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ZINE DOT AI

Monthly Dossier from Nexval.AI's Research Lab

Can AI Help Mortgage Teams in a Natural Disaster?

A Closer Look at AI in Maintaining Mortgage Operations During Disasters

August 14, 2025

Upcoming Edition: September 16, 2025

From the Editor's Desk

If you read our last edition on **Explainable AI**, you'll know we've been asking not just what AI can do - but how well it actually works when real-world complexity sets in.

This month, we went a step further.

Here's a number worth pausing on: **90 federally declared disasters in 2024.** That's almost double the 30-year average. And behind each declaration is a chain reaction that mortgage teams feel almost immediately - borrower contact delays, missed SLAs, compromised data access, infrastructure outages.

So we asked: **What happens to mortgage operations in the first few hours and days after a natural disaster?**

The reality is, disruption doesn't wait. Properties are damaged. Communication breaks down. Compliance deadlines don't pause. And the teams responding are often doing so with limited tools and even less time.

In this edition, we focus on exactly that:–

- How AI models flag and route borrower requests under pressure
- What parts of the process can be automated - and which still need a human decision
- Why some AI workflows stall during outages, and how to design around it
- And what business continuity planning really looks like when a storm, fire, or flood hits

The goal isn't to solve every problem with AI. It's to understand which tools help when time and clarity are in short supply - and how to use them well.

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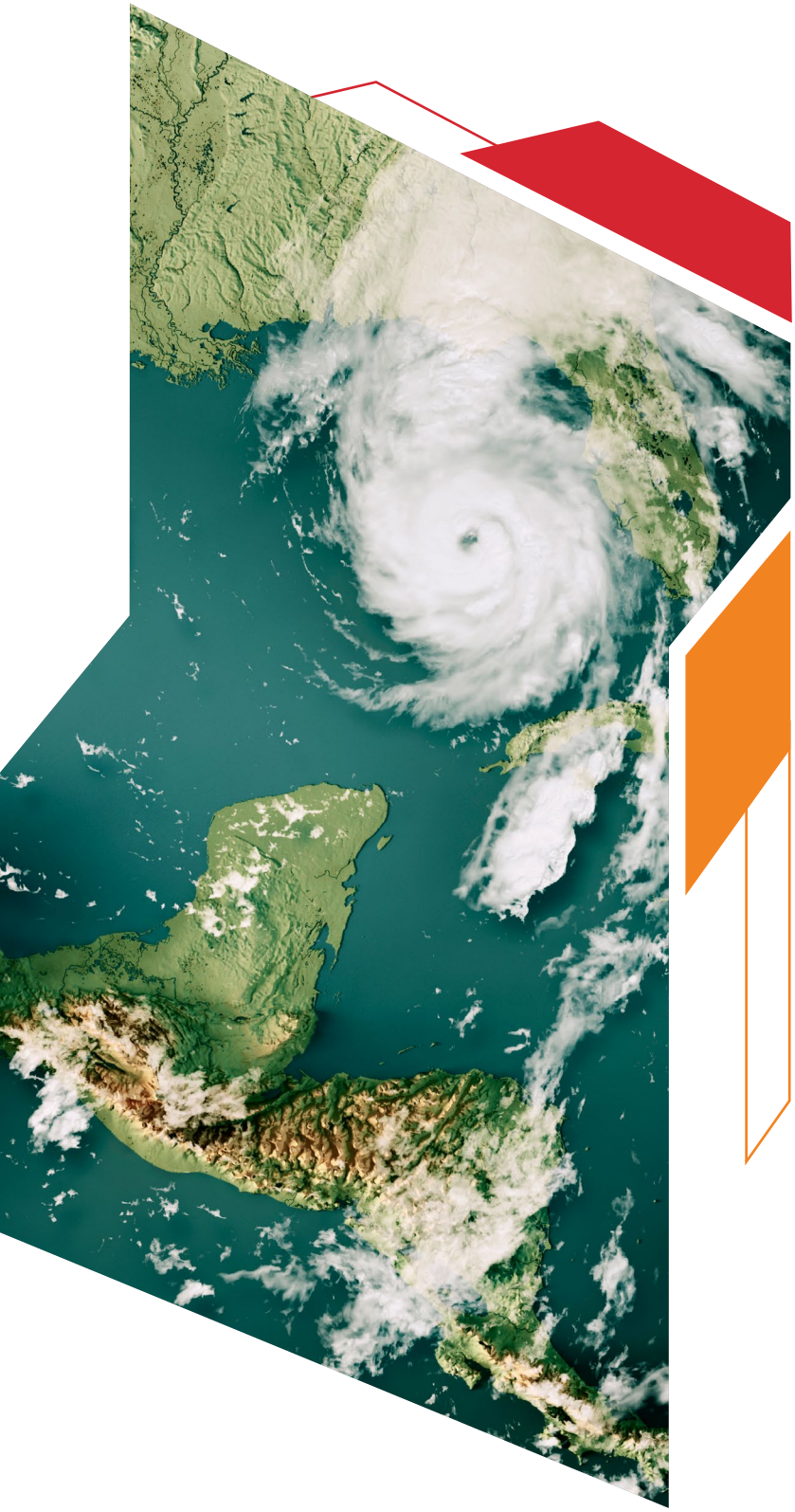


