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Managing the Risks of Content Management Systems Adoption (Filenet): A Guide to Risk Analysis and Mitigation

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Annotation: Content management systems (CMS) have become a vital technology for organizations to create, manage, and publish digital content through intuitive web interfaces. However, adopting CMS also introduces considerable technological and organizational risks stemming from the integration and workflow changes needed to leverage these platforms. Without identifying and mitigating these risks, CMS initiatives frequently run into major issues around security, costs, user adoption, fragmented workflows, and an overall lack of value realization.

This paper provides a comprehensive survey of the most common risks arising during CMS implementation and proven mitigation strategies. The analysis examines risk areas across security, integration complexity, budget overruns, process disruption, inconsistent governance, and user resistance. For each area, prevalent risks are outlined along with industry best practices, frameworks, and guidelines to avoid or minimize potential pitfalls.

A structured risk analysis approach is presented, covering how organizations can proactively identify, evaluate, and treat risks throughout the CMS implementation lifecycle. Once risks are visible, mitigation actions can be prioritized and tailored to the organization's needs. Ongoing risk assessment is essential even after launch as new issues emerge.

Overarching best practices for managing CMS risks are highlighted based on industry evidence and risk management methodologies. These include establishing clear and realistic requirements, following secure software development lifecycles for customizations, phasing rollouts to simplify integration, budgeting for total cost of ownership, allowing time for user adoption, instituting adaptable governance, maintaining training reinforcement, and continuously monitoring and communicating risks.

With holistic risk analysis combined with structured change management, organizations can more confidently embark on CMS initiatives. Potential pitfalls are uncovered early and mitigated through cross-functional collaboration and oversight. Rather than being derailed by foreseeable risks, organizations can tap the full potential of CMS to improve content workflows, automation, and digital capabilities while avoiding major disruptions across people, processes, and technologies. The survey highlights how multifaceted risk management practices enable successful CMS implementation that realizes measurable benefits and impact.

Keywords: Content management systems (CMS), FileNet, Risk Management, Implementation challenges.

Introduction

Content management systems (CMS) have become a critical technology for organizations to manage their digital content and presence. CMS platforms like WordPress, Drupal, and Joomla empower users to create and publish content through intuitive web interfaces without needing technical expertise. This has fueled rapid adoption of CMS across businesses, government, nonprofits, education, and more.

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However, simply adopting an off-the-shelf CMS is not enough to achieve the promised benefits. The organizational changes imposed by new content technologies introduce a complex array of technological and human risks. Without concerted risk management, CMS initiatives frequently run into budget and timeline overruns, security breaches, disjointed workflows, poor content quality, and more (Hodgson, 2018).

This paper surveys the common risks surrounding CMS adoption and provides a guide to structured risk analysis and mitigation approaches. Managing CMS risks is a continuous process that requires clear communication, adaptable change management, and governance throughout the implementation lifecycle.

We first provide background on CMS and organizational change management. Next, a risk analysis framework is presented to identify, assess, and treat risks. Key risk areas are then explored, including security, integration, costs, workflows, governance, and user adoption. For each, we survey prevalent risks and proven mitigation strategies. Finally, overarching best practices are highlighted for managing risks during CMS adoption to realize benefits while minimizing disruptions across people, processes, and technology.

Background

CMS and organizational change

A content management system (CMS) is web-based software that organizations use to create, edit, organize, publish, and manage various types of digital content on websites (Lankes, 2016). CMS provides an intuitive interface and workflow for non-technical users to manage content without needing web programming expertise. Popular open-source CMS platforms include WordPress, Joomla, and Drupal, which can be customized for an organization's needs. CMS may also be procured from vendors as software-as-a-service (SaaS) solutions.

CMS adoption imposes both technological change in systems and tools as well as organizational change in processes, workflows, and staff roles and responsibilities. Even procuring an off-the-shelf CMS requires significant adjustments to integrate the platform into the existing content workflow and technology landscape. Successful implementation requires deliberately managing the people and process changes using established change management techniques (Hiatt & Creasey, 2012).

The risks that arise with CMS adoption stem from both the technological complexity and the deep organizational changes. Planning the move to CMS requires analyzing this multifaceted risk landscape and defining mitigation approaches for people, processes, and technology. Structured risk management must continue through the launch, adoption, and ongoing optimization of the CMS.

Risk Analysis Framework

Managing CMS implementation risks requires systematically identifying, analyzing, and treating risks across the project lifecycle. Risk analysis provides a proactive approach for uncovering risks and deciding mitigation actions. The three key steps in risk analysis are:

1. Risk Identification: Risks are identified by analyzing the CMS project plan, changes, and environment. Risks arise from the complex technology as well as changes to staff, processes, tools, and organizational dynamics.
2. Risk Analysis: Identified risks are rated based on their likelihood of occurrence and potential impact. This allows for prioritizing the highest risks for treatment.
3. Risk Treatment: Mitigation actions are defined for high-priority risks to reduce their likelihood or impact. Risks may be treated by risk avoidance, reduction, transfer, or acceptance.

