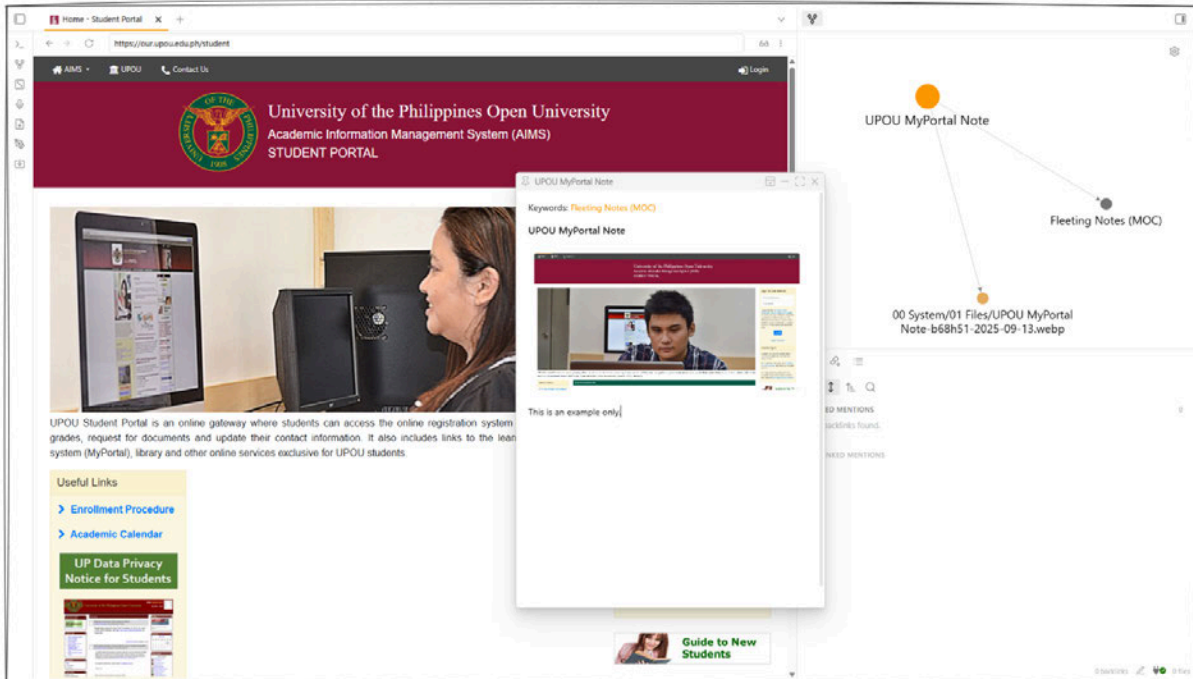
Images and Audio Recording:



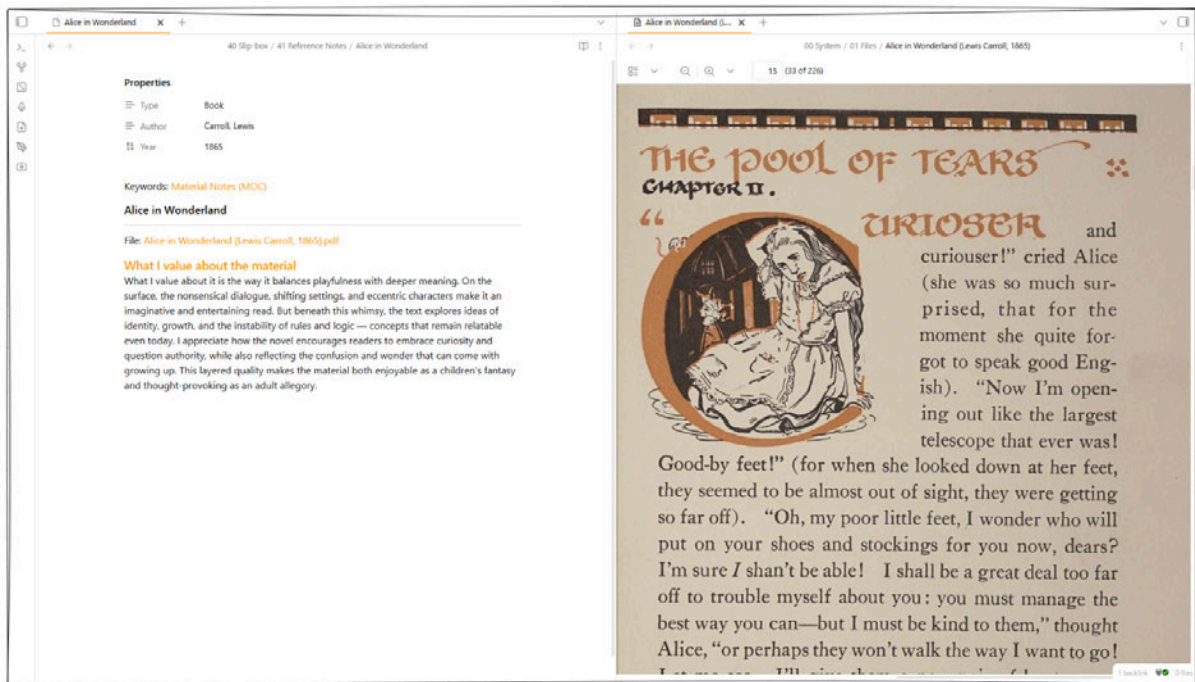
Video / Animation:



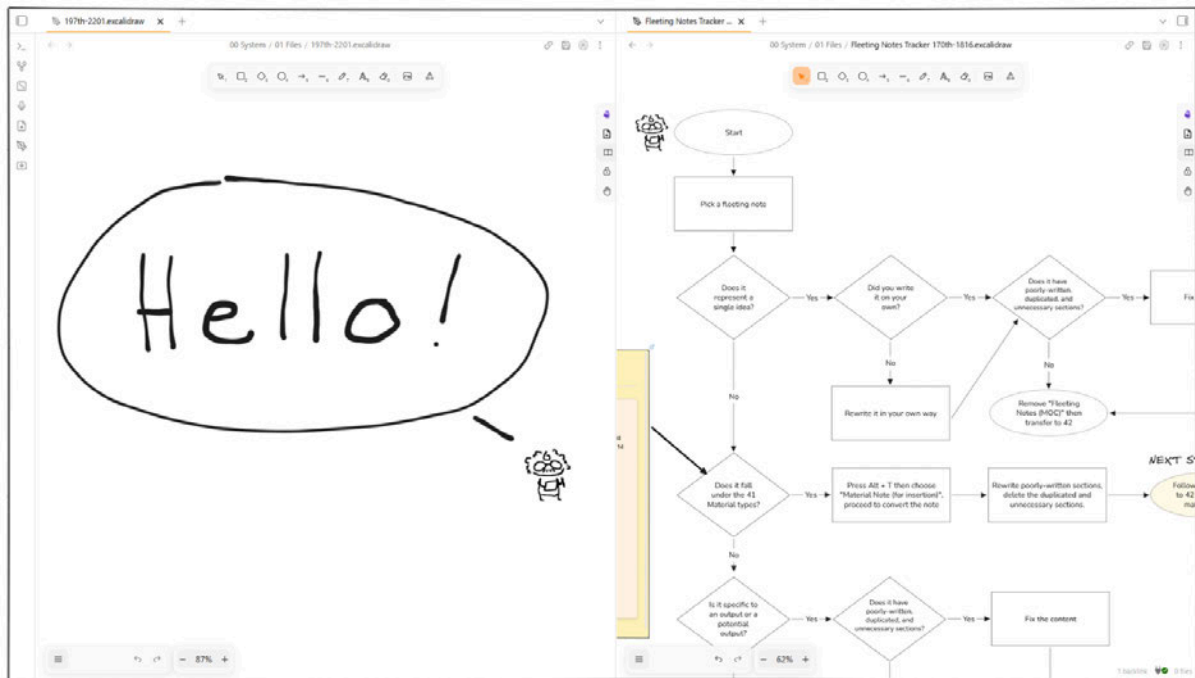
Webpage with a Note on a Hover Window:



Note and a PDF file:



Digital Drawings:



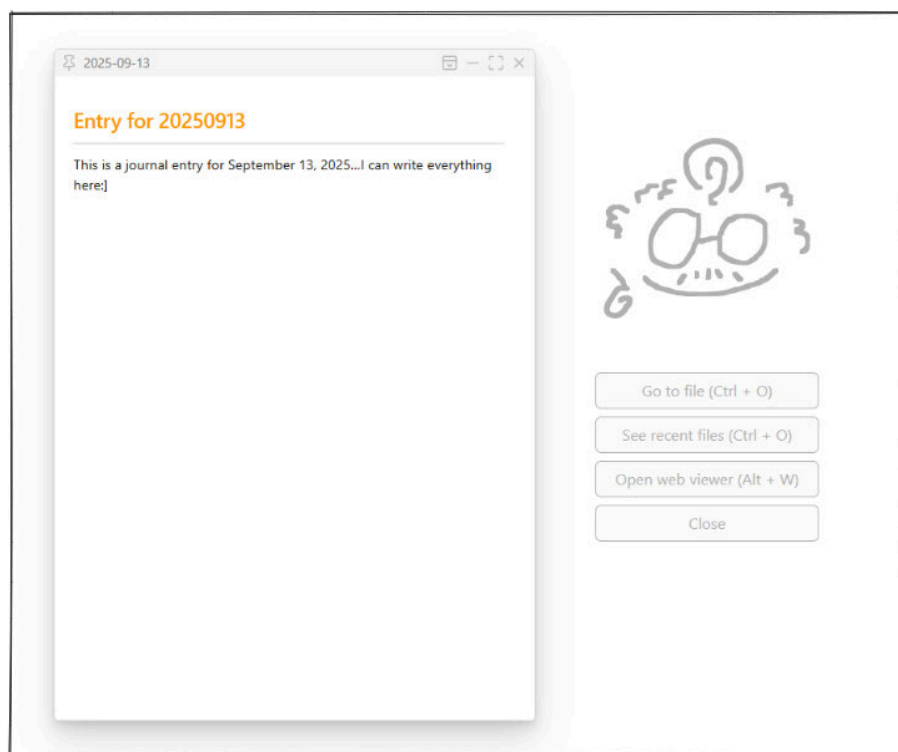
These modalities, in turn, are used in multiple modules within the PKB system. These modules are referred to in the same manner as their folder names in the index: 00 System, 10 Templates, 20 Keywords, 30 Journal, 40 Slip-box, and 90 Output. Within each module is a self-contained functionality that can be implemented, modified, or removed depending on the needs of the user without affecting the rest of the system. There are a few exceptions to this, which are the 00 System and 10 Templates modules, wherein the system files and note templates of the PKB are stored, respectively.

The rest of the modules have their own set of workflows. They will be discussed in the following order: 30 Journal, 40 Slip-box, 90 Output, 20 Keywords.

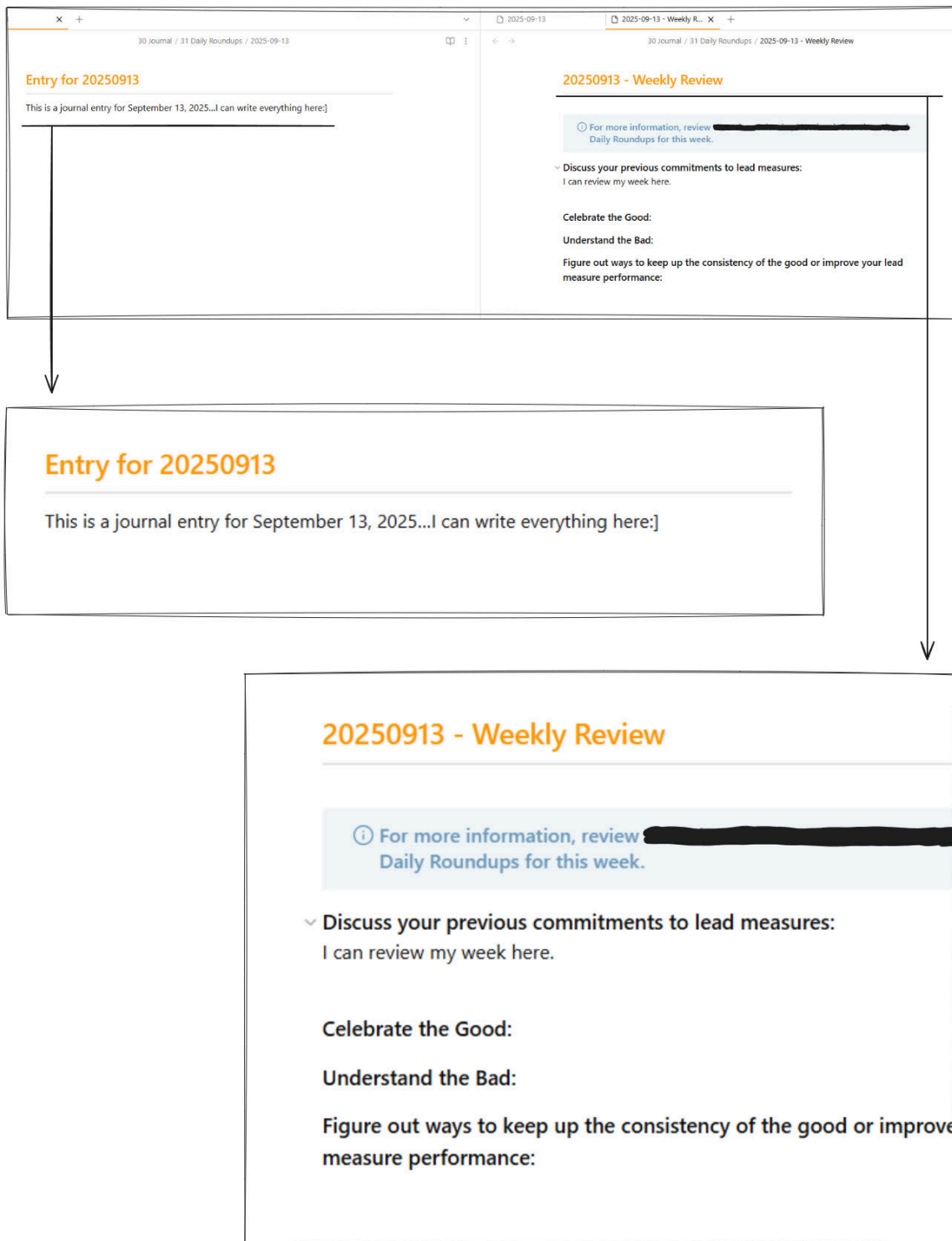
Figure 33

30 Journal Module Workflow

The user can press an assigned shortcut, which brings up a hover window for today's daily journal entry.



The same journal entry can be opened in a new tab and reviewed during a weekly entry.

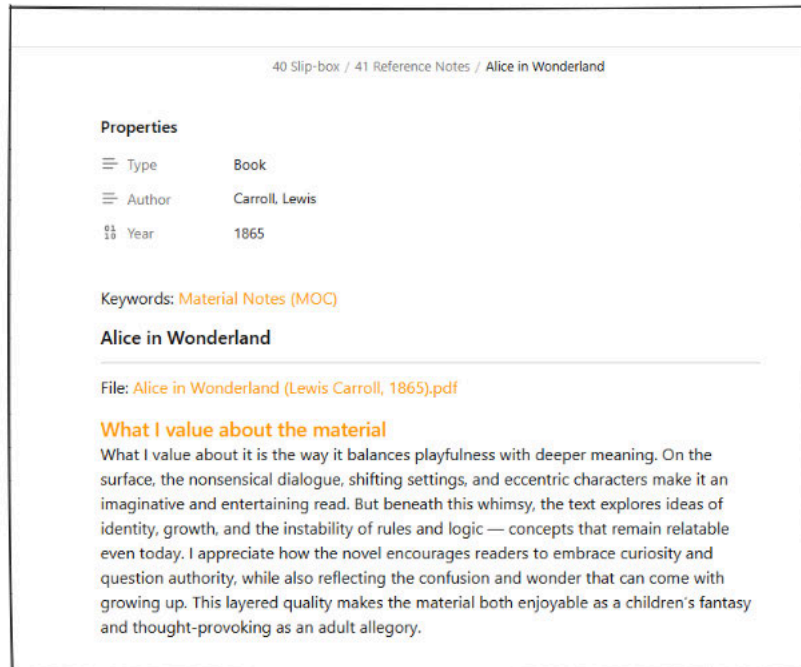


The weekly journal entry is designed around concepts related to developing better habits, such as lead measures by Franklin Covey (n.d.).

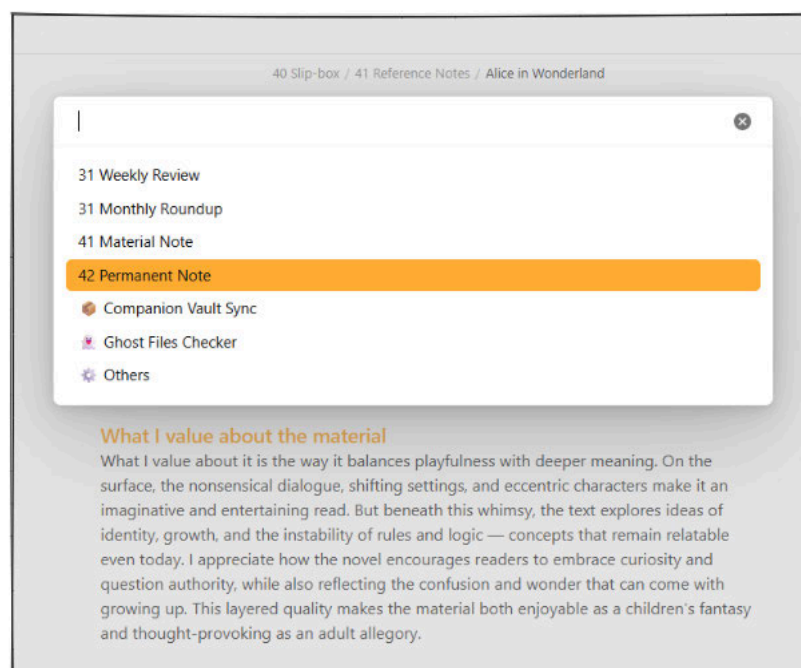
Figure 34

40 Slip-box Module Workflow

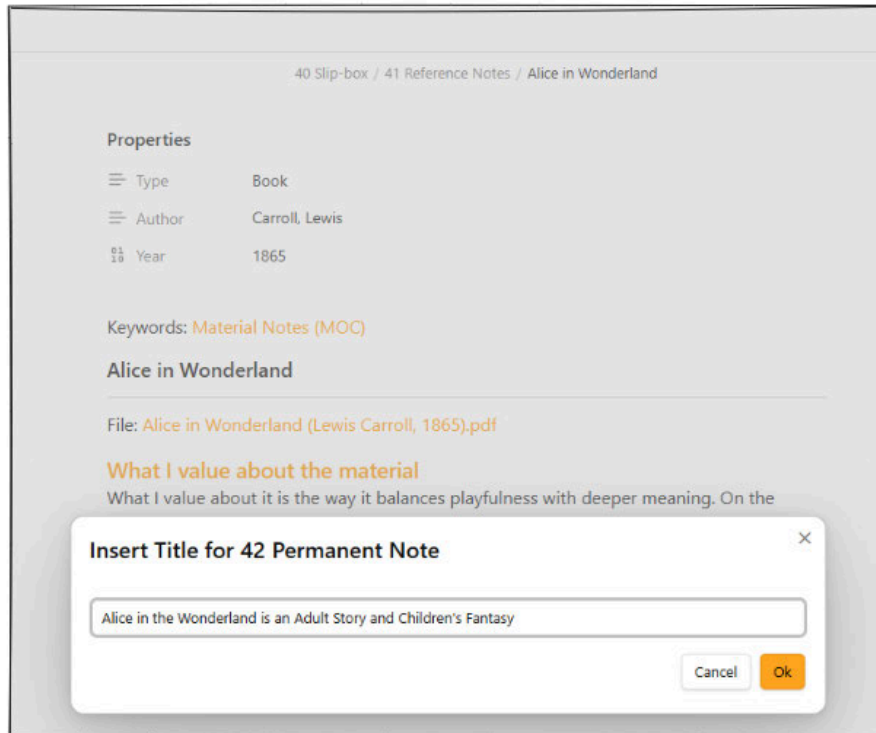
This is an example material note, *Alice in Wonderland*, in 41 Reference Notes.



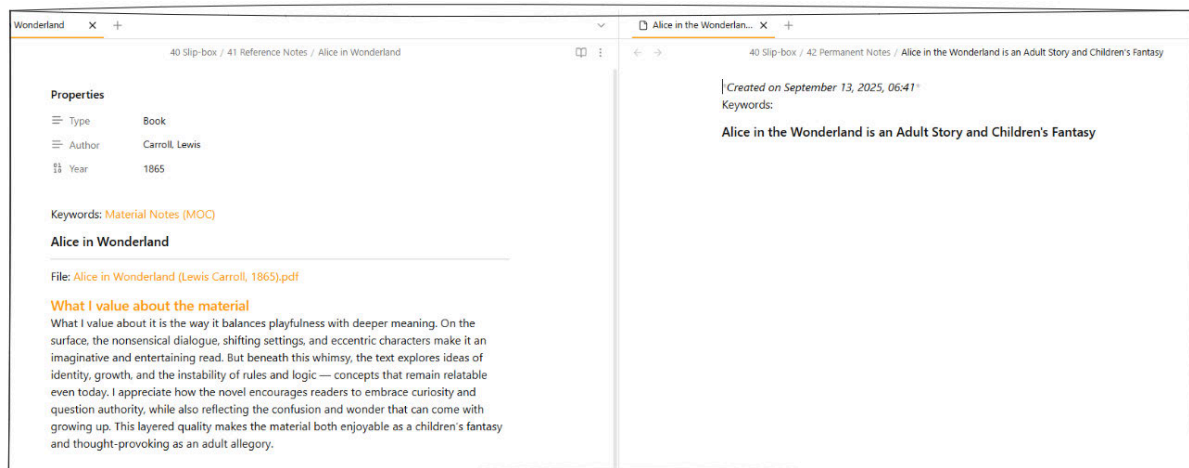
The user can press a shortcut or manually launch the quick add dialog box and pick "42 Permanent Note."