What's Inside?

Welcome to the Nexval.ai's Zine Dot AI

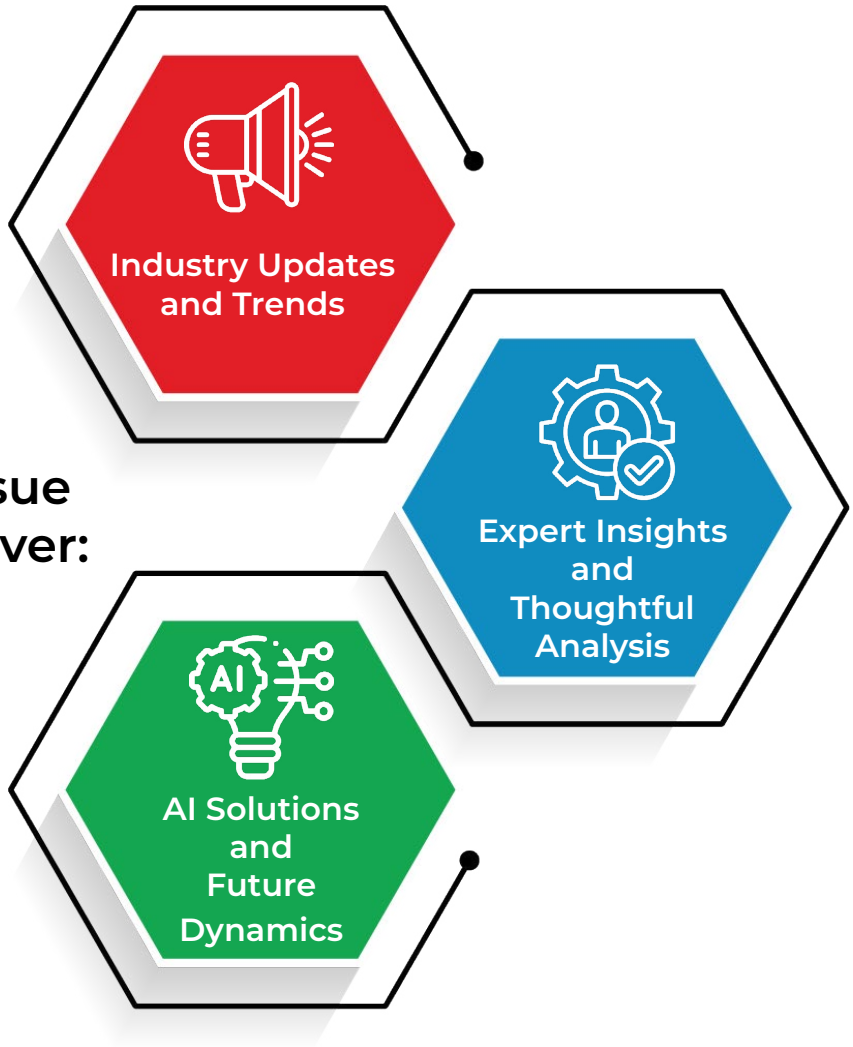
What is Zine Dot AI?

