Whitepaper

7 Best Practices for Managing Variable Communications

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Preface

Top marketers globally are embracing variable content in nearly all types of customer communications. Documents that were once largely static are now brimming with personalized messages and offers targeting specific individuals. This is all driven by such variables as age, gender, product preferences, credit score, postal code, purchase histories, and more that combine to dictate the exact message in each communication.

But there is a problem. In most companies, the Quality Assurance (QA) processes in place at financial institutions, insurance companies, retail chains and utilities have not kept pace with the level of variable messaging increasingly used in email and postal mail communications. The confluence of regulatory compliance, time pressures, demanding SLAs (Service Level Agreements), last minute changes, and smaller staffs make it ever more difficult to get things right. This opens the door to costly and embarrassing errors and at worst case even litigation.

Moreover, the accuracy of variable messages is under increased governmental scrutiny. In the United States, for example, a new federal agency, the Consumer Financial Protection Bureau (CFPB) has already levied substantial fines on leading credit card companies. This and other regulatory burdens make the cost of getting something wrong extend far beyond a reprint or a correction. As a result, countless companies are in danger of having to face the potential risk of damage to brand reputation, expensive litigation costs and other negative financial implications, not to mention lower stock valuation. In short, you need to know how to identify and to mitigate the risks.

As companies come to recognize these risks the reflexive reaction is simply adding more people to the QA process. But that is costly, cumbersome, and usually insufficient to handle increasingly complex customer-facing communications. A better approach is the adoption of seven key quality assurance practices that can help document owners, creators and producers manage risk and help ensure customized messaging is accurate. Each is important by itself, but when combined they provide a robust and enduring strategy for managing variable communications.

7 Best Practices in Quality Assurance for Variable Communications

Intelisent, based in Windsor, Connecticut, specializes in delivering enterprise-class multi-channel messaging capabilities in the direct marketing space. Its strong roots in content management, data processing, and communication tracking helped in the development of seven quality assurance practices that serve as a blueprint for variable communications. One of its customers is Data-Mail Inc, a full-service direct marketing company that produces over 1.5 billion pieces of correspondence annually for customers in financial services, retail, publishing, healthcare, insurance, telecom, and high-technology. Intelisent's seven best practices help Data-Mail produce large volumes of highly-personalized communications more efficiently, shorten development cycles, ensure variable content is correct, mitigate risk, and avoid additional costs.

1. Transparency: The more eyes that are focused on a problem equates to how thoroughly (and quickly) that problem can be solved.
2. Audit the Audit: Create automated mechanisms to ensure audit processes are being followed.
3. Revision Control: Treat variable documents like software.
4. Document Comparison: Compare documents to verify that changes are correct.
5. Beware of Variable Fonts: Minimize reliance on human checking by using the right technology.
6. Content Management: Choosing the right CM system may be the most important decision.
7. WFA Lockdown is Critical: Nothing can change when a document is waiting for approval.

Transparency: The open source model

"QA processes have to be as open and as transparent as possible. For every project, there must be a centralized QA checklist that outlines who is checking what," says Chris Bennett, CTO at Intelisent in Windsor, Connecticut. "The more people that are looking at a problem, in a well-coordinated manner, the faster that problem can be solved."

A standard auditing approach is to print out a thousand records for the coming month's mailing and compare them with a thousand records from the previous month and see what has changed. It is not an uncommon practice in financial institutions for one department to be checking the copy on a letter or flyer while another department is checking the variable data "pulls" - the logic that drives the document. Unfortunately, such old-style QA procedures of manually auditing (checking) a sample of documents, are inadequate for communications driven by multiple variables: it is all but impossible to know if all potential variable combinations are included. Very often, department heads and vendors alike are hesitant to admit to this lack of transparency because they are afraid of highlighting QA gaps that should have long since been identified.