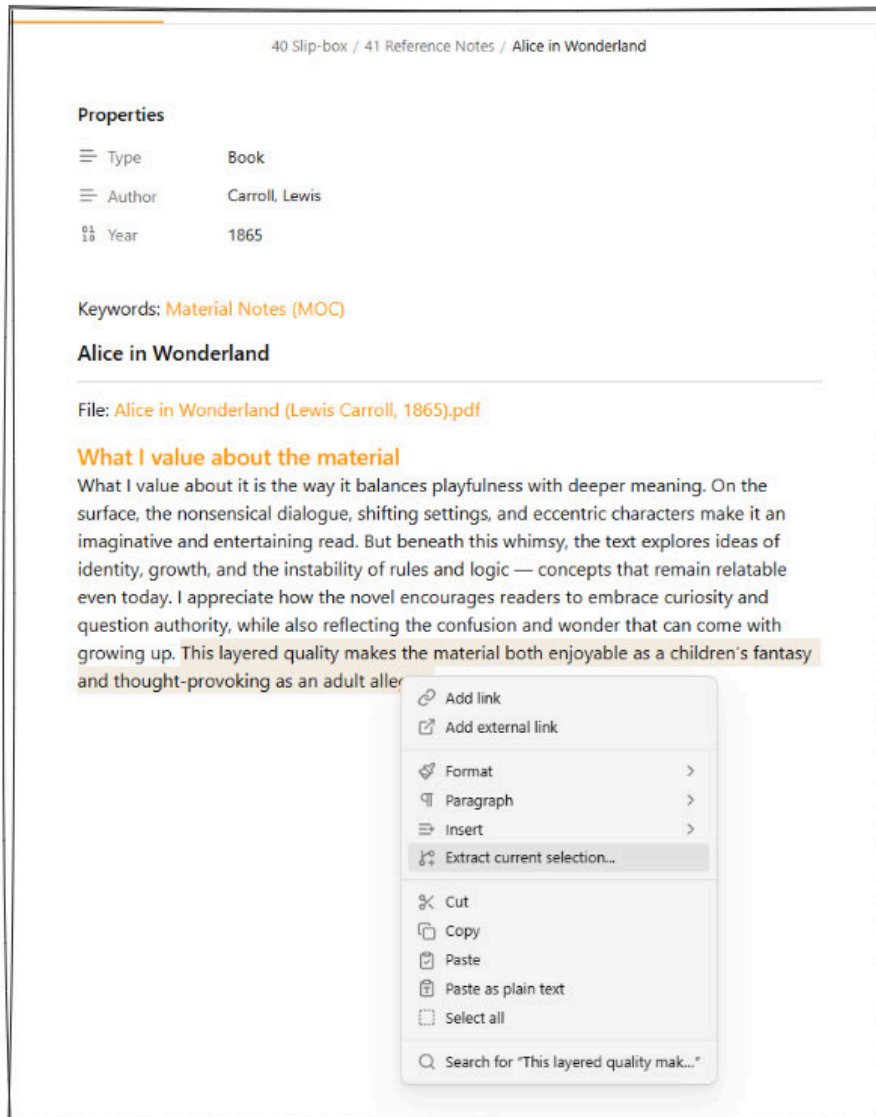
The user inserts a title for the permanent note. The title should reflect a single atomic concept that the user desires to transfer to the note. For example, "Alice in Wonderland is an Adult Story and Children's Fantasy (combined)."



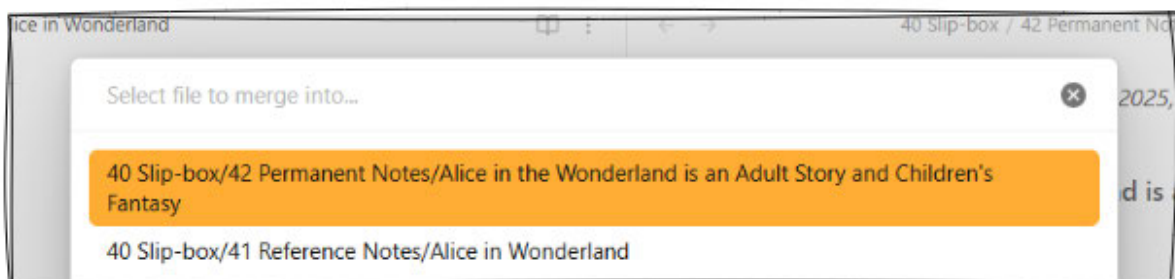
The generated permanent note opens alongside the material note.



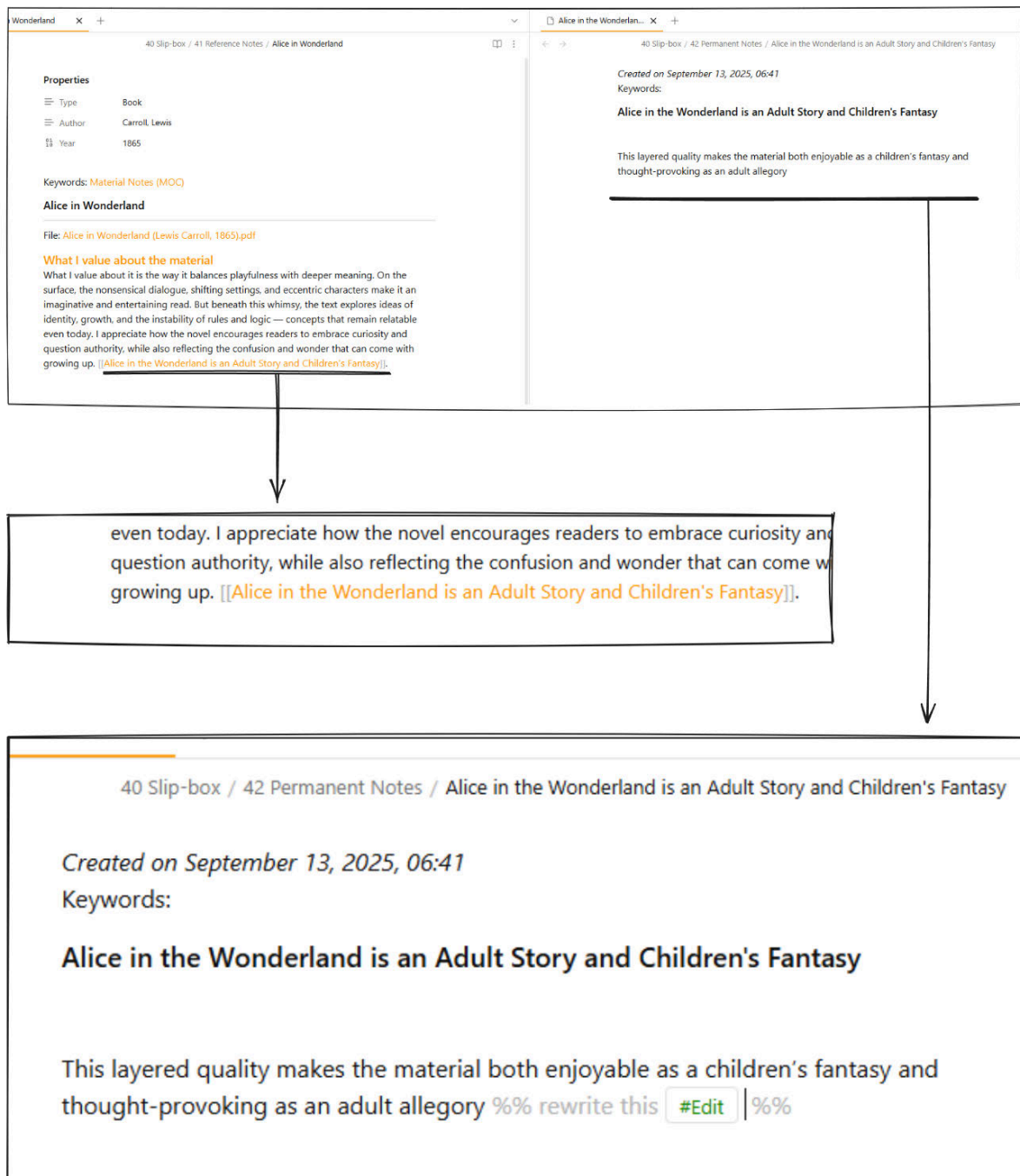
The user highlights the text in the material note that is attributed to the atomic concept in the newly created permanent note. They then choose "extract current selection" in the right-click context menu.



A dialog box appears, and the user picks the created permanent note.



The selected text is automatically transferred to the permanent note, leaving behind an outgoing link in the material note.



The user can then proceed to write on the permanent note, or opt to tag the note with a priority-based status tracker (e.g., #Edit for highest priority), should the user want to revisit it again at another time.

Figure 35

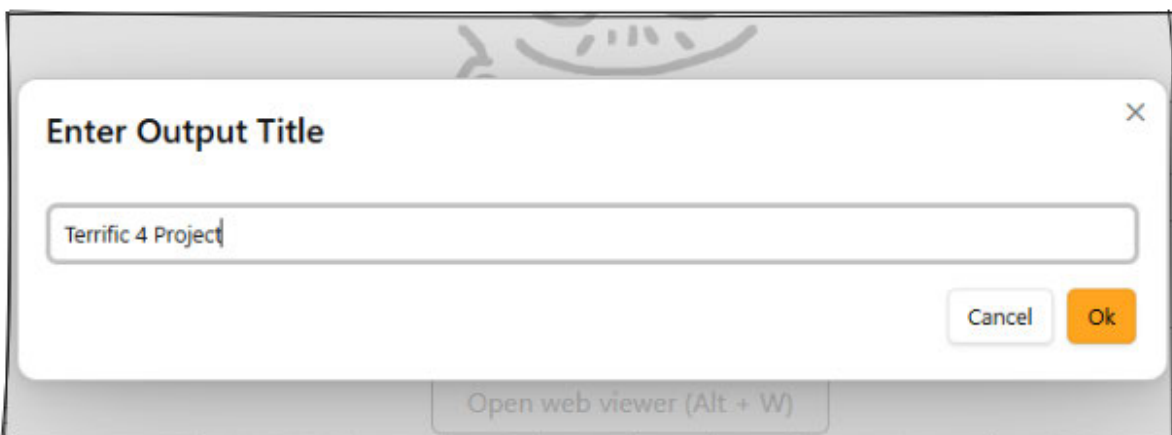
90 Output Module Workflow

The user can press a shortcut or manually launch the output creation dialog box. A required output code is provided by the user based on an arbitrary sense of code assignment that is related to the output's name.

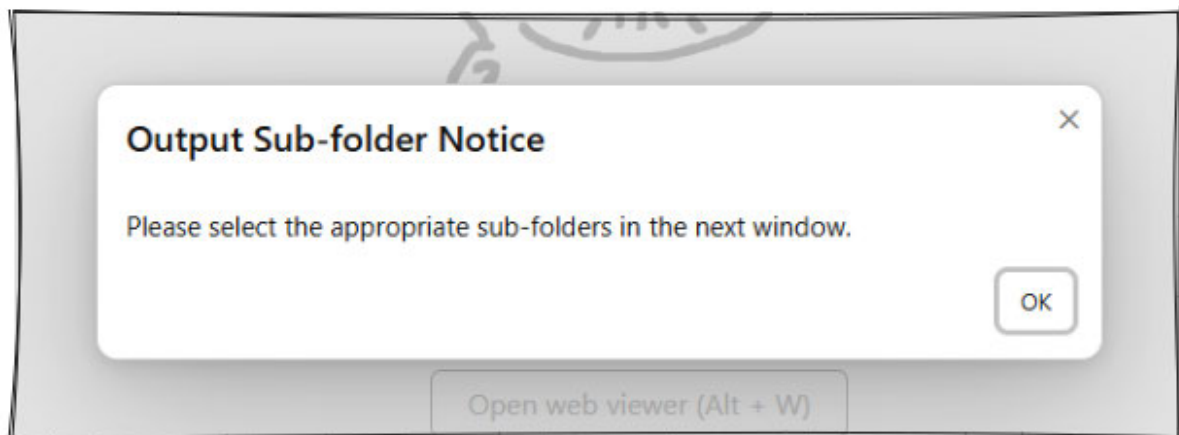


For example, an output entitled "Terrific 4 Project" would get a code of 94T41 since 9 denotes 90 Output, 4 means the word "for", T4 means "Terrific 4", and the number one means it is the first output for Terrific 4. When combined, 94T41 says "Output for Terrific 4 No. 1."

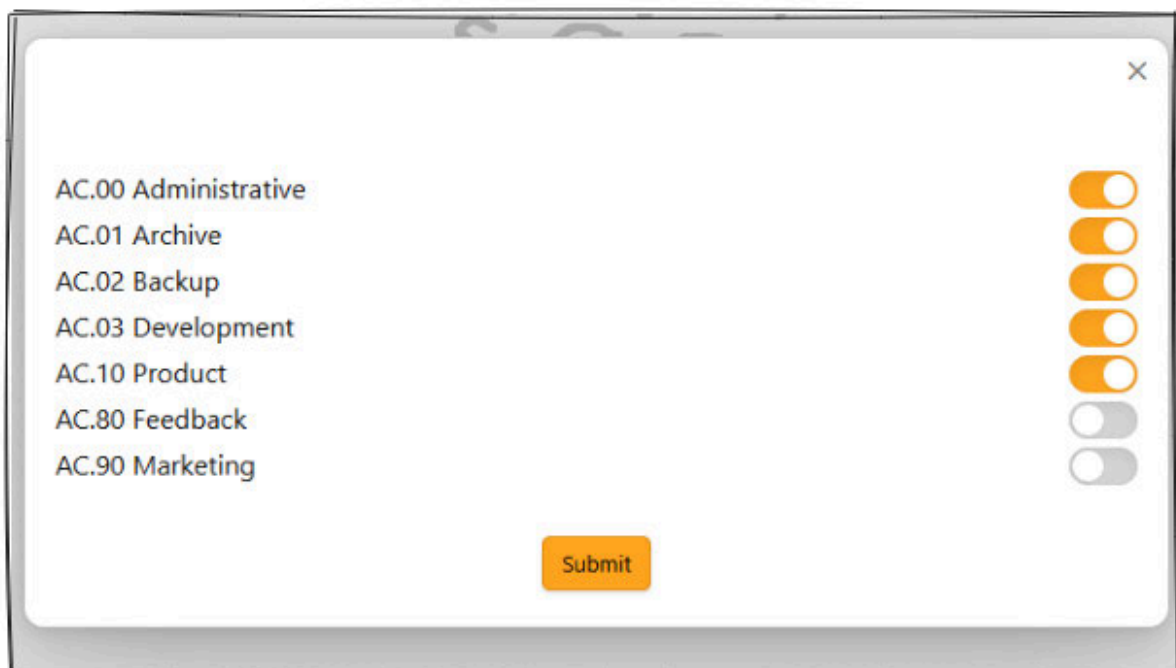
The user then writes the said title.



An output sub-folder notice will appear.



The user can pick and choose which sub-folder to create. In the screenshot below, the user disables the Feedback and Marketing sub-modules since the output would not require any feedback or marketing information to proceed.



As for the rest of the sub-folders, Administrative is a system folder (ends in 0), Archive is for old versions of the files, Backup is a second copy of the latest version, and Development is a sub-module that contains all information pertaining to the creation of the output. Lastly, Product is for outputs that have products which can be created within

Obsidian (e.g., something like book chapters, not physical objects or multimedia files like videos that need to be edited).

Once the user clicks "Submit," a notification confirms the output creation.



A tasklist is automatically made in the Administrative folder and automatically opens as well for the user to start the initial pre-development phase. A tag of #Available is also provided in the tasklist to put it in the task management bar (lowest priority).



Along with the tasklist is the automated creation of the options chosen in the sub-folder dialog box. Each folder's Area Code (AC) mirrors the assigned output code, 94T41.

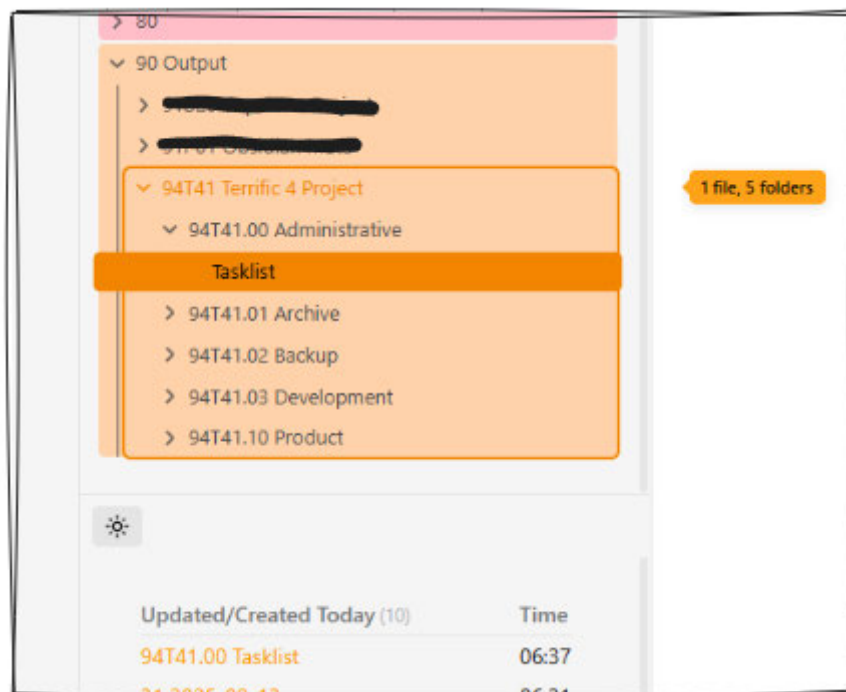
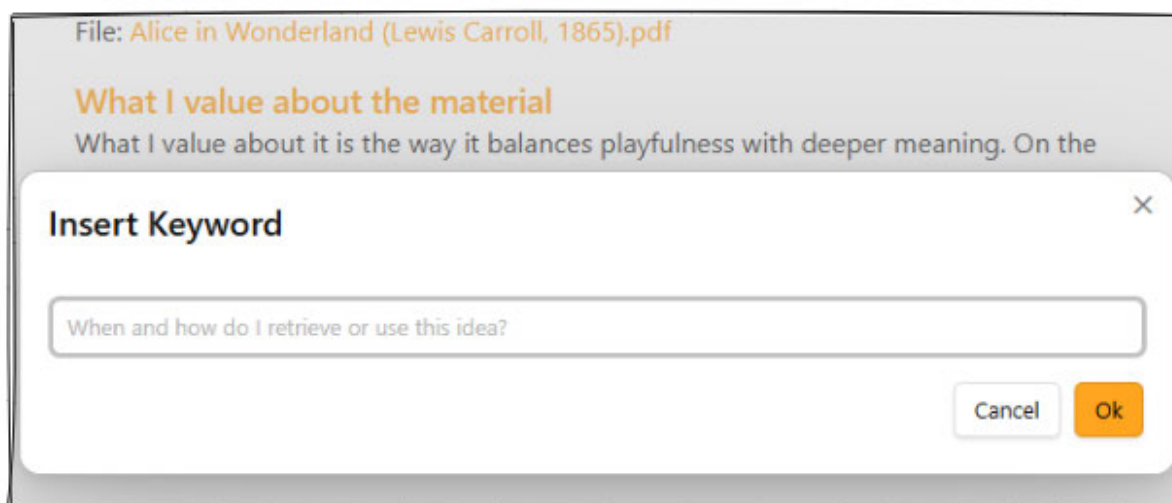


Figure 36

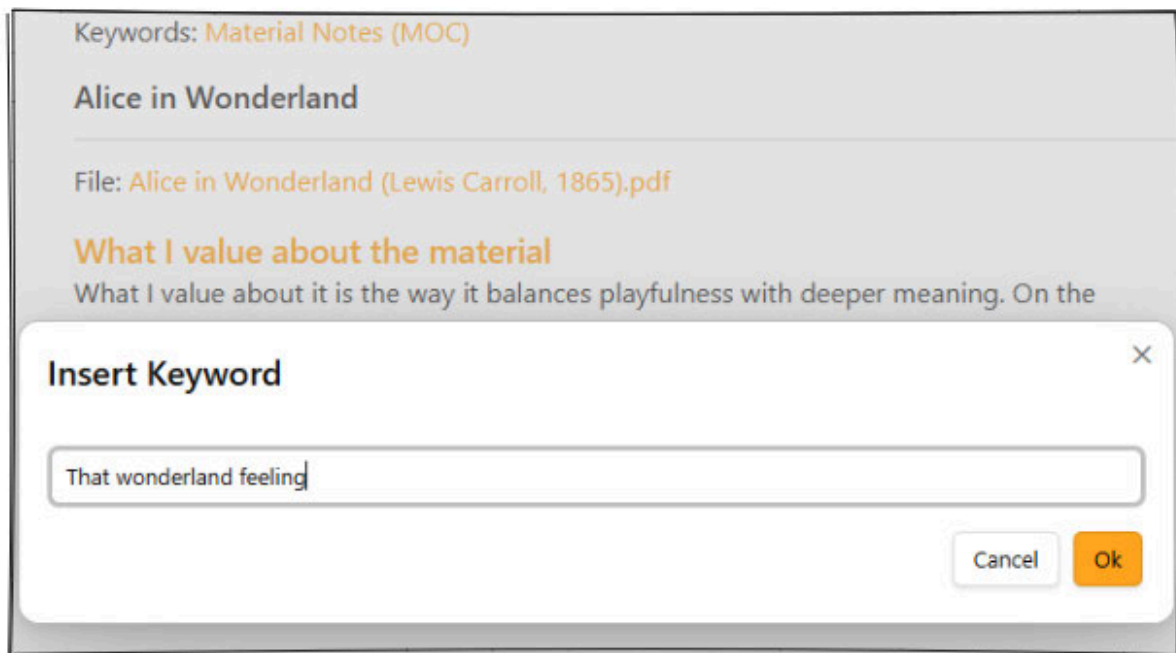
20 Keyword Module Workflow

While writing in ANY note - like in our earlier example of a material note for Alice in Wonderland - the user can press a shortcut or manually launch the keyword dialog box.

