

KNOWING KNOWLEDGE IS A GOOD START

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"The only true wisdom is in knowing you know nothing."

— Socrates

We must think differently, look at things in a different way. Peace requires a world of new concepts, new definitions.

-- Yitzhak Rabin

Knowledge in the investment office

It has been increasingly apparent that investment offices need to define certain basic definitions to have a more efficient dialogue. Without it, ample time is spent defining, in mid-conversation, what each party means by the specific terminology.

This particular piece is about knowledge and its definition. The investment office, the amalgamation of processes, people, and policies can be viewed as a manufacturing plant. One that manufactures Alpha. In that, it focuses on constantly becoming more efficient.

Professor Ashby Monk suggests¹ that the hierarchy of knowledge starts with data, that with added context becomes information, and graduates to become and morph into intelligence. We disagree and believe that the next level up from knowledge is not intelligence but "judgment." At this level, the decision-makers create their decision models based on their experience. We find this type of decision to apply to any decision making, including the CIOs and the other senior members of the investment teams.

To improve its manufacturing ability, an investment office can only focus on its processes, comprised of people and technology. We believe that universally, a more knowledgeable team is desirable. The third component, Policies, are usually decided and controlled by the board and are hard to modify/edit.



Figure 1 <https://www.normanbroadbent.com/2019/01/30/knowledge-power-discuss/>

¹ For an engaging webinar please see [this](#).

Investment offices can improve their knowledge by improving the knowledge of their staff. The methods of education include training, practice, both formally and/or by osmosis. We have spent more than 20 years publishing our daily newsletter (www.investordna.net) with the hope of contributing to the investment officers' education.

Technology does not contribute to knowledge but is often a facilitator and speedster, and storer. This means that upgrading the technology can improve the types of decision-making metrics, provide them faster, and then store them for future usage. But technology also contributes to the investment office processes and their discipline.

At each step and activity, data is generated. Each piece of data will then get an opportunity to migrate into higher forms (e.g., information/knowledge) as they mature.

We push the concepts advanced by Ashby Monk one step further. We propose that the data-information-knowledge continuum is bifurcated, at every level, into two different types: quantitative and qualitative.

Quantitative knowledge

Quantitative data/info/knowledge consists of any type that can be added, subtracted, or subjected to mathematical operations. The examples include attribution, contribution, forecasting, performance, and risk.

Quantitative knowledge is better understood than qualitative. Fifty years of research around portfolio management (starting with William Sharpe) and technological research have made positive contributions to the field. The pathways for this type of knowledge are well understood: Managers generate alpha, then send their information through several processes, to various processors, including custodians, administrators, and system providers. The information is then collected and displayed for various end consumers. These pathways can be duplicative (or maybe even triplicative), inefficient, and cause great confusion and ambiguity around interpretations.

Investment offices are composed of a patchwork of technologies that were inherited through many former administrations, made through incremental decisions, based on availability and upgrades at the time, influenced by persistent large service providers, applied for temporary fixes or permanent patches, and affected by vacillating budgets, and made through biased judgments. These systems are mostly addressing quantitative knowledge.

The main particularity of quantitative knowledge is its variety based on the asset classes. Public equities use a time-weighted return (TWR) with tic-by-tic frequency, while private equities use the Investment Rate of Return (IRR) applied quarterly. This is not a private vs public type of asset class problem. Hedge funds use TWR while real assets use IRR.

We find the technologies addressing the quantitative knowledge deep in functionality and mature in company type. We find their technology mostly involved in traditional linear thinking and not needing to adapt to the latest available techniques.

Qualitative Knowledge

Qualitative data/info/knowledge is defined as information that doesn't lend itself to mathematical operations. The general categories are document management, meeting notes management, contact management, workflow management, and collaboration tools.

Qualitative knowledge in the investment office has not been formally recognized until a decade ago, and as a result, was deemed less important and less understood. Even now, this type of knowledge is not recognized as its own class, but something that can be addressed by currently available quantitative systems.

The example is apparent in the field of document management². Every quantitative system's latest approach has addressed this problem by offering the ability to apply tags to every document that enters their system, so it can be found later, through a tag search. Investment offices believing that these quant vendors have already solved the problem have failed to focus on a proper solution. What they fail to address is all the document management needs of the investment office (e.g., legal, procurement, etc.). As a result, the dominant document management solution in the investment office is still the "Z:\ Drive."

Qualitative data flow is very hard to identify. While the path of quantitative data is relatively linear, qualitative data can have many sources and paths. These paths are messy, informal, and as varied as there are tools. As an illustration, think of all the ways one collects data: from website downloads to e-mails and attachments, to hard copy slide-decks. Multiply this complexity by the number of employees in your office that need to save documents (i.e., don't forget the home computers), and you get a sense of the number of sources/paths that need to be harnessed.

The type of data for qualitative categories displays their uniqueness. Unlike the quantitative data that was specific to each asset class, the categories of data (i.e., meeting notes) are common to all asset classes. With very small variations, the same observation is made about workflows, contacts, or document management. The type of data generated by each subclass is distinctly different from different pathways and various database needs (e.g., contact info and meeting notes need to be saved in different databases, ideally).

The companies addressing qualitative knowledge are much more innovative and "younger" than their quantitative counterparts. Overall, we find the technology serving this type of knowledge much more exciting than quantitative counterparts.

Bifurcated but overlapping?

Even though the knowledge types are bifurcated, they are not necessarily distinct from each other. They sometimes intersect.

One of the main areas of intersection is during the reporting phase when data flows from GP to LP and their agents. In this phase, Capital Call documents or monthly factsheet, or quarterly estimates are sent to the LPs (i.e., considered qualitative and document management). The content has to be converted from unstructured to structured format (i.e., dollar amount and dates have to be entered into the quantitative system). This exercise

² see our paper [Technology Survey of Long Term Investors: Document Management](#)

has been undertaken either by humans (e.g. custodians and newer tech vendors) or machines (e.g., Machine Learning and Artificial Intelligence).

Another cross-over area is in reporting when meeting notes and performance data need to be combined with risk metrics, into reports, and various presentations.

We are certain this topic runs deep in the academic circles. Our intent is to have a workable definition to avoid all future confusion for references. We hope this document has offered a reasonable definition on the type of knowledge within the investment offices. As always, the above is simply our observations and could be challenged, improved, or abandoned for better observations. We are open to all dialogues and suggestions.

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***Cordatius** is the only management consulting firm dedicated to the investment offices of limited partners (LP). Its mission is to assist CIOs and COOs manage the digital transformation of their investment office across technology, processes, and people. It provides objective, knowledge-based advice, with a single goal in mind: to achieve their needs efficiently and cost-effectively.*

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