 "It is commonplace for companies to simply add people to a manual process instead of using technology to improve the process and eliminate the errors further upstream," explains Bennett. "There are companies that try to review stacks of audits that are six inches thick. A team of people will sit in a conference room and pass the pages around, each person checking one area on each page as it reaches them. They do this for an entire day until they are finished. A lot of people may be looking for errors, but it is very costly and is not a reliable or efficient process."

That is because the introduction of just one nested variable can exponentially increase the number of permutations. Variability has reached the point where humans simply cannot catch all the potential errors because a nested variable can increase a thousand different possibilities to 10,000 or more.

Programs with such levels of complexity are typically not new communications developed each month but ones that expand over time. The risk is that as small changes are made each month it becomes increasingly difficult to be absolutely certain that a small change only affects the records it was supposed to impact.

Healthy organizations operate on the principle that the more employees, agencies and vendors are aware of the potential for error, the more likely that errors will be caught. All parties involved in QA should own a portion of the process. That ownership is accountable, visible, and if a problem arises it cascades down to post-mortem meetings that address the process and improve it. This should begin with a conversation with production staff which admits that an error is almost

Nested Variables

Nested variables are those that are triggered based on a specific set of choices, events, or other characteristics of the recipient. For example, an offer for a loan or credit card might be based on an individual using a card at a particular hotel chain and could vary by how frequently the card has been used.

Nested variables could be the state in which the person lives, their credit score, and the specific offer they are receiving. Legal disclosures (which may vary by state) could add further variables, quickly adding complexity to what seems to be a relatively straightforward offer.

"I have seen as many as a dozen levels of nested logic in a single variable paragraph," notes Intelisent's Bennett, "which makes manual auditing processes virtually impossible."

certain to occur, and that when it does the expectation is that every-one is regularly reviewing the processes and highlighting any gaps or omissions.

This transparent approach to QA – who is responsible and accounta-ble for checking what - is the first step toward having a robust process that can handle an increasing number of nested variables. "It is very basic and it really works but not many companies pursue this," notes Bennett. And it is the foundation for the other six practices.

Audit the Audit: Monitor the process with automated systems

No matter how robust and transparent the audit process may be, it still needs automated mechanisms to ensure that critical steps are followed properly and that complacency has not slipped into the workflow. These can include basic controls such as threshold scoring with CASS and NCOA to monitor address accuracy, and document comparison reports that highlight differences, especially for commu-nications that have changed since the last time they were output. Mailings processed through CASS, for instance, usually have a match rate in the low-to mid-90th percentile. Implementing mechanisms to ensure that communications are processed through CASS, and that they match within those thresholds, reduces the risk of a mailing going out and having a large portion of it return due to a programming issue that left off a portion of the address.

A further step could be implementing a simple automated solution that includes a spell check, with a report produced indicating all errors in a document. Even more sophisticated, production could be stopped until a thorough document comparison has been executed, with any errors highlighted and set aside to re-run once corrected.

Auditing the audit is largely a matter of paying attention to the details of a communication and ensuring that QA procedures are being followed consistently. An effective approach is using a checklist to sign off as each task is completed or having people known for their attention to detail to work as a team to ensure that key variables are verified in each audit process. "Without auditing the audit you can be absolutely assured that no matter how good your process is, people are not following all of the procedures all of the time," says Bennett.

Revision Control:
Treat variable documents like software

Software is normally developed using teams of people who work on different parts of an application simultaneously. It is standard operating procedure for software engineers to track all changes and modifications very closely so as to coordinate with each other's work and minimize the chance of unanticipated coding errors causing problems. The same practices should be followed with every aspect of variable data communications to avoid costly and embarrassing errors.

Consider a recent financial services communication that went out to tens of thousands of customers containing an offer that was no longer valid. The template for the document relied on a matrix of variables that pulled in paragraphs based on text codes on a customer's data file. The creative agency sent text templates to the letter shop, which assumed the files provided were correct. The standard procedure was to copy over only those files that had changed. The letter shop was supposed to just replace those new versions (with no reconciliation) but one file did not overwrite the previous one, and because the agency was not using revision codes, the error went undetected - until several thousand people started responding to the outdated offer.