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This risk analysis cycle should be continually performed across the stages of CMS adoption, from planning through launch and ongoing operations. The following sections highlight major risk areas during CMS adoption and proven mitigation strategies.

Key Risk Areas and Mitigation Strategies

CMS implementations present multifaceted risks that must be managed across dimensions of technology, process, and people. Key risk domains include:

Security: Vulnerabilities leading to exploits, breaches, and regulatory non-compliance

Integration: Platform alignment issues are causing disjointed workflows and duplicate systems.

Costs: Budget overruns from poor planning or scope creep post-launch

Workflows: Process disruption and confusion from changing roles, tools, and policies

Governance: lack of accountability and oversight resulting in inconsistent quality

User Adoption: Resistance and Change Fatigue Leading to Underutilized CMS

The following sections provide an overview of each risk area and proven mitigation strategies.

Security Risks and Mitigation

The networked nature of CMS poses significant cybersecurity risks (Mohan & Vaish, 2015). Like any complex software system, CMS code vulnerabilities can enable exploits such as injection attacks, denial-of-service attacks, and malware installation. Further risks arise from poor operational security, weak passwords, outdated software, and misconfigured platforms. High-profile breaches have resulted from exploiting known CMS vulnerabilities and insecure configurations (Jang-Jaccard & Nepal, 2014).

CMS security must follow cybersecurity best practices for software assurance and organizational security. Mitigation approaches include performing extensive pre-launch security reviews, penetration testing, and remediation to validate the platform's security before use. Follow secure software development lifecycles for any custom code development. Maintain strong CMS configuration hygiene to disable unused features, enforce the principle of least privilege, and apply security hardening guidelines provided by the platform developer community. Institute mandatory staff security training for password policies, phishing risks, social engineering, and other organizational risks surrounding CMS access.

Maintain patches, upgrades, and malware protection by promptly applying security fixes issued by the CMS developer community. Restrict and monitor administrative privileges. Develop incident response plans that cover investigation, recovery, and external reporting duties in the event of a successful breach. Adhere to applicable regulatory compliance requirements related to any sensitive data processed or stored within the CMS. By implementing multilayered technical protections and staff security practices, the risk of debilitating CMS breaches can be minimized.

Integration Risks and Mitigation

Adopting a new CMS introduces technology alignment risks around integrating the platform into the existing content workflow and IT landscape (Yu, 2016). Poorly planned integration can result in disconnected systems, manual workarounds, and data inconsistencies. For example, outdated legacy content may remain trapped in other systems, leading to a fragmented workflow. Tight coupling of the CMS to other systems may also create fragility and upgrade issues.

Avoiding these integration pitfalls requires advance planning and phased rollouts.

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Develop comprehensive integration roadmaps for connecting to existing content repositories, user authentication systems, marketing platforms, and other required enterprise systems. Where possible, maximize the use of CMS application programming interfaces (APIs) and content standards like Markdown to loosely couple the platform. Initially, limit the scope of CMS use to focus on high-value content processes. Legacy processes can be transitioned in stages based on measured priorities. Allocate resources for developing custom integrations, content migration scripts, and ongoing alignment maintenance between the CMS and connected systems. Institute strong governance of the architecture and integration points to prevent downstream system fragility or duplication. With deliberate systems integration planning, the disruption of adopting the CMS can be minimized while maximizing process interconnectivity.

Cost Risks and Mitigation

The shiny new CMS may carry unforeseen costs from inaccurate budget estimates, vendor overruns, change management needs, or inadequate support for the larger content workflow (Robertson, 2018). Without accounting for ongoing expenses beyond the initial platform procurement and launch, the CMS quickly becomes an unjustified expense.

Realistic cost projections and controlled spending enable the CMS to deliver lasting value.

Develop accurate multi-year cost estimates encompassing license and hosting fees, development and integration, content migration, maintenance, training, support staff, and enterprise integration needs. Include projected cost savings from decommissioning legacy systems. Institute spending oversight processes and get vendor commitments to cap cost overruns for initial development and ongoing enhancements. Scrutinize vendor quotes for unnecessary services. Start with a pilot phase focused on high-priority use cases to validate ROI before an expanded rollout. Plan budgets for ongoing platform support needs, including staffing, maintenance, upgrades, training, and integration with other modernized systems. The CMS must keep pace with evolving needs and platforms to avoid becoming outdated and incurring costly technical debt. Proactively budgeting for total lifecycle costs ensures the platform continues to deliver value.

Workflow Risks and Mitigation

The optimized workflows touted by CMS marketing often fail to materialize due to engrained legacy processes, staffing churn, and organizational inertia (Ellis & Van Belle, 2009). Moving from established processes to new, digitally driven ways of working poses adoption hurdles. Staff may cling to previous tools and policies during the transition. Without deliberate change management, workflows become fractured between outdated and modernized approaches.

The risks of disjointed workflows can be mitigated through communication, training, and iterative process refinement. Document existing content workflows and openly communicate changes well before CMS launches. Engage staff input to surface issues early.