At Nexval.ai, we envisioned a future where mortgages were effortless. Inspired by our AI, we crafted a name that harmonized simplicity with innovative technology. Thus, Zine Dot AI was born - a pioneering platform that transforms the mortgage journey, harnessing the power of advanced AI to make the complex, simple

How will Zine Dot AI make a difference for you?

This dossier is your roadmap to mortgage industry leadership, providing expert insights and analysis to ensure you're always at the forefront of emerging trends and opportunities.

Each issue will deliver:



Ready to make smarter decisions, stay ahead, and seize new opportunities? Let's dive in together!

AI Spotlight:

What Mortgage Teams Can Automate in the First 72 Hours After a Disaster

The U.S. mortgage market operates in a country where natural disasters are seasonal, frequent, and unavoidable. The recent flash floods in Texas and wildfires across the West are reminders that even the most prepared operations can face disruptions without warning.

In the mortgage industry, the first **72 hours after a disaster are critical** - not just for borrowers but for the integrity of the servicing, origination, and title pipelines. This window determines whether you're reacting or proactively stabilizing the business. It's the period when volume spikes, borrowers reach out, and regulators begin to watch.

The question is: **what** can **mortgage teams automate right now to get ahead of mounting backlog, borrower confusion, and operational delays?**

1. Borrower Triage & Outreach
AI systems can automatically flag at-risk loans based on property zip codes, FEMA alerts, and weather feeds.Once identified, automated systems can:

- Prioritize loans by exposure severity or location
- Trigger outbound communication workflows (SMS, email, IVR) to affected borrowers
- Flag hardship signals for early assistance routing

2. Document Intake & Processing
Borrowers will submit forbearance requests, insurance claims, hardship affidavits, and more. AI can:

- Prioritize loans by exposure severity or location
- Validate completeness using predefined templates or required field rules
- Route to relevant case folders in the LOS or servicing platform

3. Damage Detection from Property Images
Preservation teams or homeowners may upload photos post-event. With computer vision models:

- AI can detect flood, wind, or fire damage in images with timestamp validation
- Support early claims decisioning and property condition verification without waiting for full inspection reports

4. Title Status Checks for At-Risk Loans
In originations or refinances already underway, automated title systems can:

- Re-check lien status or pending encumbrances for affected regions
- Flag title exceptions that may delay closing
- Auto-route urgent files for manual review

5. Operational Continuity - Routing Work to Offshore or Available Staff
AI-driven task managers can shift workload to teams or BCP locations with available capacity. This includes:

- Auto-routing of queues based on availability and SLA urgency
- Time zone-aware distribution to maintain 24/7 coverage where possible

Before Manual Work Resumes Fully, AI Can Keep Things Moving
The first 72 hours aren't about fixing everything - they're about keeping essential processes moving. With the right AI models already in place, mortgage teams can avoid falling behind on urgent borrower requests, get a faster handle on property status, and keep decision-making from stalling when staff or systems are impacted.

At Nexval.ai, we're helping mortgage teams automate early-stage response with tools like PreservAI for visual property risk, DocuChief for document intake, and AI-assisted routing across offshore BCP locations. If your disaster response still depends entirely on manual work, there may be places to improve - without adding headcount.

AI in Action:
AI in Loss Mitigation and Default During Disasters

When a disaster hits - whether it's a flood, wildfire, or hurricane - borrowers often face more urgent problems than contacting their mortgage servicer. Communication lines break down, documents go missing, and payments get delayed not by neglect but by necessity. For servicers, this creates a backlog of uncertainty: who actually needs help, and how soon?
AI can support faster, more focused action by surfacing at-risk borrowers automatically - flagging those who are most likely impacted.

What Can Be Automated?
AI can take on the early, repetitive tasks - triaging accounts, flagging high-risk profiles, and routing files to the right teams - so humans can focus where they're needed most.