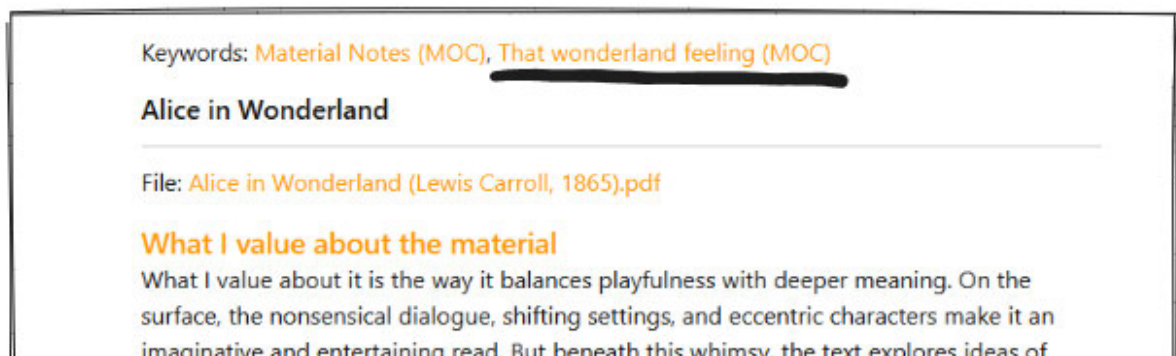
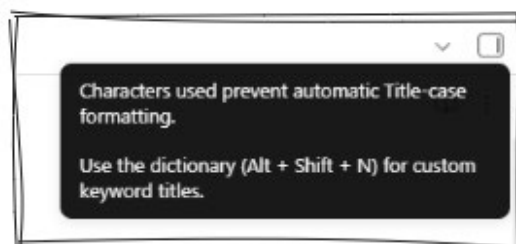


The user is prompted with a guide question, "When and how do I retrieve or use this idea?"

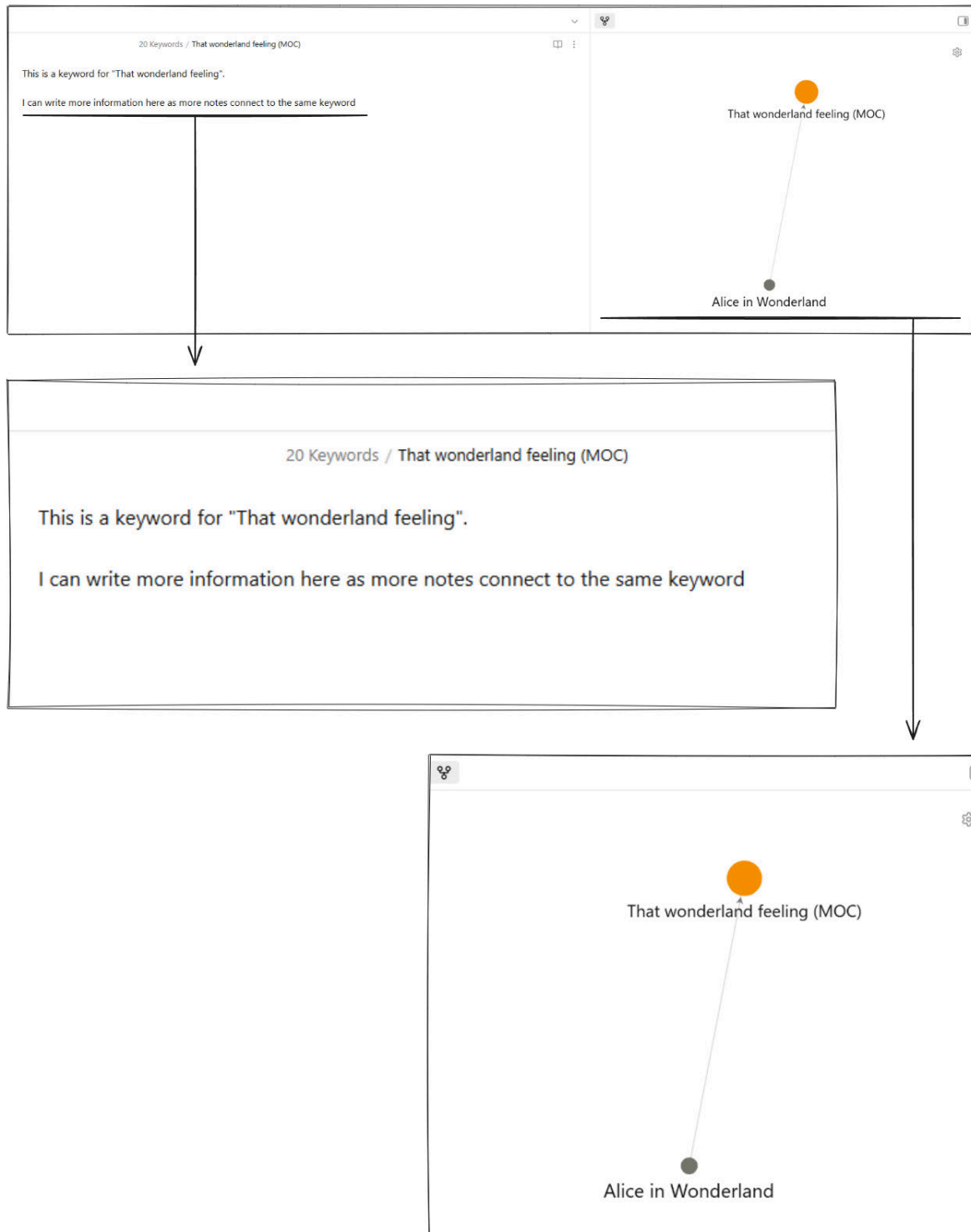
An example answer might be, "That wonderland feeling."



A notification will appear confirming its creation, with further information for debugging if needed. The resulting keyword is automatically added to the Keywords: section of the note, along with an MOC (Maps of Content) tag, signaling that it is a special note.



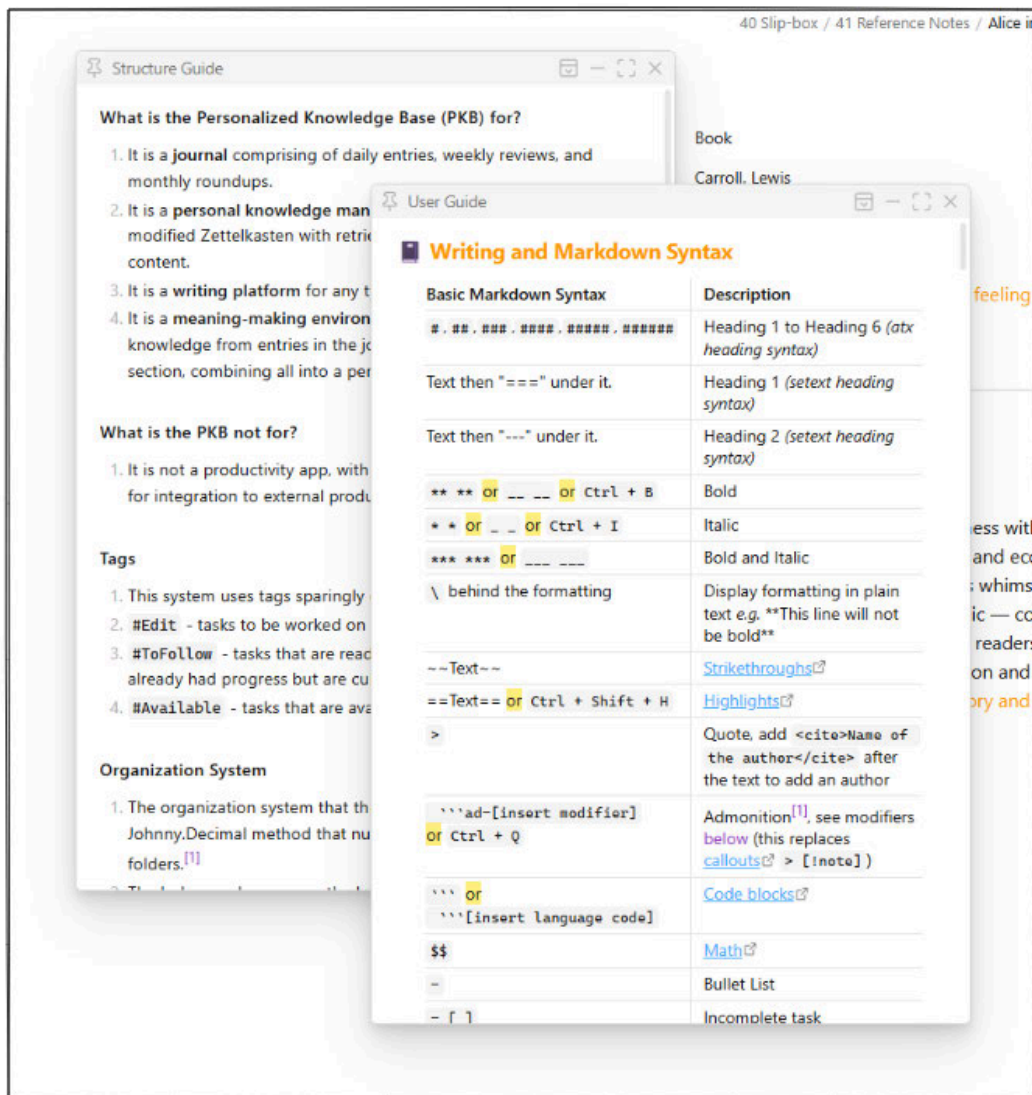
The user can then open the keyword in a new tab and proceed to leave it empty or write on it as needed. New notes that link to the keyword will appear in its local personal Knowledge graph (PKG).



The user can also connect this keyword to other keywords through backlinks or outgoing links, adapting the Maps of Content methodology discussed earlier.

These are the most notable workflows, at their most basic, in the PKB for meaning-making. It can be noticed that at their core, task automation plays a huge role in reducing the friction in accomplishing their designated functionality. This reduction-of-friction approach is widely used as the design motivation in developing the various functionalities of the PKB. Other features that also fall in this category are the available on-demand Structure Guide and User Guide to provide reference support to the user in case they forgot a specific workflow or function.

Figure 37
Structure Guide and User Guide

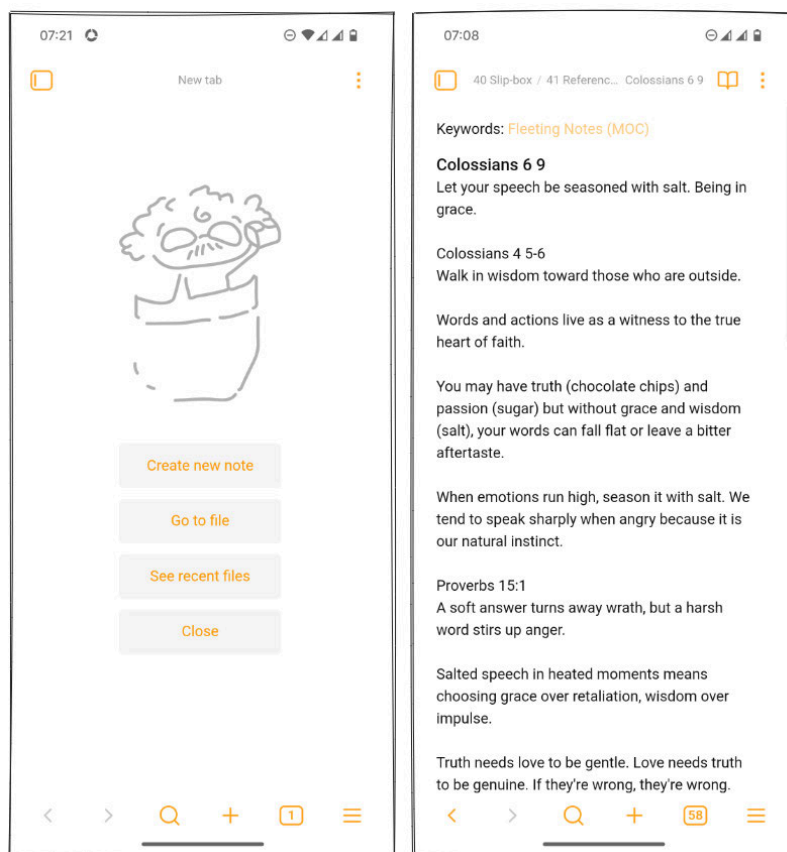


The **structure guide** provides an in-depth discussion of the Obsidian vault's structure and the purpose of each module. The **user guide** contains an easy-access reference to shortcuts, PKB syntax, and plugin tutorials.

The last notable feature of the PKB is its quick capture system. A quick capture system is essential because I have found myself in multiple instances wherein I would want to capture a source of meaning (e.g., through writing or by taking a photo), but I would be unable to do so because I can only access my PKB on my computer (this design is intentional for security and privacy). As such, an entirely separate vault for my smartphone called the "**Companion Vault**" was created for the purposes of quick capture.

Figure 38

The Companion Vault's Empty Page with Chri, and its sample Note entitled "Colossians 6 9"

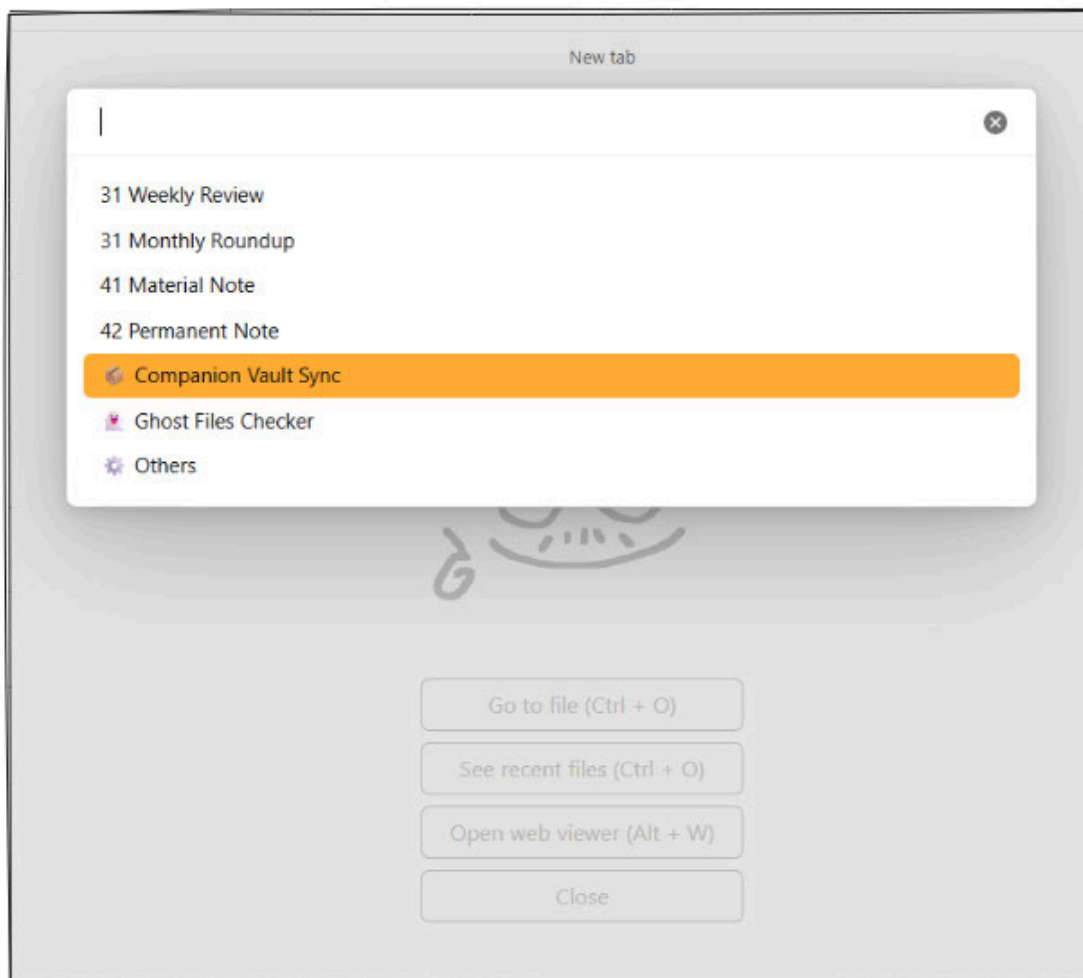


The Companion Vault has the basic functionality of the main PKB, but is limited only to the following modules: 00 System, 10 Templates, 20 Keywords, 30 Journal, and 40 Slip-box. An application written in Python, the **Companion Vault Sync**, facilitates the uploading of content from the Companion Vault to the PKB through *Google Drive* and an Android application called *Autosync for Google Drive*.

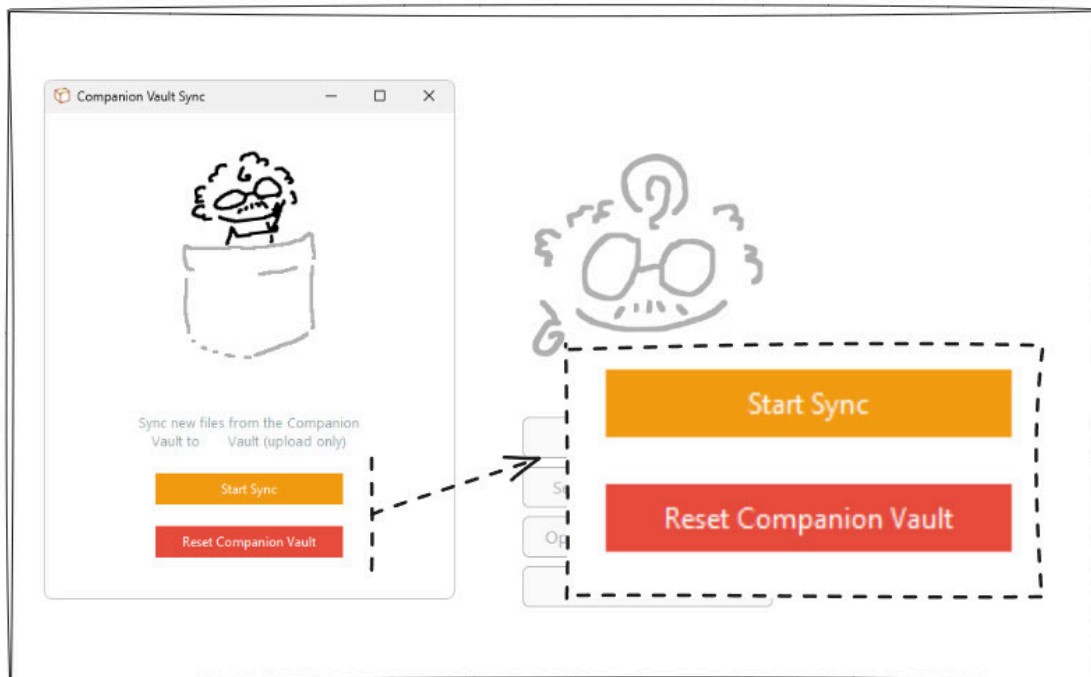
Figure 39

Companion Vault Sync Work-flow

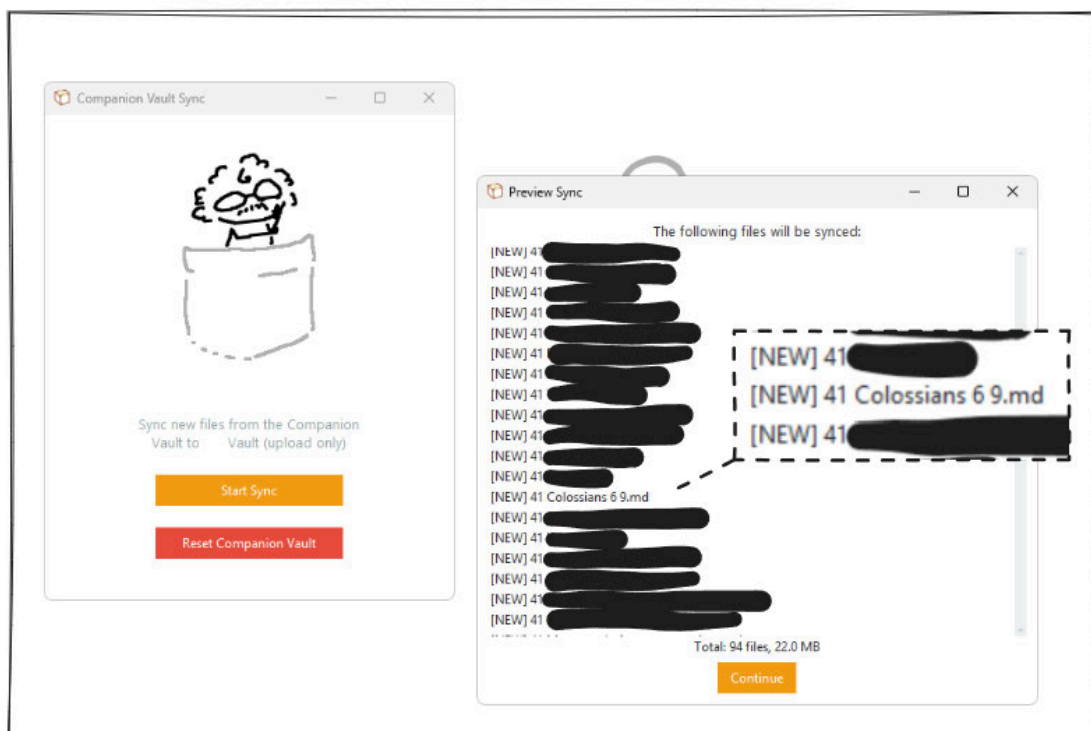
The user can press a shortcut or manually launch the quick add dialog box and pick "Companion Vault Sync."