Provide hands-on training for all staff roles impacted by the CMS transition. Maintain ongoing training programs and new user orientation to accommodate turnover. Incentivize the use of streamlined CMS workflows through leadership messaging and performance measurement. Monitor for process workarounds and gaps between actual and intended workflows. Refine blocked points through root cause analysis and iterative process changes.

With sufficient communication, training, and optimization, the CMS can transform workflows over time rather than simply digitizing current practices.

Governance Risks and Mitigation

Poor governance often plagues CMS adoption by allowing inconsistent use, a lack of accountability, and content gaps to emerge (Nah & Nam, 2012). Governance risks include unclear content ownership, outdated or redundant posts, and publishing without oversight. This results in diminished trust and utilization of the CMS.

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Effective CMS governance imposes standards while allowing necessary flexibility.

Institute a governance framework outlining system policies, content lifecycles, permissions, monitoring procedures, and compliance. Maintain a policy handbook accessible to all users.

Develop content strategies for each information domain, including owners, refresh cadence, formats, taxonomy, and metrics. Maintain inventories of current content assets. Automate governance controls in the CMS, such as content expiration, assigned owners, access restrictions, and publishing workflows. Reports and audit logs should monitor compliance. Appoint a cross-functional governance board with representation from impacted groups. Evaluate proposed policy changes through a structured exception process. Provide content creation standards and guidelines while allowing flexibility where required. Light-touch governance delivers consistency while enabling experimentation. By instilling the right governance approach, both decentralized content creation and cohesive system utilization can be realized.

User Adoption Risks and Mitigation

Failure to achieve user adoption is the downfall of many technology initiatives once the initial launch hype diminishes (Chow et al., 2014). Users may resist new systems due to change fatigue, training gaps, or ingrained practices. Adoption often stagnates or reverses after launch without deliberate engagement. User objections and issues must be monitored and addressed to sustain CMS utilization.

Risks of stagnant user adoption can be mitigated through participatory design, training reinforcement, and targeted communications.

Involve representative users extensively in CMS planning, design, and testing to incorporate their perspective and values into the system. Develop and consistently update training programs and user support channels to lower barriers during onboarding and through ongoing adoption. Analyze system usage metrics to identify adoption gaps. Target underused features or groups with focused communications and training. Solicit user feedback on an ongoing basis through surveys, meetings, and monitoring channels. Enable easy issue reporting. Respond rapidly to concerns and continually refine adoption practices. Proactive and responsive promotion of user engagement is essential, even after initial training, to achieving lasting CMS adoption.

In summary, a wide spectrum of technological and organizational risks arise with CMS implementation. By following structured risk management practices, organizations can surface and mitigate these risks to enable smooth adoption. The next section presents overarching best practices for managing CMS risks based on the areas highlighted.

Best Practices for Managing CMS Risks

The multifaceted risks surrounding CMS adoption necessitate holistic risk management across the implementation lifecycle. Based on the risk analysis above, best practices for CMS risk mitigation include:

Perform initial risk analysis during CMS planning and revisit regularly to systematically uncover likely issues early. Develop clear, comprehensive, and realistic requirements covering functionality, integrations, migration, security, governance, and reporting needs. Institute strong system and architectural governance over the CMS and connections to other enterprise systems. Follow established secure software development practices for any customization, including code reviews, testing, and security hardening.

Create change management plans addressing training, communications, and user engagement at each project stage. Allocate resources for thorough integration with existing systems. Develop roadmaps for the phased transition of legacy processes. Develop multi-year cost estimates encompassing the complete lifecycle, from

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procurement through ongoing operations and support. Provide extensive initial and ongoing training and support for all user roles impacted by CMS adoption.

Plan a pilot phase prior to a full rollout to validate capabilities and workflows. Continuously monitor system adoption, issues, and risks post-launch to refine mitigation actions based on measured needs.

The keys are thorough advanced analysis, multilayered mitigation plans, and continuous engagement across the project lifecycle. Ongoing risk management is essential even beyond launch as risks evolve alongside platform maturity and organizational change. With concerted mitigation efforts aligned to evolving risks, organizations can tap the full potential of CMS while avoiding pitfalls. The CMS transitions from a costly technology project to an integral driver of digital capabilities and content-driven workflows.

Conclusion

Content management systems deliver immense potential benefits but also pose considerable technological and organizational risks. From compromised security to inconsistent workflows, CMS changes impact nearly all system users and stakeholders. Structured risk analysis provides a proactive approach to identifying and treating risks across the CMS project lifecycle.

Key risk areas span integration, costs, workflows, governance, and user adoption, in addition to core security protections. For each, industry best practices help avoid common pitfalls through readiness assessments, change management, training, piloting, and continuous system monitoring. Ongoing communication and realigned workflows enable users to take advantage of CMS capabilities over time.

Strong oversight and governance are essential to manage risks as the CMS naturally evolves with the organization's digital presence and processes. With vigilant risk analysis and mitigation, CMS can be smoothly implemented to improve content quality, automation, and cross-team collaboration. The multifaceted risks introduced by new technologies and ways of working are unavoidable. But following structured risk management practices, organizations can confidently embark on CMS adoption initiatives knowing they are equipped to realize the benefits while minimizing disruptions.

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