1. Geo-Matched Loan Flagging
AI models pull data from FEMA declarations, NOAA alerts, and flood zone maps, cross-referencing it with your servicing portfolio.

- ✅ Within minutes, servicers get a real-time snapshot of which loans fall inside an affected area.

2. Early Signs of Distress
Instead of waiting for delinquency, AI monitors behavioral shifts - like unusual payment delays or skipped escrows - that often follow a local disaster.

- ✅ Especially when combined with location data, this helps servicers spot hardship patterns early.

3. Risk Scoring and Routing
Each loan is scored based on risk factors such as:

- Location severity
- Property type and occupancy
- Payment history
- Prior loss mit engagement
- Insurance coverage

- ✅ High-risk files are automatically routed to the appropriate teams for quicker review.

4. Document Prep Triggers
Once a loan is flagged, the system can generate key documents - pre-filled forbearance packets, insurance claim forms, or FEMA assistance requests - ready for servicer review.

- ✅ That means less time spent chasing paperwork and more time helping borrowers.

Decisions That Need Human Review?
While AI helps identify who might need assistance, people still play a critical role in:

- Reviewing hardship narratives
- Verifying data
- Making judgment-based calls
- Guiding borrowers through their options

AI simply helps teams act faster, with better context.

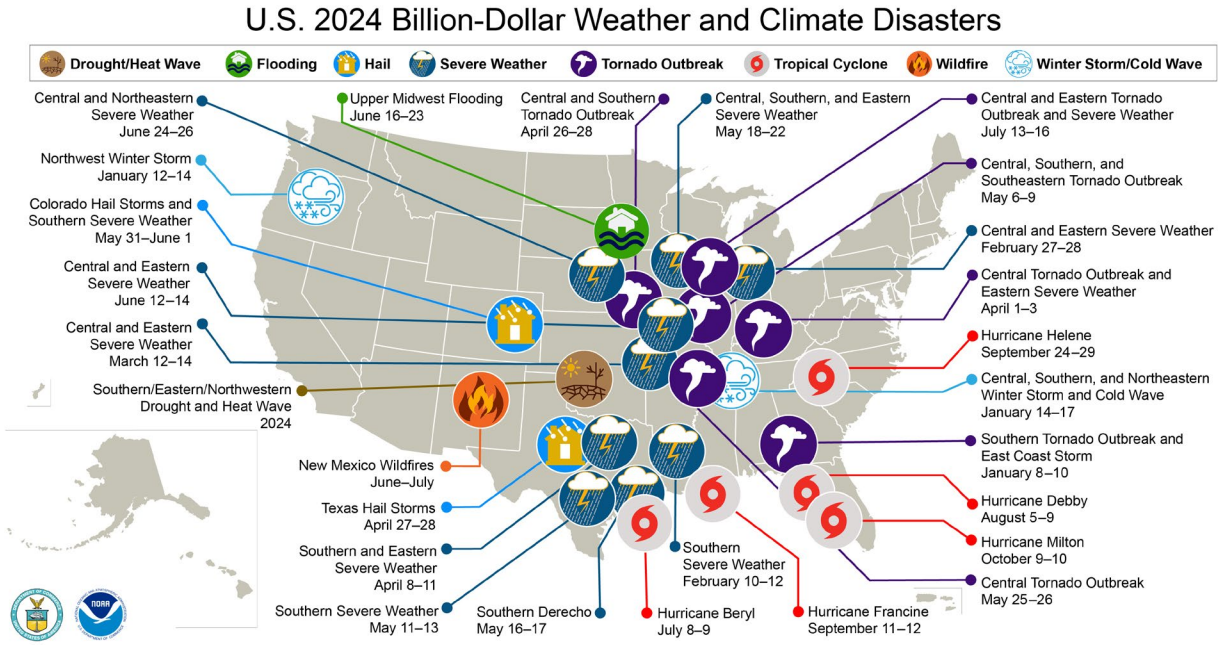
***At Nexval.ai, we deploy** loss mitigation AI models **that integrate directly with your servicing systems.** Combined with our offshore-trained teams and case-ready workflows, we help reduce detection lag, prioritize better, and maintain operational continuity - especially when disaster strikes.*

*Want to see how this looks in a live environment? Let's **schedule a walkthrough.***

How Useful Is a BCP During a Natural Disaster?