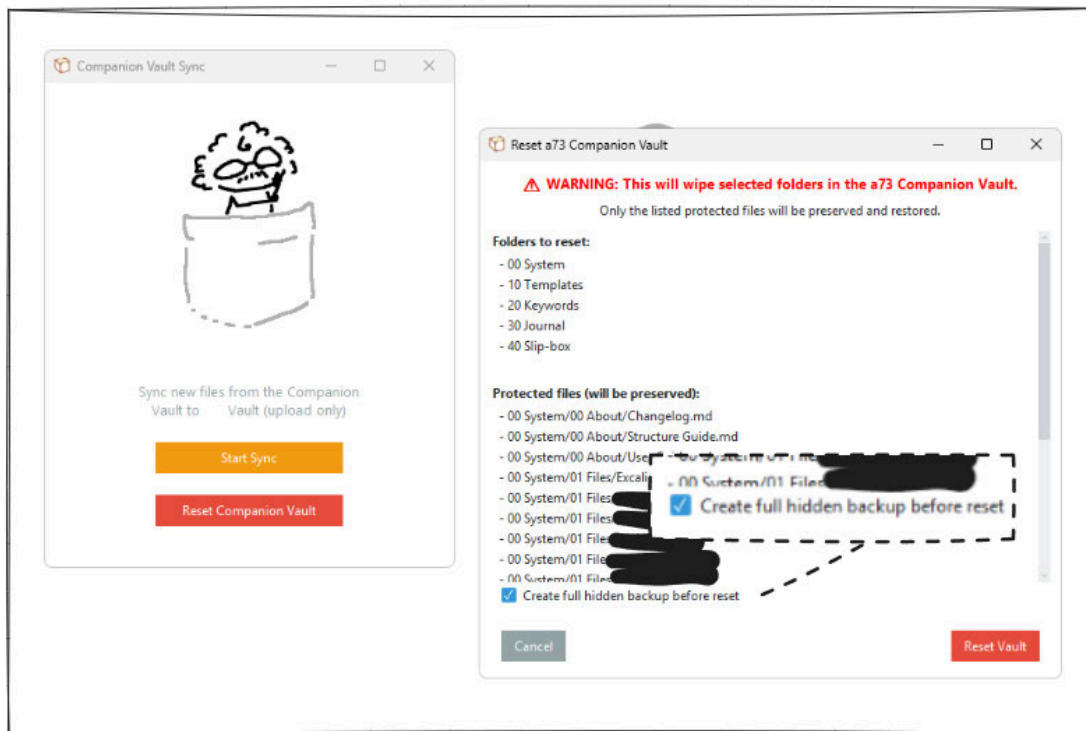
This will result in the application opening in a separate window. The user can press either "Start Sync" (orange button) or "Reset Companion Vault" (red button).



Pressing the start sync button will show the list of files ready for transfer, which includes the sample note shown above, "Colossians 6 9."



In contrast, pressing the reset companion vault button will erase everything in the companion vault.



Users can opt to create a backup of the files in case the application encounters an issue while resetting the vault.

All in all, these are the notable functionalities present in the PKB for meaning-making: a user interface for the global and local management of files, support for the majority of multimedia modalities, a journal workflow, a knowledge management workflow, an output creation workflow, a global keyword system, on-demand reference sheets for user assistance, and a quick capture system.

The PKB and My Private Dataset on Psychotic Depression

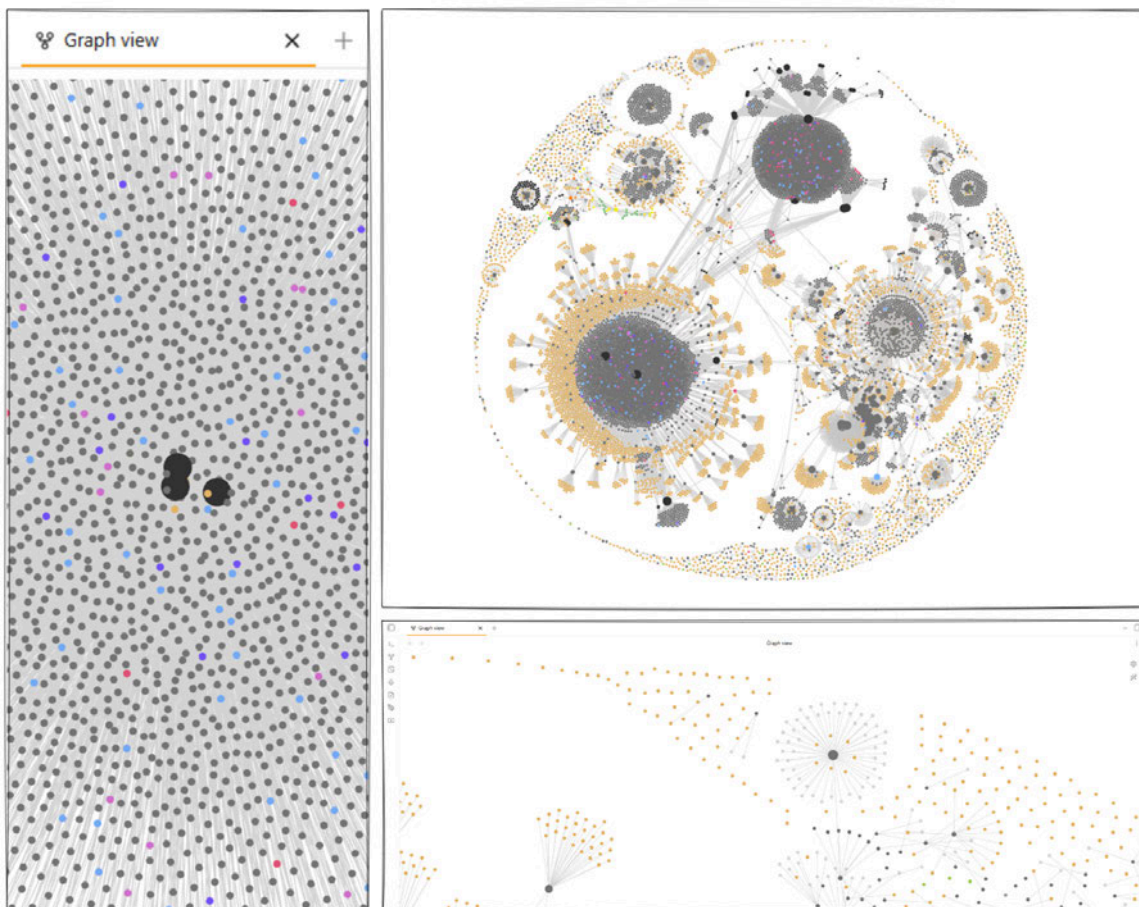
In version 2.1.0, data from previous iterations of the discussed interactive digital environment are imported into Obsidian. These are from Google Keep and Notion, excluding the traditionally written entries in my paper journals. Using the

Obsidian Importer plugin, the files were imported to 40 Slip-box — under the sub-folders 46 Google Keep Import and 47 Notion Import — since they function similarly to fleeting notes in 41 Reference Notes.

The import had a resounding **99% transfer rate** that resulted in the successful transfer of 5,556 notes and 1,976 files (*i.e.*, non-text, like images) from Google Keep and 2,318 notes and 2,421 files from Notion — bringing the total to 12,271 files. The files that failed to transfer were those with excessively long file names. These files can be manually edited as a fix. The figure below presents a generated personal knowledge graph of the total number of these files, including ones already made within the PKB.

Figure 40

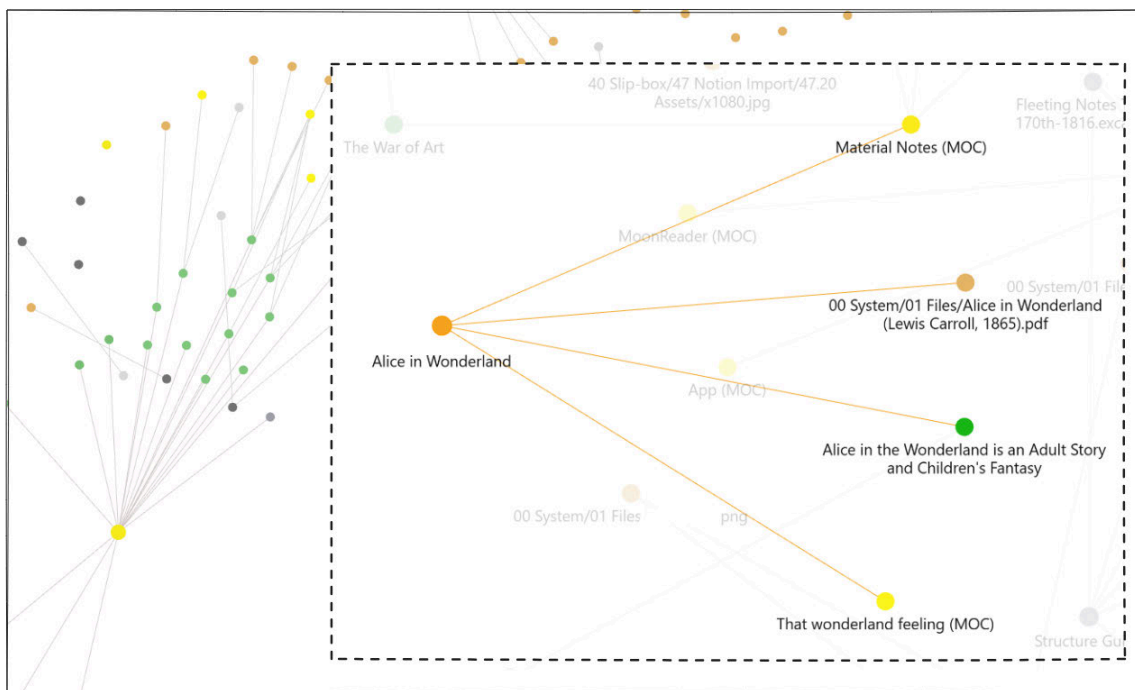
The PKG for meaning-making, containing more than 12,000 nodes



The PKG rewards further inspection. It is separated into distinct clusters, with the majority yet to be explored. The gray nodes are unprocessed nodes, and they comprise large clusters of unmapped areas. The colored nodes represent those already assigned to a module, with their specific colors indicating which one. Most of the colored nodes were created directly in the PKB, while others come from processed imports from Google Keep or Notion.

Figure 41

Native Nodes within the PKG

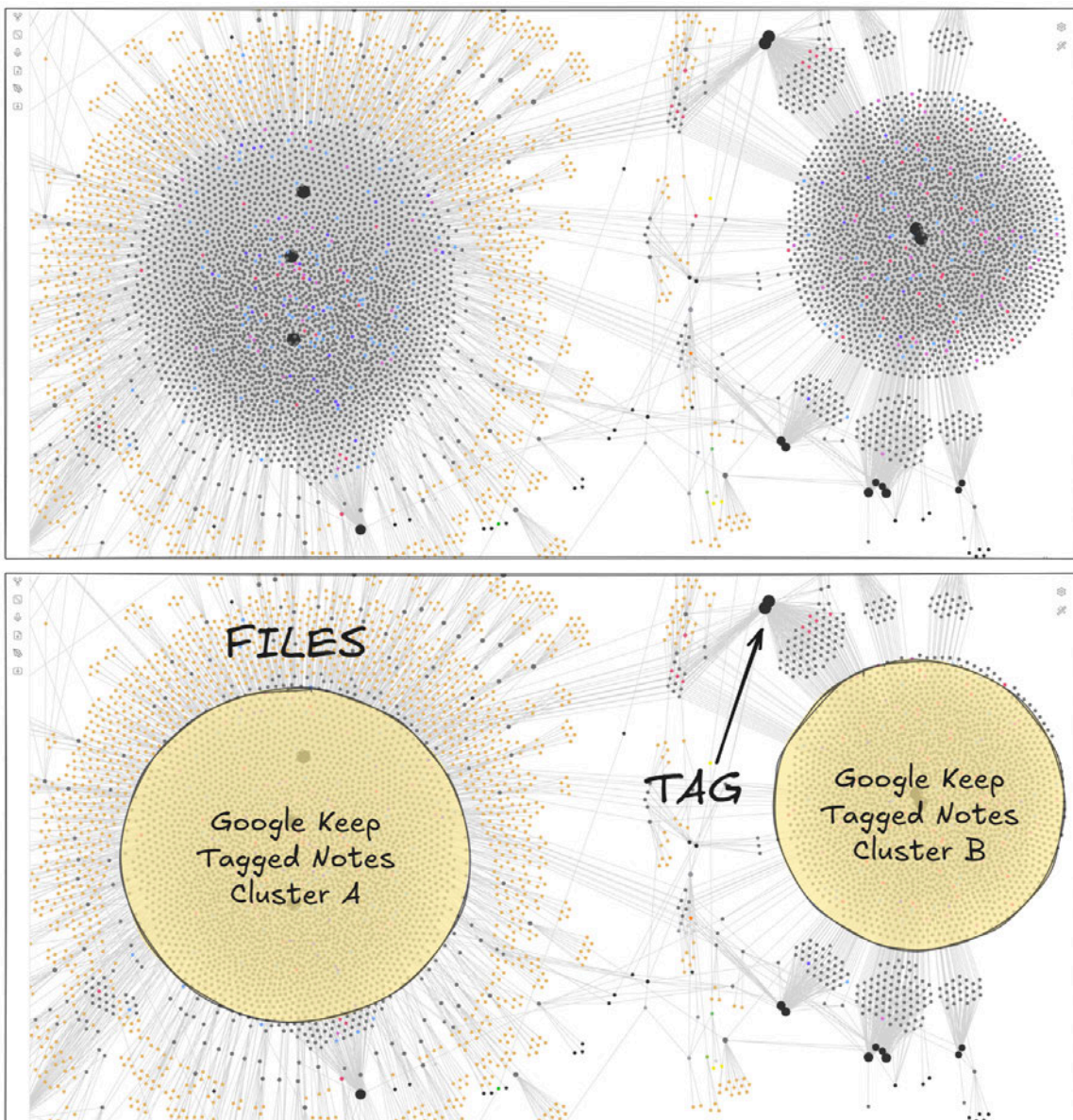


The colored nodes are shown in the figure above, with a zoom-in on the selected material note, Alice in Wonderland, and its connections: two keywords (Material Notes and That wonderland feeling) that are colored bright yellow, one PDF file colored golden yellow, and one permanent note colored bright green. Selected nodes are highlighted with the Obsidian vault's accent color, which is bright orange.

As for the gray nodes, they are concentrated in massive clusters, both from Google Keep and Notion. It can be noticed that there are significantly larger nodes relative to the size of an average node. This is because nodes with more backlinks grow larger in size, and the ones that are colored black signify the tags I used back in Google Keep. These tags can be converted to a keyword node (bright yellow) once processed.

Figure 41

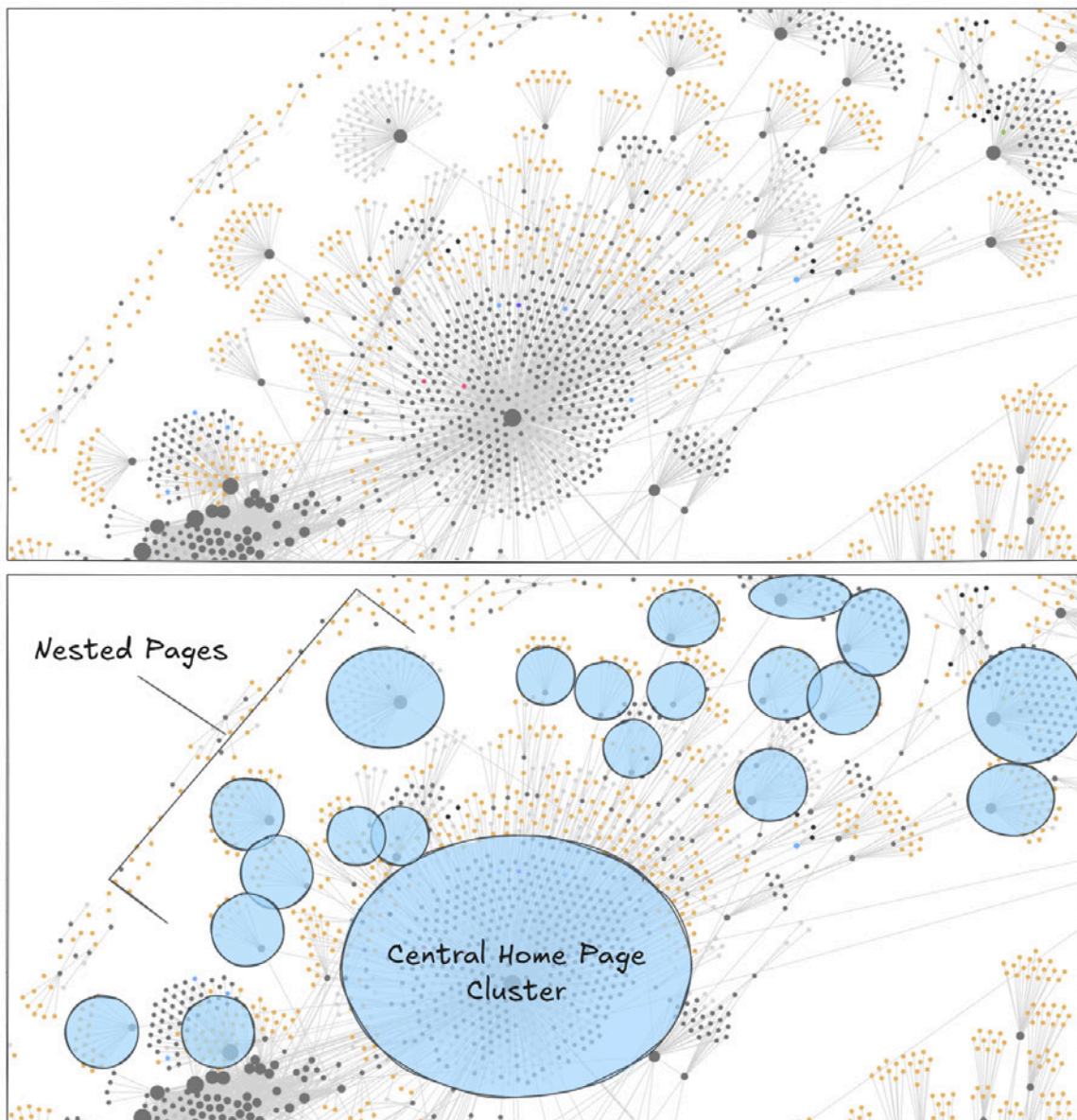
Areas in the PKG showing Google Keep's centralized tag clusters



The structure is different for Notion, where instead of tags, Notion uses pages. There is the central home page (a large gray node at the core of the central cluster) from which every nested page branches off.

Figure 43

Areas in the PKG showing Notion's nested hierarchies



Once processed, these unexplored areas of the PKG are expected to adopt a decentralized structure of smaller clusters composed of colored nodes and their

relational links. These smaller clusters stand in contrast to Google Keep's massive cluster structures and Notion's branching structure. In its current state, the PKG is an unrefined map of my meaning-making, like a raw digital mindscape from seven years of lived experience shaped by intuition, meaning, and psychotic depression.

The PKB is the environment that made the creation of this knowledge graph possible and its navigation feasible. Thus, the latest iteration of the PKB (version 2.2.0) — through its notable features and the resulting PKG — successfully fulfills all the primary functions outlined in the project scope and objectives: a streamlined method to capture and explore situational meanings, and facilitate assisted meaning-making for the formation of new meanings and production of a PKG.

It is to be noted that although task automation plays a significant role in the design of the PKB, its application is limited only to auxiliary functions that do not require cognitive engagement. This means that the PKB does not have any features that automatically generate content on behalf of the user; rather, it reduces the friction in using the digital application, effectively streamlining the process of manual meaning-making. This design choice is intentional, as the user is expected to consciously establish the relationships between concepts and consciously define the significance of each node in the system. While this approach can be time-intensive, the deliberate effort involved is strongly suggested to be integral to the process of meaning-making. Taking this into account, the processing of the produced PKG, as well as the creation of all note content, remains entirely manual.

Challenges and Limitations Encountered

With meaning-making being such a wide activity that is applicable to countless concepts, the project adopted an open-ended approach to development,

given that updates remained within the modular Johnny.Decimal structure of the PKB. Although effective in terms of experimentation and prototyping for diverse use cases, this approach proved to be a double-edged sword. There were times when I invested considerable effort in scaling a feature, only to realize upon implementation that it only added system clutter instead of addressing a genuine need. Developing the PKB, therefore, requires a careful balance between ease-of-use and practical utility to mitigate the risk of overengineering.

One such example of this is during the creation of the script for automating the adding of keywords in notes, *i.e.*, `addNew20Keyword.js` (see Appendix C). My initial approach relied on an increasingly complex set of regex rules to enforce proper casing for the many ways keywords could be added. I made sure to account for symbols beyond the alphanumeric range, along with the variations in word structure that they introduced. However, the solution became too convoluted and is too complex a functionality that only addressed a handful of rare edge cases unlikely to occur outside of deliberate limit testing. As such, upon recognizing my process as overengineering, I shifted my attention to a much more sustainable solution, a separate JSON file that acts as a dictionary where a user can define custom title cases for specific keywords.

As for Obsidian itself, developing and using the PKB involves a significant learning curve that is not as intuitive as Google Keep and can be argued to be more complex than Notion because each module presents a different functionality. However, this complexity is inherent to the task of building a PKB, given that it supports a far more comprehensive set of activities (*i.e.*, meaning-making) in comparison to the previous iterations of the interactive digital environment in Google Keep and Notion.

There are also a number of limitations present in the current version of the PKB. Firstly, there is a constraint in exporting or sharing the produced PKG. Individuals who do not have access to the entirety of the vault cannot access the PKG in any way. As such, the current means of sharing requires the user to provide supervised access to their vault; however, it can be suggested that this is a security risk. Another limitation is in the application performance when viewing the global PKG. Although individual notes and local PKGs (found in the right sidebar) do not suffer from performance issues — which is a definite improvement over the previous iterations in Google Keep and Notion — the global PKG containing more than 12,000 nodes exhibits reduced responsiveness. Lastly, it can be suggested that the names of the modules could be further improved for the purposes of semantic consistency and conceptual alignment. For example, the module 20 Keywords can be called differently so that it aligns more with 00 System and 10 Templates. These limitations are referenced in the recommendations section of this report.

V. Summary, Conclusion, and Recommendations

Summary and Conclusion

This project outlines the development of a multimedia prototype in the form of a personal knowledge base (PKB) in Obsidian for supporting meaning-making, in particular, within psychotic depression, where it is severely compromised. It uses a proposed Multimedia Meaning-making Model for Psychotic Depression (M4PD) as its theoretical framework, and is achieved through an iterative design approach that utilizes CSS, JavaScript, Python, third-party Obsidian plugins — along with techniques adapted from personal knowledge management (PKM), and insights formed from my own experience of psychotic depression.

The resulting personal knowledge base has multiple notable features. It is a secure and private application with everything running locally on the user's machine. It uses a robust file type, the Markdown text file, for its notes. It has modular self-contained functionalities with their own workflows independent of each other; these include journaling, knowledge management, and output creation. It has a global keyword system that prioritizes retrieval instead of categorization, and can be referenced anywhere within the application.