In many organizations, marketers and production coordinators alike fail to follow good practices with respect to coding systems or nomenclature that indicates when copy is being re-used or when one version is more recent than another. Many kinds of errors can be prevented through use of collaborative tools such as SharePoint which helps manage document revisions across multiple users. But that is just one part of ensuring accuracy. It does nothing to address the challenges of accurate copy being used incorrectly due to nested variables.

It is important to use a revision indicator so that any copy changes include some type of revision code. Then structure the document composition process to be aware of these codes so the process will stop if the correct content - perhaps triggered by a nested variable - is not available. This step should also be incorporated into the auditing process. For instance, the text or revision code can be visible on the printed piece so those responsible for auditing can check that the correct copy is being used for each piece. For example, some companies print a line of small type at the bottom of a page that contains the text code. This confirms that the copy used is correct without someone having to read the actual copy.

Document Comparison: Change = Risk

Whenever an incorrect customer communication goes out, there is potential damage to brand reputation, customer trust and confidence, plus the cost of recreating, producing and mailing the offer again. Analysis by Intelisent shows that there is a much higher risk of error when changes are made to variable documents. While it is impossible to eliminate the need for alterations, it is important to ensure that all changes are intentional and correct. And ideally, every change must trigger a document comparison report showing that it was executed properly and that no inadvertent changes occurred.

"Modern documents can be so complex that manual processes are no longer adequate," says Intelisent's Chris Bennett. "You need automated systems to find the kind of errors that can crop up because of nested variables. You get the best results from using both word-for-word and pixel-to-pixel comparisons."

Automated comparisons are the best way to be prepared for an all too common scenario: You have a highly variable program and a random check of 500 records looks great. Then someone in marketing decides that a sentence has to be changed or the position of some text should shift. But those seemingly minor changes might reflow text and result in layout errors on some pages depending on the variables driving those pages. In such instances using a software tool that compares the revised version to the original is the only reliable way to ensure the document goes out error-free.

Automation also yields significant time savings. Manually checking of thousands of records can often take several people a day or more. An automated system can do the same work in a matter of minutes, producing a report highlighting any errors so they can be corrected before the job is printed.

Of course, document comparison is only workable on those elements. And be sure to continue refining the parameters to keep pace with the requirements of the jobs you produce.

The next challenge is implementing the document comparison software within your organization. With automation becoming more commonplace in many production workflows, this is often a matter of making comparison another mandatory step in the overall process: a job cannot be printed and mailed unless it passes a comparison audit. "It must be part of your standard operating procedure," affirms Bennett. "It won't be successful unless it is integrated it into your workflow, optimized for your operation, and your staff is trained to use it effectively."

Automated document comparison implementations that have completely changed the workflow in many operations. They increase accuracy, often with less skilled people, lowering costs and making companies more efficient.

Two Ways of Compare

1. **Word-to-word comparisons compare** the words used in two documents and highlight differences. This is straightforward and can even be done in some word processing programs. But when the documents use fonts of different sizes and typefaces word-to-word comparisons simply do not work.
2. **Pixel-to-pixel comparisons** evaluate pages at the pixel-level and can highlight differences that would be missed on word-to-word evaluations, including fonts, metadata, and colors.

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Beware of Variable Fonts: Minimize reliance on human checking by using the right technology

Fonts have been a challenge to everyone involved with digital printing for over 30 years and continue to cause - and hide - errors in variable customer communications. They affect readability, text flow, spacing, and the overall look and feel of a page. Then add branding, with companies insisting on specific fonts for certain applications, and accurate font use in high-volume variable customer communications becomes a challenge.

Fonts are a common problem when companies merge. Bank A has acquired Bank B and is sending out an offer for a new travel insurance product associated with customers' credit cards. John, a customer of Bank A, and Susan, a customer of Bank B are both sent almost identical communications. John's offering looks fine in the Arial font Bank A has always used, but on Susan's the copy has a few words cut off and the text flows differently because the Arial font requires more space than the Times Roman font previously used by Bank B.