In 2024, the United States recorded **90 major disaster declarations,** nearly **double the 30-year average**, according to FEMA. That averages out to **one major disaster every four days.**

An estimated 137 million people, 41% of the U.S. population, lived in counties affected by a major disaster or emergency last year. From wildfires in the West to hurricanes in the Gulf and flash floods in the Midwest, these events disrupted not only communities but also the mortgage operations tied to them.



*This map denotes the approximate location for each of the **27 separate billion-dollar weather and climate disasters that impacted the United States in 2024.***

So the question is no longer if your business continuity plan (BCP) will be tested - but whether it's designed for what today's disasters actually look like.

Common Fallout Mortgage Teams Face During Natural Disasters:

- **Office closures** due to evacuation orders or property damage
- **Power outages** that affect servers, local desktops, and physical files
- **Communication delays** caused by network issues or displaced staff
- **Missed SLAs,** especially around borrower outreach and investor reporting
- **Loss of investor trust** when operational gaps go unexplained

Why Most BCPs Fall Short

Generic BCPs often rely on assumptions: alternate office spaces, local backups, or staggered shift coverage. But in large-scale weather events, the local team itself may be out of reach. Even cloud access doesn't help if your response workflows still depend on manual approvals or legacy systems.

What Mortgage Ops Actually Need

A practical BCP for disaster scenarios needs to account for both infrastructure continuity and operational logic:

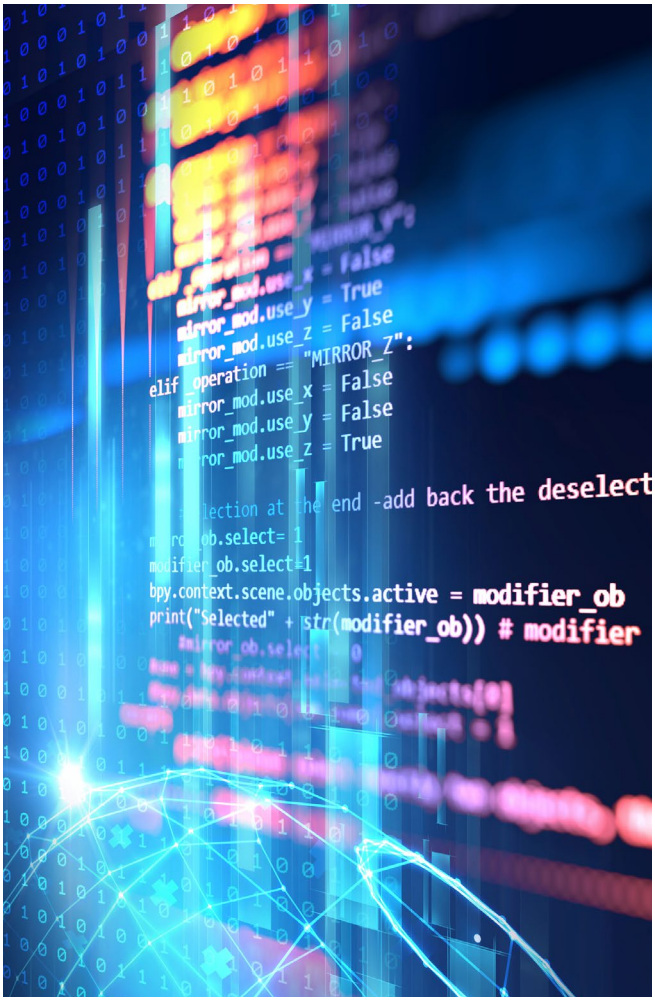
- **Geographic redundancy:** Not just cloud-based systems, but trained offshore teams with secure access to your processes

- **Process continuity:** SOPs mapped to crisis workflows, especially around loss mitigation, default servicing, and borrower communications
- **Data integrity:** Secure systems with SOC 2 / ISO 27001 compliance to ensure zero data loss during infrastructure shifts
- **Seamless Execution:** Pre-activated runbooks that go beyond documentation and into live execution

A BCP document isn't enough if your borrowers are calling and no one can answer. What matters is whether your operations can move when your team can't.