To support the wide realm of meaning-making, the personal knowledge base can contain and display the majority of available modalities in multimedia. It also has an external quick capture system that utilizes a user's mobile phone in a secure manner, to be used in an event where one needs to capture a source of meaning away from the main PKB vault. The PKB's user interface also provides streamlined access to global and local management of files, along with on-demand reference sheets to provide user assistance when needed. It even has its own personalized

cartoon avatar and dedicated vault accent color embedded in many of its features for the purposes of supporting a more personal approach to meaning-making.

Most importantly, the personal knowledge base is capable of generating both local and global personal knowledge graphs (PKG), which map the relationships between files through a topological structure of nodes and links. Imported files from Google Keep and Notion — containing entries on my lived experience with psychotic depression and other personal information — generated a global PKG mapping 12,271 nodes (7,874 notes and 4,397 non-text files) created across seven years, from 2018 to 2025.

In conclusion, the personal knowledge base supports meaning-making through its provided features. It captures and explores meanings appraised from experience (situational meaning) by capturing their sources in the form of a multimedia modality, then displays them in a free-flowing space (through PKGs) without using nested hierarchies, enabling non-linear exploration. From this process, it facilitates the formation of new meanings (assisted meaning-making) through multiple PKB workflows, which can then be integrated into the user's beliefs, goals, and subjective sense of meaningfulness (global meaning). Aside from the PKB workflows, this entire process is made more efficient through user-friendly user interfaces and auxiliary task automation, along with a global keyword system.

The ability to capture and explore situational meanings and facilitate assisted meaning-making is particularly significant in the context of psychotic depression, where psychosis is rooted in an excess of situational meanings, depression disrupts global meaning, and both compromise meaning-making.

Recommendations

In light of the project's conclusion, there are recommendations to consider.

First, a recommendation to develop a refined map of my meaning-making.

I plan to conduct a more deliberate exploration of the resulting global PKG, since its present mapping consists of large clusters that are held together by overly general hashtags (from Google Keep) or node structures that are too reliant on a single central node (from Notion). It is recommended that a robust strategy be determined not for the purposes of organizing, but for building better relational links between nodes in the PKG. It can be suggested that this undertaking could yield deeper insights about myself while also providing a potential framework for future research on how large-scale PKGs constructed from the data of a single individual can be purposefully explored.

Second, a recommendation from a Personal Knowledge Base towards a Personal Meaning Base. Throughout the writing of this report, I have envisioned further developments that can be incorporated into the future iterations of the developed interactive digital environment — unique enough that it warrants its distinct concept that I will call a Personal Meaning Base or PMB. The PMB would integrate several new recommended features, such as a more ingrained personalized avatar within the system, and improved accessibility, performance, and system behavior through dynamic CSS snippets, program extensions, and the use of new Obsidian features such as *Obsidian Bases* (from Obsidian version 1.9.10).

It should also establish more consistent semantic structures across modules and their functionalities, provide a secure export feature for PKGs, and adopt immersive technologies like extended reality (especially virtual reality) to further support meaning-making.

It is recommended as well that the code implemented in the PKB be reviewed by a qualified expert, as significant portions of it were developed with assistance from ChatGPT. While careful measures were taken to ensure accuracy and reliability, including a line-by-line examination of the code, additional review would help safeguard against potential oversights.

This hypothetical upgrade to the current PKB should be able to quantify and manipulate meaning in a more deeply embedded and experiential manner, while also functioning either as a standalone application or an easy-to-install Obsidian modification that is accessible to the public even without technical expertise.

Third, a recommendation for future research, the PKB may be compared with existing digital interventions for psychosis not discussed in the literature review, such as *SloMo* — which supports individuals in managing paranoia through guided visual therapy sessions (King’s College London, n.d.) — and *AVATAR therapy*, which enables interaction with digital representations of auditory hallucinations (*AVATAR2 Therapy Trial*, n.d.). These interventions were not included in the current review due to an oversight in the sources consulted during the writing of Chapters 2 to 3. They are mentioned here only for reference, as they adopt a different approach to addressing psychosis compared with the produced PKB, and do not affect the results of this project.

Clinical trials of the PKB — once refined from a multimedia prototype into a user-friendly application accessible to the general public — should also be conducted to assess its therapeutic potential. In addition, the proposed Multimedia Meaning-making Model for Psychotic Depression (M4PD) requires further investigation, with particular attention to its critical evaluation and refinement.

Finally, since meaning-making is a fundamental human activity, future research should also explore how the future iterations of the PKB can be applied to baseline meaning-making as well as to other mental health conditions, such as the other subtypes of major depressive disorder, bipolar disorder, post-traumatic stress disorder, and the schizophrenia spectrum. Individuals who have undergone traumatic events or are diagnosed with serious illnesses may also benefit from future research into the application of the PKB in their daily lives.

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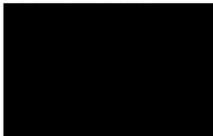
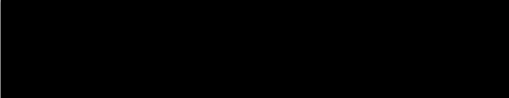





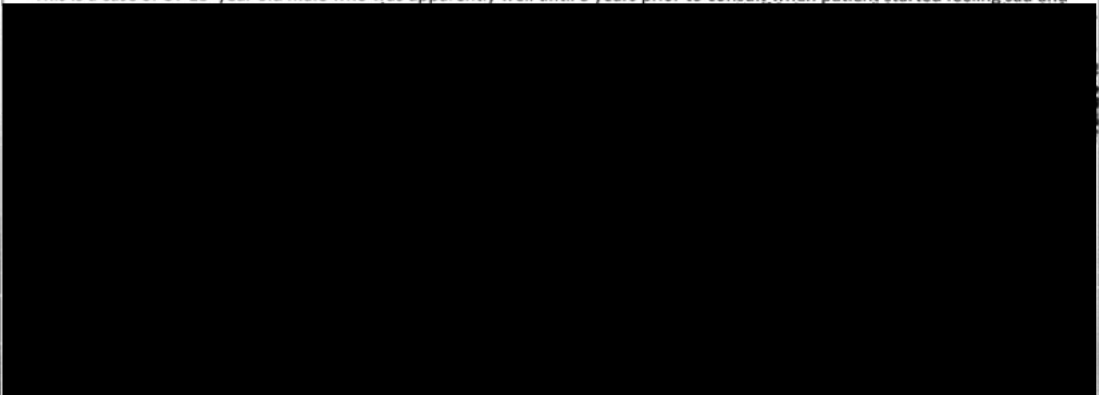
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Appendices

APPENDIX A

Redacted Medical Abstract

			
MEDICAL ABSTRACT / DISCHARGE SUMMARY FORM			
NAME: VELO CHRISTIAN PAUL		DATE ADMITTED:  2019	
PATIENT NO: 		AGE: 18	
BIRTH DATE:  2000		SEX: MALE	
ROOM NO: 		DATE DISCHARGED:  2019	
ADMITTING DIAGNOSIS: MAJOR DEPRESSIVE DISORDER WITH PSYCHOTIC FEATURE			
DISCHARGE DIANOSIS: MAJOR DEPRESSIVE DISORDER WITH PSYCHOTIC FEATURE			
CLINICAL COURSE:			
This is a case of CV 18 year old male who was apparently well until 8 years prior to consult when patient started feeling sad and			
			

APPENDIX B

Copyright Transfer Agreement for Chri

COPYRIGHT TRANSFER AGREEMENT

I, **Anna Porsche S. Gutierrez**, hereby assign and transfer to **Christian Paul R. Velo** all rights, title, and interest, including copyright, in and to all illustrations of the character “**Chri**” that I have created prior to the date of this agreement, including but not limited to sketches, drafts, and final illustrations.

This transfer includes, without limitation, the exclusive rights of reproduction, distribution, public display, adaptation, modification, and the creation of derivative works, in any medium, format, or platform, whether now known or later developed, worldwide and in perpetuity.

Consideration

This transfer is made voluntarily and without expectation of monetary compensation. The sole consideration for this transfer is acknowledgment of authorship where appropriate, unless otherwise agreed in writing by both parties.

Moral Rights

To the fullest extent permitted by law, I waive any and all moral rights I may have in connection with the transferred works.

I acknowledge that this transfer means I will no longer retain copyright ownership or control over the use of the aforementioned illustrations. All rights are fully vested in Christian Paul R. Velo from the date of signing.

APPENDIX C

JavaScript Plugin/Scripts

Obsidian Plugin: Rename Files Label

main.js

The preliminary structure of this code was prompted in ChatGPT (OpenAI, 2025h). Refined and extended by the author, Christian Paul R. Velo, with further assistance from ChatGPT.

```
JavaScript
const { Plugin } = require("obsidian");

class RenameFilesLabelPlugin extends Plugin {
  onload() {
    console.log("RenameFilesLabelPlugin loaded");

    // Run renameLabel() after Obsidian finishes rendering the UI
    this.app.workspace.onLayoutReady(() => {
      this.renameLabel();
      this.observeSidebar();
    });
  }

  onunload() {
    console.log("RenameFilesLabelPlugin unloaded");

    // Disconnect the MutationObserver to avoid memory leaks
    if (this.observer) this.observer.disconnect();
  }

  /*
  Renames the "Files" tab in the sidebar to "Index".
  This updates both the aria-label (for accessibility) and the visible
  text.
  */
  renameLabel() {
    const filesTab =
document.querySelector('.workspace-tab-header[data-type="file-explorer"]');

    if (filesTab) {
      // Change the aria-label for accessibility
      filesTab.setAttribute("aria-label", "Index");
    }
  }
}
```

```

        // Change the displayed text inside the tab
        const titleElement =
filesTab.querySelector('.workspace-tab-header-inner-title');
        if (titleElement) {
            titleElement.textContent = "Index";
        }
    }
}

/*
Observes the sidebar for changes and re-applies the label rename.
This ensures the label stays renamed even if the UI updates dynamically.
*/
observeSidebar() {
    const sidebar = document.querySelector('.workspace-ribbon');
    if (!sidebar) return;

    // Create a MutationObserver to detect UI changes
    this.observer = new MutationObserver(() => this.renameLabel());

    // Observe child elements and nested changes
    this.observer.observe(sidebar, { childList: true, subtree: true });
}
}

module.exports = RenameFilesLabelPlugin;

```

manifest.json

```

JSON
{
  "id": "rename-files-label",
  "name": "Rename Files Label",
  "version": "1.0.0",
  "minAppVersion": "0.15.0",
  "description": "Renames the 'Files' label in the sidebar to 'Index'",
  "author": "Christian Paul Velo",
  "authorUrl": "",
  "isDesktopOnly": false
}

```

QuickAdd Scripts

openDailyNoteInHover.js

The preliminary structure of this code was prompted in ChatGPT (OpenAI, 2025g). Refined and extended by the author, Christian Paul R. Velo, with further assistance from ChatGPT.

```
JavaScript
/*
when updating the following shortcuts:
"Open today's daily note" and "Open new
hover editor" in Obsidian, just update
the constant key value and its corresponding
physical key code as you can see below.

It's also important to properly assign
boolean values to the modifier i.e.,
Alt, Shift, and Ctrl.
*/

const openHoverEditorKey = "h"; // The key value (without modifier)
const openHoverEditorCode = "KeyH"; // The physical key code
const openTodayDailyNoteKey = "d";
const openTodayDailyNoteCode = "KeyD";

module.exports = {
  /*
  QuickAdd plugin expects the exported
  object to have two properties, else it
  will return an error message. These are
  "entry" and "settings".
  */
  entry: async (QuickAdd, settings) => {
    // Simulate key press
    function triggerHotkey(hotkey) {
      const evt = new KeyboardEvent("keydown", {
        key: hotkey.key,
        code: hotkey.code,
        altKey: hotkey.altKey || false,
        shiftKey: hotkey.shiftKey || false,
        ctrlKey: hotkey.ctrlKey || false,
      });
      document.dispatchEvent(evt);
    }

    // Open Hover Editor using the defined constants (Alt + H)
```

```

        triggerHotkey({ key: openHoverEditorKey, code: openHoverEditorCode,
altKey: true });

        // Delay to ensure hover editor opens
        setTimeout(() => {
            // Open Today's Daily Note (Alt + D)
            triggerHotkey({ key: openTodayDailyNoteKey, code:
openTodayDailyNoteCode, altKey: true });
            }, 300);

        console.log("PKB openDailyNoteInHover Script: Hover editor and daily
note triggered.");
    },

    settings: {
        name: "This script has no available settings.",
    },
};

```

addNew90Entry.js

The preliminary structure of this code was prompted in ChatGPT (OpenAI, 2025e). Refined and extended by the author, Christian Paul R. Velo, with further assistance from ChatGPT.

```

JavaScript
module.exports = async (params) => {
    const { app, quickAddApi } = params;

    const sourceFolder = "10 Templates/19 Output/19.02 Folder Structure";
    const outputBase = "90 Output";

    // Prompt for output code
    const outputCode = await quickAddApi.inputPrompt("Enter Output Code
(e.g., 90A01)");
    if (!outputCode) {
        new Notice("Cancelled: No output code given.");
        return;
    }

    // Validate outputCode format: 9YXX where X = digit, Y = letter
    if (!/^9\d[A-Z]\d{2}$/.test(outputCode)) {
        new Notice("Error: Invalid output code format.");
    }
}

```

```

    return;
}

// Prompt for output title
const outputTitle = await quickAddApi.inputPrompt("Enter Output Title");
if (!outputTitle) {
    new Notice("    Cancelled: No output title given.");
    return;
}

// Show loading notice while checking existing folders
const loadingNotice = new Notice("    Checking existing outputs...", 0);

// Get existing folders in outputBase
const existingFolders = await app.vault.adapter.list(outputBase);

loadingNotice.hide();

// Check if outputCode or outputTitle already exists in folder names
const existingFolderNames = existingFolders.folders.map(f =>
f.split("/").pop());

if (existingFolderNames.some(name => name.startsWith(outputCode))) {
    new Notice(`    Error: Output code "${outputCode}" already exists in
${outputBase}.`);
    return;
}

if (existingFolderNames.some(name =>
name.toLowerCase().includes(outputTitle.toLowerCase()))) {
    new Notice(`    Error: Output title "${outputTitle}" already exists
in ${outputBase}.`);
    return;
}

const targetBase = `${outputBase}/${outputCode} ${outputTitle}`;
await app.vault.createFolder(targetBase);

// List subfolders in source folder
const folderEntries = await app.vault.adapter.list(sourceFolder);
const folderNames = folderEntries.folders.map(f => f.split("/").pop());

await quickAddApi.infoDialog(
    "Output Sub-folder Notice",
    "Please select the appropriate sub-folders in the next window."
);

const selectedFolders = await quickAddApi.checkboxPrompt(

```

```

    folderNames,
    folderNames // All selected by default
  );

  if (!selectedFolders || selectedFolders.length === 0) {
    new Notice("  Cancelled: No folders selected.");
    return;
  }

  for (const folderName of selectedFolders) {
    const renamedFolder = folderName.replace("AC", outputCode);
    const newPath = `${targetBase}/${renamedFolder}`;
    await app.vault.createFolder(newPath);

    // Create "Tasklist" note if the folder is AC.00 Administrative
    if (folderName === "AC.00 Administrative") {
      const tasklistPath = `${newPath}/Tasklist.md`;
      const exists = await app.vault.adapter.exists(tasklistPath);
      if (!exists) {
        const content = `##### ${outputTitle} Tasklist
#Available

- [ ] -
`;
        await app.vault.create(tasklistPath, content);
      }

      // Open the created note in a new tab
      const file = app.vault.getAbstractFileByPath(tasklistPath);
      if (file) {
        app.workspace.openLinkText(tasklistPath, '', true);
      }
    }
  }

  new Notice(`  Created output folders under: ${targetBase}`);
};

```

addNew20Keyword.js

The preliminary structure of this code was prompted in ChatGPT (OpenAI, 2025a). Refined and extended by the author, Christian Paul R. Velo, with further assistance from ChatGPT.

JavaScript

```
module.exports = async (params) => {
  const { app, quickAddApi } = params;

  // Step 1: Load keyword dictionary from file
  const dictPath = "00 System/03 Scripts/keyword-dictionary.json";
  let keywordDictionary = {};

  try {
    const dictFile = app.vault.getAbstractFileByPath(dictPath);
    if (dictFile) {
      const dictContent = await app.vault.read(dictFile);
      keywordDictionary = JSON.parse(dictContent);
    }
  } catch (e) {
    new Notice("Could not load keyword dictionary");
    console.error("Dictionary load error:", e);
  }

  // Step 2: Prompt for keyword title
  let input = await quickAddApi.inputPrompt(
    "Insert Keyword",
    "When and how do I retrieve or use this idea?"
  );
  if (!input) return;

  // Step 3: Clean & validate keyword input
  // Trim whitespace
  input = input.trim();

  // Collapse multiple spaces
  input = input.replace(/\s+/g, ' ');

  // Reject empty or space-only input
  if (!input || input.length === 0) {
    new Notice("Keyword title cannot be empty.");
    return;
  }

  // Normalize smart quotes
  input = input.replace(/'/g, "");

  /*
  Reject if input contains forbidden characters.

  Forbidden Characters:
  - Problematic punctuation: * " \ / < > : | ? # % ^ { } [ ] ` ~ $
  - Emojis and symbol-like characters in these Unicode ranges:
    - U+1F000-U+1FFFF: Emojis, symbols, and pictographs
  */
}
```

- U+2000-U+206F: Invisible/formatting characters (e.g., ZWJ, ZWNJ)
- U+2300-U+23FF: Miscellaneous technical symbols
- U+2600-U+27BF: Dingbats

Allowed Characters (implied):

- A-Z a-z 0-9
- Whitespace
- Apostrophe (')
- Dot (.)
- Parentheses ()
- Underscore (_)
- Plus (+), Equal (=), Dash (-)
- Exclamation (!), At (@), Ampersand (&)
- Comma (,), Semicolon (;)

```

*/
const invalidCharPattern =
/[*\ \\/<>:|?#%^{\[\]\`~$\u{1F000}-\u{1FFFF}\u{2000}-\u{206F}\u{2300}-\u{23FF}\u{2600}-\u{27BF}]/u;

    if (invalidCharPattern.test(input)) {
        new Notice("Keyword title contains invalid characters.\nPlease
avoid: * \" \\ / < > : | ? # % ^ { } [ ] ` ~ $ or emoji/special symbols.");
        return;
    }

    // Reject if it starts with a dot (.)
    if (input.trim().startsWith(".")) {
        new Notice("Keyword title cannot start with a dot.");
        return;
    }

    // Check for unbalanced parentheses
    const openParens = (input.match(/\(/g) || []).length;
    const closeParens = (input.match(/\)/g) || []).length;
    if (openParens !== closeParens) {
        new Notice("Parentheses must be balanced. You can't use '('
without ')'.");
        return;
    }

    /*
    Apply Title-case formatting under strict conditions:
    - The input must be composed of only letters and spaces plus dots,
    apostrophes, ampersands, or dashes.
    - The input must be either fully lowercase or fully uppercase.
    - Mixed-case input or input with allowed non-word characters like
    `@`, `!`, `_`, and many more are skipped entirely.

```

The following non-word characters: dots, apostrophes, ampersands, and dashes act as word boundaries and signals a new word. Thus, the function applies Title-case formatting for every word before or after the said non-word characters. However, this shouldn't be applied for apostrophes and dashes specifically that's why additional Title-case logic is added below.

```

*/
const alphaExtended = /^[a-zA-Z\s.'&-]+$/;
const lowerExtended = /^[a-z\s.'&-]+$/;
const upperExtended = /^[A-Z\s.'&-]+$/;

const isAllLower = lowerExtended.test(input);
const isAllUpper = upperExtended.test(input);

if ((isAllLower || isAllUpper) && alphaExtended.test(input)) {
  // Additional Title-case logic for apostrophes and dashes
  const toTitleCase = (str) => {
    return str
      .toLowerCase()
      // Capitalize first letter of each word (words
include apostrophes)
      .replace(/\b([a-zA-Z])([a-zA-Z']*)\b/g, (_, first,
rest) =>
        first.toUpperCase() + rest
      )
      // Lowercase all dashed subwords except the first
one
      .replace(/\b([A-Z][a-zA-Z']*)-([a-zA-Z'-]+)\b/g,
(_, first, rest) => {
        const fixedRest = rest
          .split('-')
          .map(w => w.charAt(0).toLowerCase())
          .join('-');
        return `${first}-${fixedRest}`;
      });
  };
  input = toTitleCase(input);
} else {
  new Notice("Characters used prevent automatic Title-case
formatting.\n\nUse the dictionary (Alt + Shift + N) for custom keyword
titles.");
}

// Dictionary override (case-insensitive)
const dictMatch = keywordDictionary[input.toLowerCase()];

```

```

if (dictMatch) {
    input = dictMatch;
}

// Resulting title (used in filename, display text, and link)
const keywordTitle = input;

// Final constructed display with (MOC) tag
const displayText = `${keywordTitle} (MOC)`;

// Used in wiki link and filename
const link = `[[${displayText}]]`;
const keywordFilename = `${displayText}.md`;

// Step 4: Generate note from template (case-insensitive check)
const templatePath = "10 Templates/12 Keywords/12.01 Entries/Keyword
Note.md";
const targetFolder = "20 Keywords";
const targetPath = `${targetFolder}/${keywordFilename}`;

let existingNote = null;
const folderObj = app.vault.getAbstractFileByPath(targetFolder);
if (folderObj && folderObj.children) {
    existingNote = folderObj.children.find(f =>
        f.name.toLowerCase() === keywordFilename.toLowerCase()
    );
}

if (!existingNote) {
    const templateFile =
app.vault.getAbstractFileByPath(templatePath);
    if (!templateFile) {
        new Notice("Keyword template not found.");
        return;
    }
    let templateContent = await app.vault.read(templateFile);
    templateContent = templateContent.replace(/{{VALUE}}/g,
keywordTitle);
    await app.vault.create(targetPath, templateContent);
}

// Step 5: Add wiki link to active note under "Keywords:"
const activeFile = app.workspace.getActiveFile();
if (!activeFile) {
    new Notice("No active file open.");
    return;
}

```

```

const fileContent = await app.vault.read(activeFile);
let lines = fileContent.split("\n");

// Detect YAML frontmatter
let fmStart = -1, fmEnd = -1;
for (let i = 0; i < lines.length; i++) {
  if (lines[i].trim() === "---") {
    if (fmStart === -1) fmStart = i;
    else {
      fmEnd = i;
      break;
    }
  }
}

// Find Keywords line
let keywordIndex = lines.findIndex(line =>
line.startsWith("Keywords:"));
let links = [];

if (keywordIndex !== -1) {
  // Pull existing links from the line
  const existingLine = lines[keywordIndex];
  const matchLinks = existingLine.match(/\[[^\]]+\]/g);
  if (matchLinks) links = matchLinks;
} else {
  // Determine insertion point
  let insertAt = 0;
  if (fmStart !== -1 && fmEnd !== -1) {
    insertAt = fmEnd + 1;
  }
  lines.splice(insertAt, 0, "Keywords:");
  keywordIndex = insertAt;
}

// De-duplicate check (case-insensitive)
const normalizedLinks = links.map(l => l.toLowerCase());
if (existingNote && normalizedLinks.includes(link.toLowerCase())) {
  new Notice(`"${displayText}" is already linked. Cleaning
duplicates...`);
}

// Add new link if not already there
if (!normalizedLinks.includes(link.toLowerCase())) {
  links.push(link);
}

// De-duplicate and sort

```

```
const uniqueSorted = [...new Set(links)].sort((a, b) => {
  const strip = s => s.replace(/\[\|\|\]/g, "").toLowerCase();
  return strip(a).localeCompare(strip(b));
});

// Update the Keywords line
lines[keywordIndex] = `Keywords: ${uniqueSorted.join(", ")}`;

// Save the updated file
await app.vault.modify(activeFile, lines.join("\n"));
};
```

APPENDIX D

CSS Snippets

Original Snippets

class-content-shift-up.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025g).

```
CSS
/*
This CSS snippet removes the top padding of a note
by a specified amount.

Applies to all views, source, reading, and live preview.

Use with caution, as excessive negative margins may
cause overlap with other elements or get cropped.

This snippet was made to adjust the spacing for notes
pinned in the sidebar.

How It Works:
- This defines three utility classes that shift content upwards.
- Each class applies a negative top margin of varying sizes:
  .content-shift-up-sm moves content up by 1em.
  .content-shift-up-md moves content up by 1.5em.
  .content-shift-up-lg moves content up by 2.5em.
- The `!important` flag ensures that the margin override takes effect,
  even if other styles attempt to modify it.
- These styles only affect the elements they are applied to,
  allowing for granular control over content positioning.
*/

.content-shift-up-sm {
  margin-top: -1em !important;
}

/* Potentially may cause cropping of elements */
.content-shift-up-md {
  margin-top: -1.5em !important;
}

/* causes cropping of the Properties element when in source view */
.content-shift-up-lg {
  margin-top: -2.5em !important;
}
```

class-hide-properties.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025g).

