Vantage

How to Increase Creativity and Workflow Efficiency

Removing non-creative processes from creative people and workstations and centralizing these processes makes workflows more efficient

Workflows are Dynamic with Conflicting Goals in Creativity and Scale

That *change is the only constant* is clearly the case within media industries. One notable factor is that the amount and diversity of media being processed is steadily increasing, fueled by low cost yet high-quality cameras and an increasing number of distribution channels. This causes creative challenges as ingest, delivery, and other non-creative processing steps become more burdensome and critical. Ultimately, it is the zero-sum nature of time that limits creativity. If more time is spent ingesting, processing, and sending media, that means less time is left for creative editing, for telling the story. Consequently, as the amount of media increases, and if nothing changes in the workflows, the amount of creative time shrinks.

So, how should workflows evolve? How should workflows adapt to support unending change? Typically, the common first step in building out a workflow is to utilize shared storage. This could be common production storage such as a NAS or SAN or also second tier storage or archival storage. Yet, what comes next? How else can workflows evolve in order to best scale and also yield more creativity? This paper describes a sequential workflow evolution and a process which considers scale and creativity. This sequential approach is illustrated by the Workflow Pyramid.

MANAGE

CENTRALIZE

SHARE
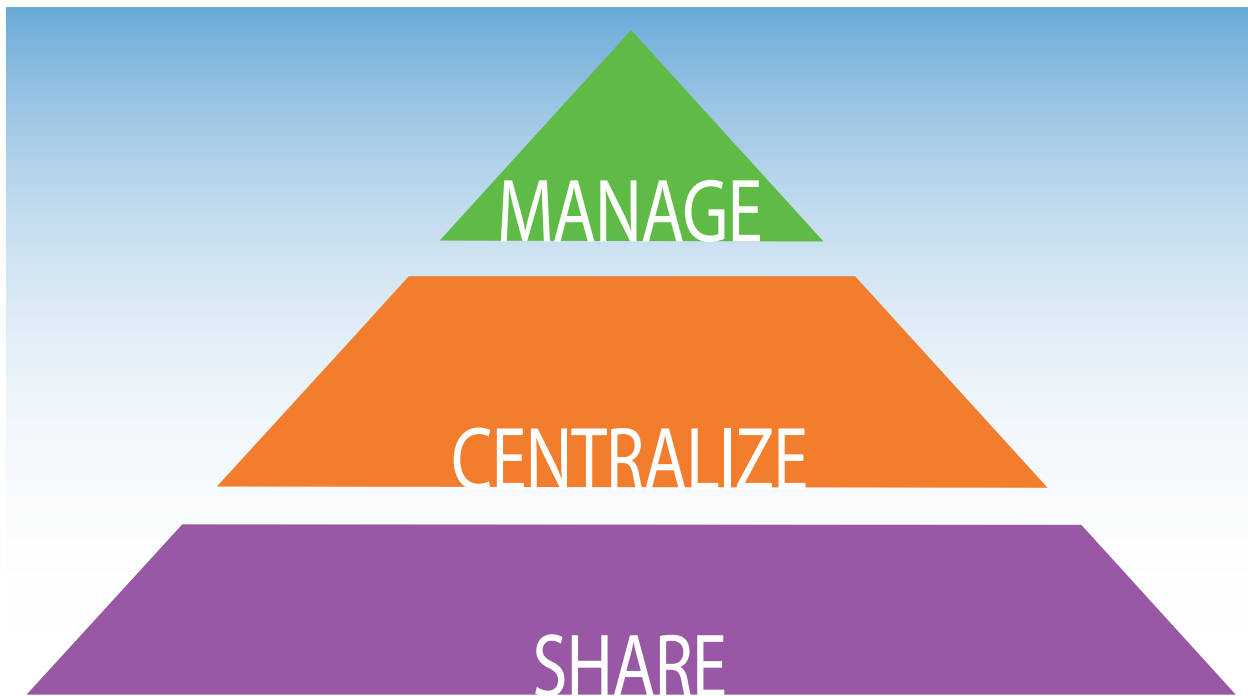
The Workflow Pyramid

The Workflow Pyramid depicts a staged or sequential workflow perspective. A pyramid is used because not all workflows require each stage, or each step. The need for progressing up the pyramid is typically determined by the need for increased creativity and/or scale.

Shared storage is the common first step in creating a collaborative or common workflow. The direct benefit of NAS, SAN, archival, and other forms of shared storage is scaled media storage. These technologies also enable the simultaneous ingest and access of media from multiple locations. Workflow efficiency is gained when ingest and editorial processes are able to occur in parallel with media that is easily accessible and shared.

However, the next step and associated goal is not clear. While shared storage introduces fundamental workflow benefits, many other workflow processes remain unaffected. Media ingest, for example, is still distributed, likely on editing systems, and includes many manual steps.

Deliveries are still done manually, likely also from editing systems, and these files may be inconsistently transcoded, named, or packaged. Many non-creative, media processing steps are also still done by creative folks, repetitive and routine processes done to meet delivery or quality standards.

These ingest, delivery, and media processing steps are difficult to manage as they are distributed across multiple systems and people. Burdening creative folks with such non-creative tedium adversely affects creativity and storytelling quality. The lack of effective, best workflow practices can also result in:

- Misplaced or misnamed files
- Excessive file sizes
- Duplicated files
- Inconsistent file delivery packaging, file and folder naming
- Inefficient storage usage
- Creative folks idled while their workstations transcode, framerate convert, burn in captions, or perform other such processes

> Bogging down creative people with non-creative work impacts production quality, company culture, and the bottom line.