Nexval.ai supports continuity with **pre-trained offshore teams, secure U.S.-cloud access**, *and certified environments* ***(SOC 2, ISO 27001)***. *Our clients keep their operations moving - even when their local teams are offline.*

If you're re-evaluating your BCP with natural disasters in mind, ***we can help.***



Tech Brief

Building AI Workflows That Survive Infrastructure Disruptions

AI in mortgage servicing is only as reliable as the infrastructure it runs on. And when a natural disaster hits critical systems can go dark just when they're needed most.

It is important to ensure that AI models remain operable when systems are under stress. Business continuity is often considered a separate concern from AI design, but the two are closely connected and need to be treated as such when building workflows meant to support disaster-prone markets.

Here's what it takes to make AI workflows resilient in the face of real-world disruption:

- **Decouple Compute from Local Infrastructure**
  Cloud-based AI services should not depend on in-office hardware or locally hosted applications. During office shutdowns or evacuations, teams must be able to trigger AI processes - from borrower triage to claim classification - without needing access to on-premise tools.
  Best Practice: Implement geographically distributed access for cloud workloads tied to servicing operations. Ensure decision engines, routing logic, and data ingestion layers are not bound to a single zone or provider.

- **Use Stateless Workflow Design**
  Stateful processes can become brittle when disrupted mid-cycle. If a payment exception or hardship application is mid-review when a server or application fails, data recovery becomes more complex.
  Best Practice: Build AI workflows as stateless microservices or containers. Store session progress externally so work can resume seamlessly, even if the underlying application is restarted on a new server or region.

- **Deploy Dual-Region OCR & Classification Services**
  Many loss mitigation and property workflows depend on document classification or OCR. If this function stalls due to infrastructure outages, downstream decisioning is delayed.
  Best Practice: Ensure your OCR and classification workflows can continue processing via alternate secure locations in the event of a regional disruption - whether onshore or offshore. This prevents stoppages in processing incoming insurance claims, borrower requests, or field reports.

- **Plan for Remote Human Handoff** AI can go a long way, but disasters often require human intervention for exceptions or compliance checks. During a regional outage, it's critical to have routing logic that escalates high-risk flags to offshore or alternate locations with secure access.
  Best Practice: Build routing logic directly into your AI outputs. If a disaster zip code is flagged or a document score crosses a risk threshold, alerts should route to redundant teams with full case data and historical context.

- **Monitor Workflow-Level SLAs**
  Many organizations track model-level performance (e.g., prediction accuracy), but overlook operational SLAs tied to AI processes - like time-to-first-response after a forbearance request is flagged by AI.
  Best Practice: Build SLA monitoring not just at the model level, but at the workflow level. During disasters, SLA degradation should automatically escalate cases or trigger system load balancing.
  AI won't be useful during a climate event if the workflow it supports can't stay operational.

At Nexval.ai, we design AI-driven processes with built-in continuity - supported by secure offshore teams, cloud-based access, and redundant systems
If you're evaluating the reliability of your **AI workflows in a disaster scenario**, Nexval.ai's tech team is happy to walk you through design considerations that support continuity.

Industry Report Digest

- Following a Presidential disaster declaration in early July, the U.S. Department of Housing and Urban Development (HUD) announced a **90-day foreclosure moratorium** on single-family mortgages insured by the Federal Housing Administration (FHA) in Kerr County, Texas. This action was taken in response to ongoing severe storms and flooding that devastated the area. The moratorium, which went into effect on July 2, 2025, temporarily halts all foreclosure actions for the more than 900 affected mortgage holders. Additionally, HUD is providing resources such as the FHA Section 203(h) loan for homeowners whose properties were destroyed, and the FHA Section 203(k) loan for those seeking to finance repairs.