CSS

/*

This CSS snippet hides the "Properties" section in Obsidian for notes that have the 'hide-properties' class.

How It Works:

1. In Obsidian, you can assign a CSS class to a note by adding the following in the YAML frontmatter at the top of a note:

```
---  
cssclass: hide-properties  
---
```

2. When you do this, Obsidian automatically assigns the hide-properties class to the container of that note in the UI.

3. The rule below selects '.metadata-container' (which is the section containing metadata properties like aliases, tags, and custom frontmatter fields) *only* when it's inside a note that has the 'hide-properties' class.

4. 'display: none !important;' completely removes the metadata container from view, ensuring that it doesn't appear even if other styles try to override it.

*/

```
.hide-properties .metadata-container {  
  display: none !important;  
}
```

image-converter-captions-fix.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025k).

CSS

/*

This snippet specifically targets images with captions to constrain them within the readable line length.

".internal-embed.image-embed[alt]" ensures the styles

```

only apply to embedded images that have captions,
since the Image Converter plugin uses the "alt" attribute
to store captions
*/
.image-captions-enabled .internal-embed.image-embed[alt] {
  max-width: var(--line-width) !important; /* Enforces readable line
length, preventing images from exceeding it */
  width: 100% !important; /* Ensures images scale
responsively within their allowed space */
  display: block; /* Converts images as an
inline element to a block-level element, i.e., allows the line below to
function */
  margin: 0 auto; /* Centers the image and
captions properly */
}

```

readingview-add-space-dataview-tables-and-lists.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025j).

```

CSS
/*
This only applies to the reading view of Obsidian.
*/
.markdown-preview-view {
  /* Add space on top and bottom of Dataview tables */
  .dataview.table-view-table {
    margin-top: 1.25em !important; /* adjust as needed */
    margin-bottom: 0em !important; /* adjust as needed */
  }

  /* Add space on top and bottom of Dataview lists */
  .dataview.list-view-ul {
    margin-top: 1.25em !important; /* adjust as needed */
    margin-bottom: 0em !important; /* adjust as needed */
  }
}

```

readingview-center-images.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025j).

```
CSS
/*
This snippet centers images in the reading view.

Applies for both internal images, ![[image.png]], and
external images, 
*/
.markdown-preview-view img {
  display: block;
  margin-left: auto;
  margin-right: auto;
  max-width: 100%;
  height: auto;
}
```

readingview-customized-ordered-list.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025j).

```
CSS
/*
Inspired by:
https://forum.obsidian.md/t/how-to-customize-ordered-list-using-css/8242

This snippet dynamically adjusts ordered list styles based on
nesting depth. It ensures lists remain numbered correctly in
complex structures. It also resets when an unordered list (ul)
is introduced which I am assuming is a native Obsidian functionality.

"list-style-type" values (e.g., "i.", "ii."; "a.", "b.") can be changed.
See https://www.w3schools.com/cssref/pr\_list-style-type.asp for options.

Limitations:
- only works in reading view (since it targets "ul" and "ol" tags)
*/

/* GENERAL SETTINGS FOR ORDERED LISTS */
ol {
  /*
  Remove default list numbering. No built-in
  list styles (like bullets or numbers) are
  applied.
  */
}
```

```

    */
    list-style-type: none;

    /*
    Initializes the counter to 0 for the first
    level of ordered lists. Needed to start
    numbering from 1 for the first item in any
    ordered list.
    */
    counter-reset: list-counter;
}

/* FIRST-LEVEL ORDERED LISTS - DECIMAL */
ol > li {
    /*
    Increments the counter by 1 for each list
    item at the first level of the ordered
    list (1, 2, 3, etc.).
    */
    counter-increment: list-counter;
}

ol > li::marker {
    /*
    Uses the counter value (list-counter) to
    display the numbering for each item. This
    results in "1. ", "2. ", etc.
    */
    content: counter(list-counter) ". ";
}

/* SECOND-LEVEL ORDERED LIST - LOWER LATIN */
ol > li > ol {
    /*
    Resets the counter for the second level
    of ordered lists. This allows the second
    level to start from "a.".
    */
    counter-reset: latin-counter;
}

ol > li > ol > li {
    /*
    Increments the latin-counter for each
    list item at the second level. Results
    in the second level to be numbered using
    lowercase Latin letters (a, b, c, etc.).
    */
}

```

```

    counter-increment: latin-counter;
}

ol > li > ol > li::marker {
    /*
    Uses the latin-counter to display the
    numbering for each lowercase Latin letter.
    This results in "a.", "b.", etc.
    */
    content: counter(latin-counter, lower-latin) ". ";
}

/* THIRD LEVEL ORDERED LIST - LOWER ROMAN */
ol > li > ol > li > ol {
    /*
    Resets the counter for the third level,
    allowing it to start at "i."
    */
    counter-reset: roman-counter;
}

ol > li > ol > li > ol > li {
    /*
    Increments the roman-counter for each
    list item at the third level. Results in
    the numbering using lower Roman numerals
    (i, ii, iii, etc.).
    */
    counter-increment: roman-counter;
}

ol > li > ol > li > ol > li::marker {
    /*
    Uses the roman-counter to display the
    number for each lowercase Roman letter.
    This results in "i.", "ii.", etc.
    */
    content: counter(roman-counter, lower-roman) ". ";
}

/* FOURTH-LEVEL ORDERED LISTS - DECIMAL */
ol > li > ol > li > ol > li > ol {
    counter-reset: list-counter-4;
}
ol > li > ol > li > ol > li > ol > li {
    counter-increment: list-counter-4;
}
ol > li > ol > li > ol > li > ol > li::marker {

```

```

        content: counter(list-counter-4) ". ";
    }

    /* FIFTH-LEVEL ORDERED LISTS - LOWER LATIN */
    ol > li > ol > li > ol > li > ol > li > ol {
        counter-reset: latin-counter-5;
    }
    ol > li > ol > li > ol > li > ol > li > ol > li {
        counter-increment: latin-counter-5;
    }
    ol > li > ol > li > ol > li > ol > li > ol > li::marker {
        content: counter(latin-counter-5, lower-latin) ". ";
    }

    /* SIXTH-LEVEL ORDERED LISTS - LOWER ROMAN */
    ol > li > ol > li > ol > li > ol > li > ol > li > ol {
        counter-reset: roman-counter-6;
    }
    ol > li > ol > li > ol > li > ol > li > ol > li > ol {
        counter-increment: roman-counter-6;
    }
    ol > li > ol > li > ol > li > ol > li > ol > li > ol > li::marker {
        content: counter(roman-counter-6, lower-roman) ". ";
    }

    /* SEVENTH-LEVEL ORDERED LISTS - DECIMAL */
    ol > li > ol > li > ol > li > ol > li > ol > li > ol > ol {
        counter-reset: list-counter-7;
    }
    ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol {
        counter-increment: list-counter-7;
    }
    ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > li::marker {
        content: counter(list-counter-7) ". ";
    }

    /* EIGHTH-LEVEL ORDERED LISTS - LOWER LATIN */
    ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > ol {
        counter-reset: latin-counter-8;
    }
    ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > li {
        counter-increment: latin-counter-8;
    }
    ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > li::marker {
        content: counter(latin-counter-8, lower-latin) ". ";
    }

```

```

}

/* NINTH-LEVEL ORDERED LISTS - LOWER ROMAN */
ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol >
li > ol {
  counter-reset: roman-counter-9;
}
ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol >
li > ol > li {
  counter-increment: roman-counter-9;
}
ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol > li > ol >
li > ol > li::marker {
  content: counter(roman-counter-9, lower-roman) ". ";
}
}

```

styling-tag-nodes.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025i).

```

CSS
/*
Change the color of tag nodes in Obsidian's graph view
for both light and dark themes.

How It Works:
1. Obsidian's graph view contains various types of special nodes:
  - Tags
  - Unresolved (does not exist)
  - File Attachments

2. The class '.graph-view.color-fill-tag' specifically targets
tag nodes, meaning this rule applies only tags in the graph.

3. 'color' sets the text or primary color of the tag node,
affecting how it appears in the graph.

4. 'stroke' changes the outline color of the tag node to match
the text color, keeping a consistent visual style.

5. '!important' ensures that these rules override any default
Obsidian styles that might otherwise apply to tag nodes.
*/
.theme-light .graph-view.color-fill-tag {
  color: rgb(51, 51, 51) !important;
}

```

```

    stroke: rgb(51, 51, 51) !important;
}

.theme-dark .graph-view.color-fill-tag {
  color: rgb(255, 255, 255) !important;
  stroke: rgb(255, 255, 255) !important;
}

```

readingview-internal-links-styling.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025k).

```

CSS
/*
Recolors internal block and subheading links across all notes,
this way it can be visually differentiated from internal file links.

This only applies to the reading view of Obsidian.

How it works:
The href attribute or the obsidian-flavored markdown syntax of a block
link contains "#^", while the href attribute of a subheading link only
contain "#". href*="#" means that if an internal link contains the "#"
anywhere in its href, the internal link will be recolored.
*/

/* Light Theme Recolor*/
.theme-light .markdown-preview-view a.internal-link[href*="#" ] {
  color: #922fc4 !important; /* purple */
}

.theme-light .markdown-preview-view a.internal-link[href*="#" ]:hover {
  color: #bf64ec !important; /* darker purple */
}

/* Dark Theme Recolor*/
.theme-dark .markdown-preview-view a.internal-link[href*="#" ] {
  color: #9f6bb9 !important; /* light purple */
}

.theme-dark .markdown-preview-view a.internal-link[href*="#" ]:hover {
  color: #cb8ee9 !important; /* white purple */
}

```

styling-footnotes.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025l).

```
CSS
/*
Recolors footnote links across all notes, so they can be visually
differentiated from other internal links.

This only applies to the reading view of Obsidian.

How it works:
Footnotes in reading view are typically contained within <sup> elements
and use the class "footnote-link", allow this snippet to change their color.
*/

/* Light Theme Recolor */
.theme-light .markdown-preview-view sup a.footnote-link {
  color: #922fc4 !important; /* purple */
}

.theme-light .markdown-preview-view sup a.footnote-link:hover {
  color: #bf64ec !important; /* darker purple */
}

/* Dark Theme Recolor */
.theme-dark .markdown-preview-view sup a.footnote-link {
  color: #9f6bb9 !important; /* light purple */
}

.theme-dark .markdown-preview-view sup a.footnote-link:hover {
  color: #cb8ee9 !important; /* white purple */
}
```

styling-empty-page-list.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025d).

```
CSS
/*
This CSS snippet customizes the "empty state" view in Obsidian—typically
seen on new tabs or when no file is open.

How It Works:
- The default "Create new note" button is visually hidden by reducing its
font size to 0, without removing the element entirely.
```

- The remaining buttons (actions 2 to 5) are styled to resemble soft, tactile UI buttons using PKB's design language:
 - Rounded borders with subtle gray tints
 - Clean padding and spacing for a uniform stack
 - Font size and weight for better readability
- A hover state is added to each button:
 - Orange highlight background
 - Accent-colored border and text
 - Slight scaling for responsive feedback
- Theme variables (`--newtab-border-color`, `--newtab-text-color`) adjust for both light and dark modes, ensuring consistency.
- The list is pulled upward using negative margin and `transform: translateY()` for better alignment with any top graphics or SVGs.
- Spacing between buttons is handled with `gap`, and unnecessary top margins are removed to avoid extra whitespace.

Caution:

- Avoid using overly large negative margins or transform values to prevent visual overlap with UI graphics.
- Class names like `.empty-state-action-list` or `.empty-state-container` may be theme- or plugin-specific and could change in future updates.

```

*/

/* Hide the default "Create new note" text */
.empty-state-action-list .empty-state-action:first-of-type {
  font-size: 0; /* hides text without removing the element */
  position: relative;
}

/* Style the remaining actions (buttons 2 to 5) using PKB accent color */
.empty-state-action-list .empty-state-action:nth-of-type(n+2) {
  border: 1px solid var(--newtab-border-color);
  border-radius: 6px;
  padding: 0 1.25em;
  margin: 0 -0.6em;
  font-size: 1rem;
  font-weight: 400;
  color: var(--newtab-text-color);
  background-color: rgba(178, 179, 179, 0.05); /* soft gray tint */
  transition: all 0.2s ease;
  text-align: center;
  cursor: pointer;
}

/* Hover state */
.empty-state-action-list .empty-state-action:nth-of-type(n+2):hover {
  background-color: rgba(255, 153, 0, 0.15); /* orange tint */
  color: #ff980c;
}

```

```

border-color: #ff980c;
transform: scale(1.02);
}

/* Theme-specific variables */
.theme-light {
  --newtab-border-color: #b2b3b3;
  --newtab-text-color: #b2b3b3;
}

.theme-dark {
  --newtab-border-color: #5c5c5c;
  --newtab-text-color: #5c5c5c;
}

/* Pull the entire action list closer together */
.empty-state-action-list {
  display: flex;
  flex-direction: column;
  gap: 0.5em; /* consistent spacing
between buttons */
  margin-top: 0.5em; /* brings the list closer
to the graphics, note: this affects the styling on hover editor as well when
hovering on non-md files or non-existent files */
}

/* Remove any top margin that buttons 2-5 might have */
.empty-state-action-list .empty-state-action:nth-of-type(n+2) {
  margin-top: 0;
}

.empty-state-container {
  transform: translateY(-4em); /* clean lift of entire
section, note: this affects the styling on hover editor as well when
hovering on non-md files or non-existent files */
}

```

colored-folders.css

Written by Christian Paul R. Velo, reviewed by ChatGPT (OpenAI, 2025b).

CSS

/*

This CSS snippet customizes the appearance of Obsidian's file explorer.
Folder background colors are hardcoded based on their top-level directory

names (with rounded corners set globally). Additionally, Folder and File names, Collapsed Icons, Vertical Guidelines, and File Tags are assigned their own colors and hover states.

Designed to be clean and legible across both light and dark themes.

How It Works:

- `.nav-folder` targets all containers (folders) including their title and any children (files or subfolders)
- `.nav-folder:has(> .nav-folder-title)` targets all folder containers that have a title and its children.
- `.nav-folder:has(> .nav-folder-title[data-path=""])` targets a specific container with a title (based on its ``data-path`` attribute) and its children.
- `.nav-folder-title` targets just the container's title bar, i.e., the clickable row that displays the folder name and icon.
- `.nav-folder .collapse-icon svg` targets all the collapse/expand icon (chevron) in the file explorer
- `.nav-folder-title .collapse-icon svg` targets the chevron in a *single* folder title.
- `.nav-file-title` targets the title row of a file inside the file explorer.
- `.nav-file-tag` targets the small tag label that appears next to a file name.
- `.nav-folder:has(> .nav-folder-title) > .tree-item-children` targets only the `tree-item-children`, which is the internal container holding that folder's files and subfolders.
- `.tree-item-children` is a sibling to `.nav-folder-title`, not nested inside it.
- Styling the `tree-item-children's border-left` draws the vertical guide line.
- For the folder background colors, RGB instead of HEX is used since it is the default color model in Obsidian, makes the code easy to reference when changing node colors.
- `:has()` is a parent selector > it filters the folder container based on whether it contains a specific element (like `.nav-folder-title`).

Caution:

- Be mindful of theme updates that may override CSS rules or rename internal classes.
 - Folders must retain exact ``data-path`` names to match the selectors.
- ```
*/
```

```
.nav-files-container {
 scrollbar-gutter: stable; /*
 reserve space for the scrollbar */
}
```

```
/* General UI styling */
```

```

.nav-folder .collapse-icon svg,
.nav-folder-title,
.nav-file-title {
 color: var(--default-color);
}

/* Vertical guidelines styling */
.nav-folder:has(> .nav-folder-title) > .tree-item-children {
 border-left: 1px solid var(--default-color);
}

/* File tag styling */
.nav-file-tag {
 font-size: 0.6em;
 color: var(--default-color);
 border: 1px solid var(--default-color);
 border-radius: 6px;
 margin-left: 6px;
}
spacing from filename */

/* Folder hover animation */
.nav-folder-title:hover, /* folder
name */
.nav-folder-title:hover .collapse-icon svg { /*
collapse icon */
 background-color: transparent !important; /*
disables hover highlight on folder name */
 color: var(--hover-color) !important;
 transition: color 0.1s ease;
}
.nav-folder:has(> .nav-folder-title:hover) { /* folder
outline */
 box-shadow: 0 0 0 2px var(--hover-color);
 transition: box-shadow 0.1s ease;
}
.nav-folder:has(> .nav-folder-title:hover) > .tree-item-children { /*
vertical guidelines */
 border-color: transparent;
 transition: border-color 0.75s ease;
}

/* File name hover state */
.nav-file-title:hover { /* file
name */
 cursor: pointer;
}

```

```

 background-color: #FF990080 !important; /*
hard-coded (accent color with transparency) since it doesn't change between
light and dark mode */
}
.nav-file-title:hover .nav-file-tag { /* file
tag */
 color: var(--default-color); /*
--hover-color (and animations) not used to feel more snappy between hover
and active state of file names */
}

/* Is-active handling (selected) */
.nav-file-title.is-active, /* file
name */
.nav-file-title.is-active:hover { /*
hovering over an active file maintains its active formatting */
 color: var(--active-color) !important;
 transform: scale(1.02);
 border: 1px solid var(--active-color) !important;
 background-color: var(--hover-color) !important; /*
replaces the hard-coded, semi-transparent background color above with the
accent color of PKB*/
 transition: transform 0.1s ease;
}
.nav-file-title.is-active .nav-file-tag { /* file
tag: when the file name is active, the tag is affected */
 color: var(--active-color) !important;
 border: 1px solid var(--active-color) !important;
}

/* Has-focus handling (right-click or arrow-key navigation) */
.nav-folder-title.has-focus {
 box-shadow: none !important;
 background-color: #89898940 !important;
}
.nav-file-title.has-focus {
 box-shadow: none !important;
 background-color: #89898940 !important;
}
.nav-file-title.is-active.has-focus {
 background-color: var(--default-reversed) !important;
 transform: scale(1);
 transition: transform 0.1s ease;
}

/* Theme-specific variables */
.theme-light {

```

```

--default-color: #4a4a4a; /* #898989
is the HEX code for the color Obsidian UI/Minimal theme uses (for both light
and dark) but it doesn't provide good contrast */
--default-reversed: #bbbbbb;
--hover-color: #f28500; /* although
#FF9900 is the accent color of PKB it doesn't provide good readability in
light mode */
--active-color: black;
}

.theme-dark {
--default-color: #bbbbbb;
--default-reversed: #4a4a4a;
--hover-color: #FF9900;
--active-color: white;
}

/* Folder background styling */
.nav-folder:has(> .nav-folder-title) {
border-radius: 6px;
}

/* Folder background gray colors */
.theme-light .nav-folder:has(> .nav-folder-title[data-path="00 System"]),
.theme-light .nav-folder:has(> .nav-folder-title[data-path="10 Templates"]) {
background-color: rgb(215, 215, 225); /* pastel lavender gray, node
counterpart: rgb(160, 160, 170) */
}
.theme-dark .nav-folder:has(> .nav-folder-title[data-path="00 System"]),
.theme-dark .nav-folder:has(> .nav-folder-title[data-path="10 Templates"]) {
background-color: rgb(75, 75, 85); /* dark muted lavender gray */
}

/* Folder background unique colors (node counterpart applies to both
themes)*/
.theme-light .nav-folder:has(> .nav-folder-title[data-path="20 Keywords"]) {
background-color: rgb(255, 229, 168); /* pastel yellow, node
counterpart: rgb(253, 245, 28) */
}
.theme-dark .nav-folder:has(> .nav-folder-title[data-path="20 Keywords"]) {
background-color: rgb(125, 110, 75); /* darker yellow-brown */
}

.theme-light .nav-folder:has(> .nav-folder-title[data-path="30 Journal"]) {
background-color: rgb(225, 240, 185); /* mellow pastel lime-avocado,
node counterpart: rgb(160, 205, 90) */
}