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Centralizing Non-Creative Processes

Centralizing workflow processes is proposed as the second stage in workflow evolution – not asset management as many would believe. Adding shared storage alone does not change the work done by creative folks. It generally impacts how work is accessed. Non-creative processes such as ingest, delivery, and media processing are still done by creative people, on creative workstations.

Each of these non-creative processes can involve creative folks and workstations in many time-consuming, detailed processes. Ingest, for example, starts with identifying format and other characteristics, assuming a player to play the file is available. Subsequently, the file may be transcoded, named, a destination folder may be created and named, the file then moved onto the production storage and other versions of the same file possibly saved to archival or second tier storage.

Delivery involves steps such as additional transcoding, applying a pre or post roll, watermark, or logo, burning in timecode or captions, and then uploading the file. Between ingest and delivery, media processing steps include such non-creative processes as:

- Applying captions
- Changing caption formats
- Normalizing audio levels
- Syncing multi-camera edits
- Changing framerates
- Bagging and tagging
- Creating slates
- Removing telecine
- Applying LUTs
- Removing black
- Up and down-rezing
- Quality Control (QC)
- And many other necessary but rote processes that can consume creative folks and workstations for hours or days

Concentrating non-creative ingest, delivery, and media processing processes onto a centralized media processing server increases creativity and enables greater scale.

Centralizing these non-creative tasks also enables managerial oversight as best practices can be defined and measured. Overall workflow efficiency, i.e. an increase in creativity and scale, is gained as creative folks are less burdened by non-creative tasks and have greater access to creative workstations. Editors and assistant editors have more time to assess and mark content, add metadata, organize files into bins, and edit.

Workflow managers become able to define ingest, delivery, and media processing best practices, and they can define and collect Key Performance Indicators that measure storage and media usage, and track ingested and delivered files. In particular, workflow managers are better able to manage storage as file size protocols can be established (e.g. all files are conformed to QT-wrapped XDCAM 50, the editorial mezzanine format), file duplication is avoided, and all original or high-resolution files are placed on tape or second tier storage.

> Centralizing non-creative processes provides managers insight and control so that ingest, post production and distribution best practices can be implemented and monitored.

How non-creative processes are centralized and how these processes are triggered by editors, assistant editors, asset management–and others–will determine how effectively centralized services increase creativity and scale. Triggering ingest, delivery, and media processing routines should be intuitive, seamless, and naturally done. Ideal adaptations may require watch folders, API integration, XML support, and other common trigger interfaces. Administrators and some users will require browser-based views of the processing queue. The accessibility of triggers that initiate the processing of non-creative work and the status of this processing will greatly determine frequency of use and the extent of increased creativity and scale.

Finally, centralizing non-creative processes also better prepares the organization for the addition of asset management, if that step is to be taken. Having established ingest, delivery, and media processing best practices, including file name, folder structure, proxy and high-resolution file type and location, and other considerations, lessens the workflow impact and administrative complexity of adding asset management to a workflow.

Manage – Tip of the Pyramid

Building out a workflow sequentially will make adding asset management much easier and focused. Changing or amending established best practices may have slight or no impact upon editors, assistant editors, and other post / production folks because these changes are made on the centralized server and do not require new manual steps or education.

Examples of specific processes fundamental to any asset management system, and already managed via a centralized media processor, include file naming conventions, folder creation protocols and naming conventions, processing and placing camera original, editing mezzanine, and archival files, and other processes. Thus, adding asset management can focus on workflow roles and privileges, descriptive metadata, rights assignment, and other asset management-specific processes. The increased focus due to first centralizing non-creative processes leads to more effective and timely introductions of asset management systems!

Centralized Workflows Case Study

The Young Turks is an excellent example of an OTT company that saw the need for change, made a decision to change, and now enjoys more than five times the productivity they used to have. The Young Turks has thirty different distribution channels spread across multiple platforms, making them one of the largest online news organizations in the world. Their biggest problem was they didn't have all of the people and processing bandwidth they needed. All content is shot in Los Angeles, but the publishers are on the east coast. They couldn't get the number of clips they needed in time, and people were up at night until 3AM.

> The Young Turks realized, "we can do a lot better."

The Young Turks utilized Vantage to centralize how they ingest, process, and distribute video. No more late nights. Vantage takes care of all of the tedious technical tasks and "provides a solid foundation from a technical perspective." Producers and editors now focus more time on storytelling. And the tremendous growth experienced by The Young Turks is unlimited. You can watch the case study video here:
http://www.telestream.net/vantage/customers.htm

Conclusion

Technology can simultaneously assist creativity and provide the ability to scale. Non-linear editing enabled greater creativity by simplifying media access and creating more time to review media, apply locators, organize bins, and try different edits. Scale was increased as these processes required less and less time, such that editors could complete higher quality work in less time. Shared storage introduced workgroups, so collaborative teams can simultaneously ingest, share, and edit media. These changes saved more time which further increased creativity and scale. Yet these innovations are more than twenty years old. These revolutionary changes haven been woven into the status quo and are now widely assumed. Market change, however, is endless. So, the constant workflow question is: what changes need to be made in order to stay ahead of market demands? And how can these changes be made while having minimal creativity and productivity impact? This paper outlined how it is now possible to increase creativity while establishing workflow best practices — and further, how it is possible to do this in an intuitive fashion that encourages maximum utility. This is revolutionary.

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