Most document comparison tools - which often work from PDF versions of documents – can not be used to compare documents with different fonts. To catch the errors in this example proofreaders would have to compare all copy on a word-for-word basis, a time-consuming and expensive process that is fraught with errors. Compart DocBridge® Delta, a QA productivity solution, can be set to ignore the fonts and compare documents on both word-to-word and pixel-to-pixel levels to detect and report on such errors. And, with some composition engines, can make the necessary adjustments to correct the error during printing.

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Content Management: Selecting the right CM system may be the most important decision

It used to be that content management systems that would work on the enterprise level or were appropriate for high-volume customer communications carried price tags that made them hard to justify. Today though, there are several robust, capable and affordable options that are well-suited for variable communications. Able to handle shared assets such as text, maps, logos, and signatures, a CM system may include revision control, auto notification, expiration dates, and more. When combined with the other practices described in this paper, a CM system can streamline the QA processes for variable documents, because fewer elements are left open to human error.

For example, a financial services company uses a CM system to manage a library of hundreds of color images that are used in up to eight million variable communications each month. Four different creative agencies continually post revisions to the system, which automatically notifies the QA team about which images need to be re-verified. The same kind of system can handle virtually all the content needed in a mailing, including text, logos, and other variable data, streamlining the handling of these assets and reducing the chance of errors.

Consider something simple - but very important - like a corporate logo. Logos are used in countless places in different sizes and sometimes with different backgrounds. When one is updated it needs to be consistent everywhere it is used. A content management system can take the new versions from an ad agency, replace all the older ones, and automatically notify users of the change, ensuring accuracy and brand consistency.

Depending on your needs, there are basic CM systems that use tools such as SharePoint as well as highly sophisticated versions. Many businesses start with an entry-level solution to create the internal structures and business rules and then migrate to a more comprehensive system as their needs change.

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WFA Lockdown is Critical: Nothing can change, when a document is waiting for approval

It seems like an obvious part of the production process, but many companies forget that everything should be locked down when a variable document is under review and awaiting approval. Using shared assets and a content management system are very efficient in the overall process, but extra effort is required to ensure that no one can touch any element of a document when a variable communication is out for approval.

There are numerous scenarios in which variable communications may not be produced correctly because a matrix, table, copy block, or image is unknowingly modified. For instance, suppose there is a stored table that is referenced by a number of different variables. While a document is being approved, someone doing normal maintenance could make a change in that table; adding an extra variable or even something as minor as a carriage return. Because of the way stored tables are constructed and referenced, that change could impact multiple documents that are out for approval, and involve the content management structure as well.

As companies try to be more efficient, they do not want several copies of a stored table or a legal disclosure, they want a single one that is secure and reliable. To avoid problems, the best practice is to create an isolated folder into which "Waiting for Approval" (WFA) assets are moved while they are under review. This folder must be monitored to ensure no file edits are made in that location and be backed up by software that blocks changes to files.

Benefits of Compart DocBridge® Delta

- Ensures that all documents from any source meet the consistent high quality standards of your organization
- Creates transparency through meaningful feedback for all levels of users: developer, analyst and business user
- Faster process captures lost time with better productivity and better results
- Obsoletes most of the tedious, high manual effort of document QA

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Proven Practices

Every organization is under the inevitable pressures of time and budget, ever more demanding SLAs, last minute changes, and smaller staffs. Yet every variable content customer communication must go out on time, on budget and totally accurate - every time. It is not merely your company's brand and reputation that depend on it.

These seven best practices are proven to:

- Shorten the development and approval cycles without expanding staff.
- Ensure every document is right, every time.
- Ultimately mitigate the risk and cost of errors.

Like many companies, you may already have some of these practices in place in your organization. But the best results come from a comprehensive integration of all seven, because each draws on the value and strength of the others to provide an end-to-end solution that helps minimize risk and aid compliance across all your variable customer communications.