```

```

.theme-dark .nav-folder:has(> .nav-folder-title[data-path="30 Journal"]) {
 background-color: rgb(95, 105, 65); /* dull olive-lime */
}

.theme-light .nav-folder:has(> .nav-folder-title[data-path="40 Slip-box"]) {
 background-color: rgb(200, 235, 200); /* pastel green, node
counterpart: rgb(129, 201, 126) */
}

.theme-dark .nav-folder:has(> .nav-folder-title[data-path="40 Slip-box"]) {
 background-color: rgb(70, 100, 70); /* dark moss green */
}

.theme-light .nav-folder:has(> .nav-folder-title[data-path="50 Databases"])
{
 background-color: rgb(195, 220, 255); /* pastel blue, node
counterpart: rgb(120, 180, 255) */
}

.theme-dark .nav-folder:has(> .nav-folder-title[data-path="50 Databases"]) {
 background-color: rgb(60, 85, 105); /* dark steel blue */
}

.theme-light .nav-folder:has(> .nav-folder-title[data-path="60 Research"]) {
 background-color: rgb(215, 200, 255); /* pastel violet, node
counterpart: rgb(122, 82, 255) */
}

.theme-dark .nav-folder:has(> .nav-folder-title[data-path="60 Research"]) {
 background-color: rgb(85, 75, 105); /* muted purple */
}

.theme-light .nav-folder:has(> .nav-folder-title[data-path="70"]) { /*
update the data-path when you've added assigned a value to 70*/
 background-color: rgb(245, 185, 245); /* pastel pink-violet, node
counterpart: rgb(218, 112, 214) */
}

.theme-dark .nav-folder:has(> .nav-folder-title[data-path="70"]) {
 background-color: rgb(105, 70, 105); /* dark pink-purple */
}

.theme-light .nav-folder:has(> .nav-folder-title[data-path="80
Worldbuilding"]) {
 background-color: rgb(255, 190, 200); /* pastel rose, node
counterpart: rgb(234, 84, 122) */
}

.theme-dark .nav-folder:has(> .nav-folder-title[data-path="80
Worldbuilding"]) {
 background-color: rgb(115, 70, 75); /* deep desaturated rose */
}

```

```

.theme-light .nav-folder:has(> .nav-folder-title[data-path="90 Output"]) {
 background-color: rgb(255, 210, 170); /* pastel tangerine, node
counterpart: rgb(255, 132, 31) */
}
.theme-dark .nav-folder:has(> .nav-folder-title[data-path="90 Output"]) {
 background-color: rgb(120, 85, 60); /* burnt orange-brown */
}

```

## Modified Snippets

styling-empty-page-chri.css

```

CSS
/*
This is a modified code, the original author is sai1494.
https://discord.com/channels/686053708261228577/702656734631821413/105234686
4055369808
https://github.com/r-u-s-h-i-k-e-s-h/Obsidian-CSS-Snippets/blob/Collection/S
nippets/Empty%20tab%20styling.md

This allows you to create a hover effect on a custom image in the empty page
of Obsidian.

The images must be an SVG file and is Base64-encoded or URL-encoded.
Example of Base64 encoding:
"data:image/svg+xml;base64,PHN2ZyB4bWxucz0iaHR0cDovL3d3dy53My..."
Example of URL encoding:
"data:image/svg+xml;base64,PHN2ZyB4bWxucz0iaHR0cDovL3d3dy53My..."

Lastly, make sure that the SVG is optimized, can be done online or through
ChatGPT.
*/

/* Ensures the empty state container is fully visible and removes height
restrictions */
.empty-state-container {
 max-height: unset;
 opacity: 1 !important;
}

/*
Adds a custom SVG image as a background in dark theme.
The 'content' property sets the image, and 'opacity' controls its
transparency.
*/

```

```

.theme-dark .empty-state-container::before {
 content:
 url("data:image/svg+xml;base64,PHN2ZyB4bWxucz0iaHR0cDovL3d3dy53My5vc...");
 /* Base64-encoded SVG, FULL CODE REDACTED*/
 opacity: 30%;
 filter: invert(100%) brightness(85%); /* changes the SVG's colors to
white, see below */
}

/*
Same as above, but applied to the light theme.
This allows for theme-specific images or adjustments.
*/
.theme-light .empty-state-container::before {
 content:
 url("data:image/svg+xml;base64,PHN2ZyB4bWxucz0iaHR0cDovL3d3dy53My5vc...");
 /* Base64-encoded SVG, FULL CODE REDACTED */
 opacity: 30%;
}

/*
Changes the image and fully reveals it when the empty state container is
hovered.
Also applies a color filter effect to modify the SVG appearance.
*/
.empty-state-container:hover::before {
 content: url("data:image/svg+xml;base64,PHN2ZyB4bWxucz0iaHR0cDovL3...");
 /* Base64-encoded SVG, FULL CODE REDACTED */
 opacity: 100%;
 transition: opacity 1000ms cubic-bezier(0.25, 0.8, 0.25, 1); /* Smooth
fade-in effect */
 /*
Applies a filter to adjust the SVG's colors to yellowish-orange:
- invert(58%): Inverts colors partially
- sepia(96%): Adds a warm tone
- saturate(1000%): Increases color intensity
- hue-rotate(-10deg): Shifts colors slightly
- brightness(100%): Keeps brightness normal
- contrast(105%): Slightly boosts contrast
*/
 filter: invert(58%) sepia(96%) saturate(1000%) hue-rotate(-10deg)
brightness(100%) contrast(105%);
}

/* Hides the empty state title text */
.empty-state-title {
 display: none;
}

```

## readingview-headings-spacing-adjustment.css

```
CSS
/*
This uses the Contextual Typography plugin to add additional
information to the divs:
https://github.com/mgmeyers/obsidian-contextual-typography

This is a modified code, the original author is mr_abomination.
https://forum.obsidian.md/t/reduce-the-margin-between-headers-paragraphs-headers-lists-paragraphs-lists-but-keep-the-margin-between-paragraphs-reading/33632/3

This only applies to the reading view of Obsidian.
*/
.markdown-preview-view {
 /*
 Removes top space from an unordered and ordered list when it follows a
 paragraph text.
 */
 div.el-p + div.el-ul > ul,
 div.el-p + div.el-ol > ol {
 margin-top: -1em; /* adjust as needed */
 }

 /*
 Removes top space from a paragraph text when it follows a horizontal
 rule.
 Paragraph texts also include tags and embeds except iframes.
 */
 div.el-hr + div.el-p > p {
 margin-top: -1.75em; /* adjust as needed */
 }

 /* Removes top space from a paragraph text when it follows a heading. */
 div.el-h1 + div.el-p > p,
 div.el-h2 + div.el-p > p,
 div.el-h3 + div.el-p > p,
 div.el-h4 + div.el-p > p,
 div.el-h5 + div.el-p > p,
 div.el-h6 + div.el-p > p {
 margin-top: -1.35em;
 }

 /* Removes top space from a quote when it follows a heading */
 div.el-h1 + div.el-blockquote > blockquote,
 div.el-h2 + div.el-blockquote > blockquote,
 div.el-h3 + div.el-blockquote > blockquote,
 div.el-h4 + div.el-blockquote > blockquote,
```

```

div.el-h5 + div.el-blockquote > blockquote,
div.el-h6 + div.el-blockquote > blockquote {
 margin-top: -1.25em;
}

/* Removes top space from a codeblock when it follows a heading */
div.el-h1 + div.el-pre > pre,
div.el-h2 + div.el-pre > pre,
div.el-h3 + div.el-pre > pre,
div.el-h4 + div.el-pre > pre,
div.el-h5 + div.el-pre > pre,
div.el-h6 + div.el-pre > pre {
 margin-top: -1em;
}

/* Removes top space from an ordered list when it follows a heading */
div.el-h1 + div.el-ol > ol,
div.el-h2 + div.el-ol > ol,
div.el-h3 + div.el-ol > ol,
div.el-h4 + div.el-ol > ol,
div.el-h5 + div.el-ol > ol,
div.el-h6 + div.el-ol > ol {
 margin-top: -1.35em;
}

/* Removes top space from an unordered list when it follows a heading */
div.el-h1 + div.el-ul > ul,
div.el-h2 + div.el-ul > ul,
div.el-h3 + div.el-ul > ul,
div.el-h4 + div.el-ul > ul,
div.el-h5 + div.el-ul > ul,
div.el-h6 + div.el-ul > ul {
 margin-top: -1.35em;
}

/* Removes top space from a horizontal rule when it follows a heading */
div.el-h1 + div.el-hr > hr,
div.el-h2 + div.el-hr > hr,
div.el-h3 + div.el-hr > hr,
div.el-h4 + div.el-hr > hr,
div.el-h5 + div.el-hr > hr,
div.el-h6 + div.el-hr > hr {
 margin-top: -1.35em;
}

/*
Removes bottom space from a heading when a table follows it.

```

Removing top space from a table results in a crop once it hits the bottom margin of the header above it, hence a different approach is implemented.

```
*/
div.el-h1:has(+ div.el-table),
div.el-h2:has(+ div.el-table),
div.el-h3:has(+ div.el-table),
div.el-h4:has(+ div.el-table),
div.el-h5:has(+ div.el-table),
div.el-h6:has(+ div.el-table) {
 margin-bottom: -1.75em;
}

/* Spreads out concurrent headings (of the same size) */
div.el-h1 + div.el-h1 > h1,
div.el-h2 + div.el-h2 > h2,
div.el-h3 + div.el-h3 > h3,
div.el-h4 + div.el-h4 > h4,
div.el-h5 + div.el-h5 > h5,
div.el-h6 + div.el-h6 > h6 {
 margin-top: 1.67em !important; /* adjust as needed */
}

/* Adjust spacing for inline tags for better readability */
a.tag {
 margin-top: 0.3em; /* Adjust as needed */
 display: inline-block; /* Forces it to respect vertical margins */
}
}
```

remove-pin-icon.css

```
CSS
/*
This is a modified code, the original author is damikiller37.
https://discord.com/channels/686053708261228577/702656734631821413/1122956284040327328
https://github.com/r-u-s-h-i-k-e-s-h/Obsidian-CSS-Snippets/blob/Collection/Snippets/Pinned%20tab%20styling.md

This snippet also requires Installer version 1.1.9+ due to the use of :has.

Unpin pinned notes using the right click context menu.
*/
```

```

/* Hides the pin icon in sidebar and tabs */
.workspace-tab-header:has(.mod-pinned)
.workspace-tab-header-status-container {
 display: none;
}

/* Adjusts the padding for tabs for a balanced appearance */
.workspace-tab-header:has(.mod-pinned) .workspace-tab-header-inner {
 padding: 0 var(--size-4-2);
}

```

styling-command-palette-accent-color.css

```

CSS
/*
This is a modified code, the original author is rushi.
https://github.com/r-u-s-h-i-k-e-s-h/Obsidian-CSS-Snippets/blob/Collection/Snippets/Command%20palette%20styling%2002.md
*/

.suggestion-item.is-selected {
 background-color: hsla(var(--interactive-accent-hsl), 0.8);
 border-radius: 6px;
}

.prompt {
 border-radius: 8px;
}

.suggestion-highlight {
 color: var(--text-accent);
}

.suggestion-item.is-selected .suggestion-highlight {
 color:whitesmoke !important;
}

```

## styling-gummy-callout.css

```
CSS
/*
This is a modified code, the original author is kneecaps.
source:
https://discord.com/channels/686053708261228577/744933215063638183/1114979796250787890
https://github.com/r-u-s-h-i-k-e-s-h/Obsidian-CSS-Snippets/blob/Collection/Snippets/Callout%20styling%20-%20Gummy%20callout.md
*/

.theme-dark {
 --color-callout-blue: #263850;
 --color-callout-teal: #264e50;
 --color-callout-green: #265029;
 --color-callout-yellow: #4c5026;
 --color-callout-orange: #504126;
 --color-callout-red: #502626;
 --color-callout-purple: #392650;
 --color-callout-gray: #3b3b3b;

 --color-callout-border-blue: #516073;
 --color-callout-border-teal: #507171;
 --color-callout-border-green: #507153;
 --color-callout-border-yellow: #6e7150;
 --color-callout-border-orange: #716550;
 --color-callout-border-red: #715050;
 --color-callout-border-purple: #6f4b79;
 --color-callout-border-gray: #616161;
}

.theme-light {
 --color-callout-blue: #def1ff;
 --color-callout-teal: #e0feff;
 --color-callout-green: #e0ffe3;
 --color-callout-yellow: #ffffe0;
 --color-callout-orange: #fff2e0;
 --color-callout-red: #ffe0e0;
 --color-callout-purple: #ede0ff;
 --color-callout-gray: #ededed;

 --color-callout-border-blue: #c7d8e5;
 --color-callout-border-teal: #c7e5e5;
 --color-callout-border-green: #cce5c7;
 --color-callout-border-yellow: #e3e5c7;
 --color-callout-border-orange: #e5dbc7;
 --color-callout-border-red: #e5c7c7;
 --color-callout-border-purple: #d8c7e5;
}
```

```

--color-callout-border-gray: #dbdbdb;
}

/* Applies only in reading mode */
.markdown-preview-view {
 .callout[data-callout="note"],
 .callout[data-callout="seealso"] {
 border: 1px solid var(--color-callout-border-blue);
 background: var(--color-callout-blue);
 }

 .callout[data-callout="abstract"],
 .callout[data-callout="summary"],
 .callout[data-callout="tldr"] {
 border: 1px solid var(--color-callout-border-teal);
 background: var(--color-callout-teal);
 }

 .callout[data-callout="info"],
 .callout[data-callout="todo"] {
 border: 1px solid var(--color-callout-border-blue);
 background: var(--color-callout-blue);
 }

 .callout[data-callout="tip"],
 .callout[data-callout="hint"],
 .callout[data-callout="important"] {
 border: 1px solid var(--color-callout-border-teal);
 background: var(--color-callout-teal);
 }

 .callout[data-callout="success"],
 .callout[data-callout="check"],
 .callout[data-callout="done"] {
 border: 1px solid var(--color-callout-border-green);
 background: var(--color-callout-green);
 }

 .callout[data-callout="question"],
 .callout[data-callout="help"],
 .callout[data-callout="faq"] {
 border: 1px solid var(--color-callout-border-yellow);
 background: var(--color-callout-yellow);
 }

 .callout[data-callout="warning"],
 .callout[data-callout="caution"],
 .callout[data-callout="attention"] {

```

```

border: 1px solid var(--color-callout-border-orange);
background: var(--color-callout-orange);
}

.callout[data-callout="failure"],
.callout[data-callout="fail"],
.callout[data-callout="missing"] {
border: 1px solid var(--color-callout-border-red);
background: var(--color-callout-red);
}

.callout[data-callout="danger"],
.callout[data-callout="error"] {
border: 1px solid var(--color-callout-border-red);
background: var(--color-callout-red);
}

.callout[data-callout="bug"] {
border: 1px solid var(--color-callout-border-red);
background: var(--color-callout-red);
}

.callout[data-callout="example"] {
border: 1px solid var(--color-callout-border-purple);
background: var(--color-callout-purple);
}

.callout[data-callout="quote"],
.callout[data-callout="cite"] {
border: 1px solid var(--color-callout-border-gray);
background: var(--color-callout-gray);
}

/* Custom Admonition */
.callout[data-callout="pkb"] {
border: 1px solid var(--color-callout-border-gray);
background: var(--color-callout-gray);
}

/* Animation when hovering */
.callout {
border-radius: 8px;
transition: 700ms;
}

.callout:hover {
transform: translateY(4px);
}

```

```
}
```

## styling-quote.css

```
CSS
/*
This modification is reviewed by ChatGPT (2025).
*/
/*
This is a modified code, the original author is ApolloGoneRogue.
source:
https://forum.obsidian.md/t/how-to-achieve-css-code-snippets/8474/244?u
https://github.com/r-u-s-h-i-k-e-s-h/Obsidian-CSS-Snippets/blob/Collection/Snippets/Blockquote%20styling%2002.md

This snippet provides a style to blockquotes and to the <cite> element
in reading view only.

*/
.markdown-preview-view blockquote {
 border-color: #FF9900 !important;
 border-left-width: 2px !important;
 /*
 remove this comment to enable the gradient background
 background-image: linear-gradient(
 to right,
 rgba(191, 133, 26, 0.1),
 rgba(191, 133, 26, 0)
);
 */
 font-size: 1em;
 line-height: 1.5em;
 margin: auto;
 margin-bottom: 10px;
 padding-top: 10px;
 padding-bottom: 10px;
 padding-right: 15px;
 width: 90%;
 /*
 remove this comment if you enable the logo below,
 this is for the purpose of adding space for the
 logo to the left side of the quote
 width: 80%;
 */
}
```

```
.markdown-preview-view blockquote {
 position: relative;
}

/*
this is the logo, remove this comment to enable the logo
.markdown-preview-view blockquote:after {
 content: "\275D";
 position: absolute;
 top: 0.4em;
 left: -1em;
 font-size: 2.5em;
 color: #FF9900;
}
*/

cite {
 color: #ffae33;
 text-align: end;
 display: block;
}
```

The rest of the snippets, `class-equal-space-dataview-columns.css` and `styling-tooltip-accent-color.css`, are imported without any modifications. Please see their respective references entry for access and more information.

## APPENDIX E

### Python Script for Companion Vault Sync

Assuming Python is already installed, open the terminal in the folder where `main.py` is, and enter:

```
python -m pip install -r requirements.txt
```

Then enter the build code, choose between the two below:

**without terminal:**

```
pyinstaller --onefile --windowed --name "Companion Vault Sync" --icon=cvsicon.ico --add-data "cvssicon.ico;." --add-data "idle.png;." --add-data "working.png;." --add-data "reset.png;." main.py
```

**with terminal (for debugging):**

```
pyinstaller --onefile --name "Companion Vault Sync" --icon=cvssicon.ico --add-data "cvssicon.ico;." --add-data "idle.png;." --add-data "working.png;." --add-data "reset.png;." main.py
```

requirements.txt

```
None
ttkbootstrap
pywin32
```

main.py

The preliminary structure of this code was prompted in ChatGPT (OpenAI, 2025c). Refined and extended by the author, Christian Paul R. Velo, with further assistance from ChatGPT.

```
Python
Standard Library
import os
```

```

import sys
import json
import shutil
import subprocess
import re
import time
from datetime import datetime
from pathlib import Path

Third-Party
import win32com.client
import tkinter as tk
import ttkbootstrap as ttk
from ttkbootstrap.constants import *
from tkinter import PhotoImage, BooleanVar, messagebox

Ttkbootstrap widgets
from ttkbootstrap import Toplevel, Label, Frame, Button, Checkbutton,
Scrollbar, Canvas

Paths and Constants
root = None # Declare globally
CONFIG_FILE = "config.json"
SRC_VAULT = Path("REDACTED") #Redacted for privacy
DEST_VAULT = Path("REDACTED") #Redacted for privacy

if getattr(sys, 'frozen', False):
 EXE_DIR = Path(sys.executable).parent
else:
 EXE_DIR = Path(__file__).parent
ASSETS_DIR = Path(getattr(sys, '_MEIPASS', EXE_DIR))
BASE_DIR = EXE_DIR # config + logs live next to exe
LOG_FOLDER = BASE_DIR / "Companion Vault Sync Logs"
ICON_PATH = ASSETS_DIR / "cvsicon.ico"
DEFAULT_CONFIG = {
 "folders": [
 "REDACTED" #Redacted for privacy
],
 "protected_files": [
 "00 System/00 About/Changelog.md",
 "00 System/00 About/Structure Guide.md",
 "00 System/00 About/User Guide.md",
 "00 System/01 Files/REDACTED", #Redacted for privacy
 "00 System/01 Files/REDACTED", #Redacted for privacy
 "00 System/01 Files/REDACTED", #Redacted for privacy
 "00 System/01 Files/REDACTED", #Redacted for privacy
 "00 System/01 Files/REDACTED", #Redacted for privacy
 "00 System/01 Files/REDACTED", #Redacted for privacy
]
}

```

```

 "00 System/01 Files/REDACTED", #Redacted for privacy
 "00 System/01 Files/REDACTED", #Redacted for privacy
 "00 System/01 Files/REDACTED", #Redacted for privacy
 "00 System/01 Files/REDACTED", #Redacted for privacy
 "10 Templates/10 General/REDACTED", #Redacted for privacy
 "10 Templates/12 Keywords/REDACTED", #Redacted for privacy
 "10 Templates/13 Journal/REDACTED", #Redacted for privacy
 "10 Templates/13 Journal/REDACTED", #Redacted for privacy
 "10 Templates/13 Journal/REDACTED", #Redacted for privacy
 "10 Templates/14 Slip-box/REDACTED", #Redacted for privacy
 "10 Templates/14 Slip-box/REDACTED", #Redacted for privacy
 "20 Keywords/REDACTED", #Redacted for privacy
 "20 Keywords/REDACTED" #Redacted for privacy
],
"base_source_path": "REDACTED" #Redacted for privacy
}

Utility Functions
def load_config():
 path = BASE_DIR / CONFIG_FILE
 if not path.exists():
 with open(path, "w") as f:
 json.dump(DEFAULT_CONFIG, f, indent=2)
 return DEFAULT_CONFIG
 with open(path, "r") as f:
 return json.load(f)

def prepare_log_file():
 LOG_FOLDER.mkdir(exist_ok=True)
 ts = datetime.now().strftime("%Y-%m-%d_%H-%M-%S")
 return LOG_FOLDER / f"sync_log_{ts}.txt"

def format_size(bytes):
 for unit in ['B', 'KB', 'MB', 'GB']:
 if bytes < 1024:
 return f"{bytes:.1f} {unit}"
 bytes /= 1024
 return f"{bytes:.1f} TB"

def format_display_label(full_path: str, prefix: str = None) -> str:
 parts = Path(full_path).parts
 if len(parts) >= 2:
 folders = parts[:-1]
 filename = parts[-1]
 last_folder = folders[-1] if folders else ""
 area_code = last_folder.split(" ")[0]
 return f"[{prefix}] {area_code} {filename}" if prefix else
f"{area_code} {filename}"

```

```

return f"[{prefix}] {full_path}" if prefix else full_path

def cleanup_old_backups(max_backups=1):
 backup_pattern = re.compile(r"\.backup_\d{8}_\d{6}")
 backups = sorted(
 [f for f in BASE_DIR.glob(".backup_*") if f.is_dir() and
 backup_pattern.match(f.name)],
 key=os.path.getmtime,
 reverse=True
)
 for old in backups[max_backups:]:
 try:
 shutil.rmtree(old)
 except Exception as e:
 print(f"[WARN] Failed to delete old backup {old}: {e}")

def is_explorer_open_on_drive(target_path: str) -> bool:
 # Returns True if any File Explorer window is open on the same drive as
 target_path.
 drive_letter = Path(target_path).drive.lower() # e.g., 'g:'
 shell = win32com.client.Dispatch("Shell.Application")
 for window in shell.Windows():
 try:
 if window.Name == "File Explorer":
 folder_path = window.Document.Folder.Path
 if Path(folder_path).drive.lower() == drive_letter:
 return True
 except:
 continue
 return False

def safe_delete_with_retry(path, log, retries=3):
 for attempt in range(retries):
 try:
 if path.is_symlink():
 path.unlink() # Always safe for symlinks (files or dirs)
 elif path.is_file():
 path.unlink()
 elif path.is_dir():
 shutil.rmtree(path)
 return True
 except Exception as e:
 log.write(f"[RETRY {attempt+1}] Could not delete {path}: {e}\n")
 time.sleep(0.5)
 log.write(f"[FAILED] Could not delete {path} after {retries}
 attempts.\n")
 return False

```

```

Main Sync Logic
def sync_folders(image_label, idle_img, working_img, button):
 config = load_config()
 folders = config.get("folders", [])
 copied, updated, updated_full = [], [], []
 total_size = 0

 for folder in folders:
 src = SRC_VAULT / folder
 dst = DEST_VAULT / folder
 if not src.exists():
 continue

 for dirpath, _, files in os.walk(src):
 rel_dirpath = Path(dirpath).relative_to(src)
 dst_dirpath = dst / rel_dirpath
 for file in files:
 rel_path = str(Path(folder) / rel_dirpath /
file).replace("\\", "/")
 if rel_path in config.get("protected_files", []):
 print(f"[SKIP] Protected file: {rel_path}")
 continue # Skip protected file

 src_file = Path(dirpath) / file
 dst_file = dst_dirpath / file

 if not dst_file.exists():
 copied.append(str(dst_file.relative_to(DEST_VAULT)))
 total_size += src_file.stat().st_size
 elif src_file.stat().st_mtime > dst_file.stat().st_mtime:
 updated.append(str(dst_file.relative_to(DEST_VAULT)))
 updated_full.append((src_file, dst_file))
 total_size += src_file.stat().st_size

 show_preview_window(copied, updated, updated_full, total_size,
image_label, idle_img, working_img, button)

Reset Source Vault
def reset_source_vault(config, folders, protected_files, base_vault,
image_label, idle_img, reset_img, reset_button, make_backup=False):
 if is_explorer_open_on_drive(str(SRC_VAULT)):
 messagebox.showwarning("Close File Explorer", "Please close any File
Explorer windows open on the drive where the Companion Vault is stored
before resetting.")
 return

global root
assert root is not None, "Root tkinter instance not initialized."

```

```

log_file = LOG_FOLDER /
f"reset_log_{datetime.now().strftime('%Y-%m-%d_%H-%M-%S')}.txt"
LOG_FOLDER.mkdir(exist_ok=True)

image_label.config(image=reset_img)
reset_button.config(state="disabled")
root.update_idletasks()

tmp_backup = EXE_DIR / ".tmp_protected_backup"
if tmp_backup.exists():
 shutil.rmtree(tmp_backup)

Optional full backup before reset
if make_backup:
 full_backup_dir = BASE_DIR /
f".backup_{datetime.now().strftime('%Y%m%d_%H%M%S')}"
 log_file.parent.mkdir(parents=True, exist_ok=True)
 log_file.touch() # ensure log file exists early
 log = open(log_file, "a", encoding="utf-8")
 try:
 log.write(f"\n[INFO] Creating full vault backup to:
{full_backup_dir}\n")
 shutil.copytree(SRC_VAULT, full_backup_dir)
 log.write(f"[INFO] Full backup created at:
{full_backup_dir}\n\n")
 cleanup_old_backups(max_backups=1) # Only keep the most recent
backup
 except Exception as e:
 log.write(f"[ERROR] Failed to create full backup: {e}\n\n")
 finally:
 log.close()
 # Re-open log in normal context
 log = open(log_file, "a", encoding="utf-8")

print(f"[DEBUG] Writing reset log to {log_file}")

with open(log_file, "w", encoding="utf-8") as log:
 log.write(f"Reset started: {datetime.now().isoformat()}\n")
 log.write(f"Folders to reset: {folders}\n")
 log.write(f"Protected files: {protected_files}\n\n")

Step 1: Backup protected files
log.write("Backing up protected files...\n")
for rel_path in protected_files:
 src_path = SRC_VAULT / rel_path
 dst_path = tmp_backup / rel_path
 dst_path.parent.mkdir(parents=True, exist_ok=True)

```

```

 if src_path.exists():
 shutil.copy2(src_path, dst_path)
 log.write(f" [BACKUP] {rel_path}\n")

Step 2: Clear listed folders
log.write("\nDeleting contents of folders...\n")
for folder in folders:
 target_folder = SRC_VAULT / folder
 if target_folder.exists() and target_folder.is_dir():
 for item in target_folder.iterdir():
 try:
 log.write(f" [DELETE]
{item.relative_to(SRC_VAULT)}\n")
 safe_delete_with_retry(item, log)
 except Exception as e:
 log.write(f" [ERROR] Could not delete {item}:
{e}\n")
 continue #skip file/folder errors safely

Step 3: Restore from base vault
log.write("\nRestoring from base vault...\n")
for folder in folders:
 base_path = base_vault / folder
 dest_path = SRC_VAULT / folder
 if not base_path.exists():
 log.write(f" [SKIP] Base folder {base_path} does not
exist.\n")
 continue #skip if base folder is missing

 for dirpath, _, files in os.walk(base_path):
 rel_dirpath = Path(dirpath).relative_to(base_path)
 target_dirpath = dest_path / rel_dirpath
 os.makedirs(target_dirpath, exist_ok=True)
 for f in files:
 shutil.copy2(Path(dirpath) / f, target_dirpath / f)
 log.write(f" [RESTORE] {folder}/{rel_dirpath}/{f}\n")

Step 4: Restore protected files
log.write("\nRestoring protected files...\n")
for rel_path in protected_files:
 backup_path = tmp_backup / rel_path
 restore_path = SRC_VAULT / rel_path
 restore_path.parent.mkdir(parents=True, exist_ok=True)
 if backup_path.exists():
 shutil.copy2(backup_path, restore_path)
 log.write(f" [RESTORED] {rel_path}\n")

```

```

 log.write("\nReset completed:
 {}\n".format(datetime.now().isoformat()))

 if tmp_backup.exists():
 shutil.rmtree(tmp_backup)

 messagebox.showinfo("Reset Complete", "The Companion Vault has been
 reset safely.")

 image_label.config(image=idle_img)
 reset_button.config(state="normal")

 subprocess.Popen(f'start "" "{LOG_FOLDER}"', shell=True)

GUI Windows
def show_warning_window(image_label, idle_img, reset_img, reset_button):
 config = load_config()
 folders = config.get("folders", [])
 protected_files = config.get("protected_files", [])
 base_vault = Path(config.get("base_source_path", SRC_VAULT /
 "REDACTED")) # Redacted for privacy

 preview_win = Toplevel()
 preview_win.title("Reset Companion Vault")
 preview_win.geometry("540x480")
 preview_win.iconbitmap(str(ICON_PATH))

 Label(preview_win, text=" WARNING: This will wipe selected folders in
 the Companion Vault.",
 font=("Segoe UI", 10, "bold"), foreground="red").pack(pady=(10,
 5))

 Label(preview_win, text="Only the listed protected files will be
 preserved and restored.",
 font=("Segoe UI", 9), wraplength=500).pack(pady=(0, 10))

 content_frame = Frame(preview_win)
 content_frame.pack(fill="both", expand=True, padx=10)

 canvas = Canvas(content_frame)
 canvas.pack(side="left", fill="both", expand=True)

 scrollbar = Scrollbar(content_frame, orient="vertical",
 command=canvas.yview)
 scrollbar.pack(side="right", fill="y")
 canvas.configure(yscrollcommand=scrollbar.set)

 inner = Frame(canvas)

```

```

canvas.create_window((0, 0), window=inner, anchor="nw")

Label(inner, text="Folders to reset:", font=("Segoe UI", 9,
"bold")).pack(anchor="w", pady=(0, 2))
for folder in folders:
 Label(inner, text=f" - {folder}", font=("Segoe UI",
9)).pack(anchor="w")

Label(inner, text="\nProtected files (will be preserved):", font=("Segoe
UI", 9, "bold")).pack(anchor="w", pady=(10, 2))
for f in protected_files:
 Label(inner, text=f" - {f}", font=("Segoe UI", 9),
wraplength=500).pack(anchor="w")

inner.update_idletasks()
canvas.configure(scrollregion=canvas.bbox("all"))

backup_var = BooleanVar(value=True) # default: backup enabled
Checkbutton(
 preview_win,
 text="Create full hidden backup before reset",
 variable=backup_var,
 bootstyle="info"
).pack(anchor="w", padx=20, pady=(5, 10))

Button(preview_win, text="Cancel", bootstyle="secondary",
command=preview_win.destroy).pack(side="left", padx=20, pady=15)

def execute_reset():
 if not messagebox.askyesno("Confirm Reset", "Are you sure you want
to reset the Companion Vault?"):
 return
 preview_win.destroy()
 print("[DEBUG] User confirmed reset.")
 root.bell() #play sound to notify action
 reset_source_vault(
 config, folders, protected_files, base_vault,
 image_label, idle_img, reset_img, reset_button,
 backup_var.get() #pass the user's checkbox choice
)
 print("[DEBUG] Reset function finished.")

Button(preview_win, text="Reset Vault", bootstyle="danger",
command=execute_reset).pack(side="right", padx=20, pady=15)

def show_preview_window(copied_files, updated_files, updated_files_full,
total_size, image_label, idle_img, working_img, button):
 preview_win = Toplevel()

```

```

preview_win.title("Preview Sync")
preview_win.geometry("520x460")
preview_win.iconbitmap(str(ICON_PATH))

Label(preview_win, text="The following files will be synced:",
font=("Segoe UI", 10)).pack(pady=(10, 5))

frame = Frame(preview_win)
frame.pack(fill="both", expand=True, padx=10)

canvas = Canvas(frame)
canvas.pack(side="left", fill="both", expand=True)

scrollbar = Scrollbar(frame, orient="vertical", command=canvas.yview)
scrollbar.pack(side="right", fill="y")
canvas.configure(yscrollcommand=scrollbar.set)

inner = Frame(canvas)
canvas.create_window((0, 0), window=inner, anchor="nw")

for path in copied_files:
 Label(inner, text=format_display_label(path,
"NEW")).pack(anchor="w")
for path in updated_files:
 Label(inner, text=format_display_label(path,
"UPDATE")).pack(anchor="w")

if not copied_files and not updated_files:
 Label(inner, text="No new or updated files.").pack(anchor="w")

inner.update_idletasks()
canvas.configure(scrollregion=canvas.bbox("all"))

Label(preview_win, text=f"Total: {len(copied_files) +
len(updated_files)} files, {format_size(total_size)}").pack()

Button(preview_win, text="Continue", bootstyle="warning",
command=lambda: proceed_to_selection(preview_win, updated_files_full,
copied_files, image_label, idle_img, working_img, button)).pack(pady=(5,
10))

def proceed_to_selection(preview_win, updated_full, copied, image_label,
idle_img, working_img, button):
 preview_win.destroy()
 if updated_full:
 show_selection_window(updated_full, copied, image_label, idle_img,
working_img, button)
 else:

```

```

 perform_sync(copied, updated_full, image_label, idle_img,
working_img, button)

def show_selection_window(updated_full, copied, image_label, idle_img,
working_img, button):
 win = Toplevel()
 win.title("Select Files to Overwrite")
 win.geometry("520x460")
 win.iconbitmap(str(ICON_PATH))

 Label(win, text="Select which files to overwrite:", font=("Segoe UI",
10)).pack(pady=10)

 mid_frame = Frame(win)
 mid_frame.pack(fill="both", expand=True)

 canvas = Canvas(mid_frame)
 canvas.pack(side="left", fill="both", expand=True)

 scrollbar = Scrollbar(mid_frame, orient="vertical",
command=canvas.yview)
 scrollbar.pack(side="right", fill="y")
 canvas.configure(yscrollcommand=scrollbar.set)

 inner = Frame(canvas)
 canvas.create_window((0, 0), window=inner, anchor="nw")
 check_vars = []

 for src, dst in updated_full:
 var = BooleanVar(value=True)
 rel = str(dst.relative_to(DEST_VAULT))
 text = format_display_label(rel)
 Checkbutton(inner, text=text, variable=var,
bootstyle="warning").pack(anchor="w", padx=10)
 check_vars.append((var, src, dst))

 inner.update_idletasks()
 canvas.configure(scrollregion=canvas.bbox("all"))

 # Buttons pinned to bottom
 bottom_frame = Frame(win)
 bottom_frame.pack(pady=10)

 Button(bottom_frame, text="Select All", bootstyle="warning-outline",
command=lambda: [var.set(True) for var, *_ in check_vars]).pack(side="left",
padx=5)

```

```

 Button(bottom_frame, text="Deselect All", bootstyle="warning-outline",
command=lambda: [var.set(False) for var, *_ in
check_vars]).pack(side="left", padx=5)
 Button(win, text="Start Sync", bootstyle="warning", command=lambda:
confirm_selection(win, check_vars, copied, image_label, idle_img,
working_img, button)).pack(pady=10)

def confirm_selection(win, check_vars, copied, image_label, idle_img,
working_img, button):
 selected = [(src, dst) for var, src, dst in check_vars if var.get()]
 win.destroy()
 perform_sync(copied, selected, image_label, idle_img, working_img,
button)

def perform_sync(copied, updated_full, image_label, idle_img, working_img,
button):
 try:
 assert root is not None, "Root tkinter instance not initialized."
 image_label.config(image=working_img)
 button.config(state="disabled")
 root.update_idletasks()

 log_file = prepare_log_file()
 config = load_config()
 folders = config.get("folders", [])

 with open(log_file, "w", encoding="utf-8") as log:
 log.write(f"Sync started: {datetime.now().isoformat()}\n")
 log.write(f"Source: {SRC_VAULT}\nDestination: {DEST_VAULT}\n")
 log.write(f"Folders checked: {' , '.join(folders)}\n\n")

 for path in copied:
 src = SRC_VAULT / path
 dst = DEST_VAULT / path
 os.makedirs(dst.parent, exist_ok=True)
 print(f"[COPY] {src} > {dst}")
 shutil.copy2(src, dst)
 log.write(f"[COPIED NEW] {path}\n")

 for src, dst in updated_full:
 os.makedirs(dst.parent, exist_ok=True)
 print(f"[COPY] {src} > {dst}")
 shutil.copy2(src, dst)
 log.write(f"[UPDATED] {dst.relative_to(DEST_VAULT)}\n")

 log.write("\n--- Sync Summary ---\n")
 log.write(f"New files copied: {len(copied)}\n")
 log.write(f"Existing files updated: {len(updated_full)}\n")

```

```

 log.write(f"\nSync completed: {datetime.now().isoformat()}\n")

 messagebox.showinfo(
 "Sync Complete",
 f"Copied {len(copied)} new files\nUpdated {len(updated_full)}
files",
 icon="info",
 parent=root
)
 image_label.config(image=idle_img)
 button.config(state="normal")

 subprocess.Popen(f'start "" "{LOG_FOLDER}"', shell=True)

 except Exception as e:
 messagebox.showerror("Sync Error", f"An error occurred during
sync:\n{e}", parent=root)
 image_label.config(image=idle_img)
 button.config(state="normal")
 return

GUI Setup
def main():
 global root
 LOG_FOLDER.mkdir(exist_ok=True)

 root = tk.Tk()
 ttk.Style("flatly")
 root.title("Companion Vault Sync")
 root.geometry("380x450")
 root.iconbitmap(str(ICON_PATH))
 root.wm_iconbitmap(str(ICON_PATH))

 idle_img = PhotoImage(file=ASSETS_DIR / "idle.png")
 working_img = PhotoImage(file=ASSETS_DIR / "working.png")
 reset_img = PhotoImage(file=ASSETS_DIR / "reset.png")

 image_label = ttk.Label(root, image=idle_img)
 image_label.pack(pady=30)

 ttk.Label(
 root,
 text="Sync new files from the Companion\nVault to PKB Vault (upload
only)",
 font=("Segoe UI", 10),
 bootstyle="secondary",
 justify="center"
).pack(pady=10)

```

```

sync_button = ttk.Button(
 root,
 text="Start Sync",
 command=lambda: sync_folders(image_label, idle_img, working_img,
sync_button),
 bootstyle="warning",
 width=25
)
sync_button.pack(pady=10)

reset_button = ttk.Button(
 root,
 text="Reset Companion Vault",
 command=lambda: show_warning_window(image_label, idle_img,
reset_img, reset_button),
 bootstyle="danger",
 width=25
)
reset_button.pack(pady=10)

Prevent images from being garbage collected
root.idle_img = idle_img
root.working_img = working_img
root.reset_img = reset_img

root.mainloop()

if __name__ == "__main__":
 main()

```

## APPENDIX F

### Plugin Update Tracker Security Audit by ChatGPT

(OpenAI, 2025f)

**Me:**

*are u capable of doing security audits on my obsidian plugins?*

**ChatGPT:**

I can review and explain Obsidian plugin code, check for common security risks, and flag anything suspicious or dangerous — like:

- Malicious code (e.g., sending your vault content to external servers).
- Unsafe use of eval, Function, or insecure APIs.
- Poorly handled file access, permissions, or remote fetches.
- Unexpected external connections (e.g., tracking or unencrypted API calls).

What I can do:

- Review plugin JavaScript/TypeScript code for:
  - Data leaks
  - Dangerous Node APIs
  - Insecure storage
- Summarize what each plugin does and if it touches sensitive areas (vault content, network, OS).
- Suggest safer alternatives, if needed.

What I can't do:

- Run live malware scans or sandbox tests.
- Guarantee 100% safety (no one can without full runtime analysis).
- Audit native dependencies in binary form (like compiled .node files).

If you want me to audit a plugin:

You can either:

1. Paste the plugin's code (or main JS file + manifest.json).
2. Tell me the plugin name (and source, like GitHub or Obsidian Community Plugins), and I'll fetch the public code and review it.

Would you like to start with a specific plugin?

**Me:**

*there's a plugin i want u to audit i saw this from its github, it's a plugin tracker.*

*"Plugin Update Tracker" currently has an F security grade at Obsidian Addict with tons of vulnerabilities: 2 critical 25 high 16 moderate What gives? "...*

## ChatGPT:

The Plugin Update Tracker for Obsidian, developed by swar8080, has previously received a low security grade on Obsidian Addict due to reported vulnerabilities. However, the developer has addressed many of these concerns, particularly those related to development tooling that doesn't impact the plugin's runtime behavior.

### Security Assessment

#### Strengths

- **Sanitization of Release Notes:** The plugin uses rehype-sanitize to sanitize HTML content in release notes, mitigating risks of cross-site scripting (XSS) attacks.github.com
- **Active Maintenance:** The plugin is actively maintained, with recent commits and updates, indicating ongoing attention to potential issues.

#### Considerations

- **Dependency Vulnerabilities:** Past reports highlighted vulnerabilities in development dependencies. While these have been addressed, it's essential to ensure that runtime dependencies are also secure.
- **Rendering External Content:** Displaying release notes from external sources introduces potential risks. Even with sanitization, there's a possibility of rendering malicious content if not handled correctly.

### Recommendations

- **Review Plugin Permissions:** Ensure that the plugin doesn't request unnecessary permissions that could compromise security
- **Regular Updates:** Keep the plugin updated to benefit from the latest security patches and improvements.
- **Use Trusted Sources:** Download plugins only from trusted sources, such as the official Obsidian community plugins repository.

### Conclusion

While the Plugin Update Tracker has taken steps to address previous security concerns, it's crucial to remain vigilant. Regularly review plugin permissions, keep plugins updated, and monitor for any unusual behavior within Obsidian.

If you need assistance reviewing specific plugins or have further questions about Obsidian's security practices, feel free to ask.

## APPENDIX G

### The Personal Knowledge Base's Plugin Information

```
JSON
{
 "app": {
 "internalPlugins": {
 "config": {
 "file-explorer": true,
 "global-search": true,
 "switcher": true,
 "graph": true,
 "backlink": true,
 "canvas": false,
 "outgoing-link": true,
 "tag-pane": false,
 "properties": false,
 "page-preview": true,
 "daily-notes": true,
 "templates": true,
 "note-composer": true,
 "command-palette": true,
 "slash-command": false,
 "editor-status": true,
 "bookmarks": false,
 "markdown-importer": false,
 "zk-prefixer": false,
 "random-note": true,
 "outline": true,
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 "slides": false,
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 "workspaces": false,
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 "sync": false,
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 "footnotes": false,
 "bases": false
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 "obsidian-footnotes",
 "obsidian-plugin-update-tracker",
 "obsidian-admonition",
```

```

"dataview",
"quickadd",
"obsidian-hover-editor",
"obsidian-hotkeys-for-specific-files",
"obsidian-minimal-settings",
"obsidian-icon-folder",
"obsidian-style-settings",
"obsidian-contextual-typography",
"image-converter",
"obsidian-view-mode-by-frontmatter",
"rename-files-label",
"obsidian-outliner",
"obsidian-smart-typography",
"obsidian-excalidraw-plugin",
"obsidian-importer",
"find-unlinked-files",
"better-word-count"
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 "dataview": {
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 "image-converter": {
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 "obsidian-footnotes": {
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```

```

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 "obsidian-icon-folder": {
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 "obsidian-importer": {
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 "obsidian-minimal-settings": {
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 "obsidian-view-mode-by-frontmatter": {
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 "quickadd": {
 "version": "2.3.0"
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 "rename-files-label": {
 "version": "1.0.0"
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},
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}

```