- According to a report from the Mortgage Bankers Association (MBA), **mortgage applications saw a 3.1% increase** for the week ending August 1. The rise in applications was attributed to mortgage rates falling for the third consecutive week, with the average 30-year fixed rate dropping to 6.77%. Both purchase and refinance applications saw a boost, with refinance activity reaching its highest level in four weeks. The increase in purchase applications was supported by a growing inventory of homes. Following these changes, the refinance share of total activity grew to 41.5%.

- In a recent announcement, global digital transformation company GFT launched Wynxx, a new AI coding assistant designed to **help financial firms modernize their operations.** The tool, now available in the U.S. and Canada, aims to cut AI development timelines by as much as 95% by streamlining complex processes like migrating legacy systems to the cloud. GFT noted that the solution also automates code documentation, potentially saving up to 90% of time on that task. The launch is part of GFT's larger strategy to become a "fully AI-centric" company by 2025 and directly addresses the challenges financial institutions face in adopting new technology while maintaining quality and reducing costs.

- A new bill aimed at protecting mortgage applicants from unwanted solicitations has been passed by both the House and Senate and now heads to the President's desk to be signed into law. **The Homebuyers Privacy Protection Act** is designed to restrict credit reporting agencies from selling consumer contact information, a practice known as "trigger leads." These leads often result in a deluge of unsolicited offers that can cause confusion and increase the risk of fraud for prospective homebuyers. The legislation will require consumers to provide explicit permission for their information to be sold, with exceptions only for their current mortgage servicer or an existing depository institution. The new law is set to become effective 180 days after its enactment.

- In the absence of a comprehensive federal framework, a patchwork of **state-level AI regulations** is emerging to address issues of transparency and bias in areas like use of AI in government, health care, facial recognition, and generative AI. However, this could be challenged by a new **federal AI Action Plan** that promotes a less restrictive, "try-first" approach to secure U.S. dominance in AI and may discourage state-level rules by linking federal funding to what it defines as "burdensome" regulations. For the mortgage industry, this dynamic is significant; while a lack of regulatory clarity could complicate AI implementation across states, a unified and less restrictive federal stance would likely be seen as a more favorable environment for adopting AI in critical areas like underwriting and fraud detection.

AI Across Industries

Duke Energy's AI for Storm Recovery

Florida saw back-to-back hurricanes in the fall of 2024. For most utilities, that means days of widespread outages and slow recovery. But Duke Energy's power grid had a different kind of response: it rerouted itself.

At the heart of this is Duke's **self-healing grid** - a network of AI-driven systems that can detect an outage, isolate the fault, and automatically reroute electricity through alternate paths. In real terms, this meant 300,000 fewer outages during Hurricanes Helene and Milton, and over 300 million minutes of restored uptime across affected regions.

What Makes the Grid "Self-Healing":

- **Real-time routing logic:** When an outage is detected, AI decides how to reroute power - similar to how a GPS avoids roadblocks.
- **Localized sensors:** Installed along lines and substations, these continuously monitor power quality and grid status.
- **Remote controls:** AI acts through automated switches, breakers, and regulators to limit how many customers are impacted.
- **Predictive maintenance:** Data from sensors helps identify weak points in infrastructure - so teams can intervene before outages occur.

Duke's **Storm Protection Plan** includes AI-powered decisions around vegetation management, pole hardening, and strategic undergrounding of cables.

In total, over 40,000 poles have been reinforced and nearly half of Florida's primary lines are now underground - choices informed in part by data-fed models that predict high-risk zones.

The mortgage industry may not manage power grids, but it faces similar risks during climate events. Duke Energy's model highlights how AI can support localized triage, introduce built-in redundancy, and enable early intervention - all of which are just as relevant for mortgage operations under pressure.

Upcoming Events to Add to Your Calendar!

- **I. Texas Mortgage Roundup | September 4, 2025 | Doubletree By Hilton | Richardson, TX**

  In today's shifting mortgage market, origination professionals face the constant challenge of adapting their sales and marketing to stay competitive. To ensure your pipeline remains full and your business stays profitable and efficient, it's essential to have the right strategies and tools. The **Texas Mortgage Roundup** brings together top industry leaders to provide a focused forum specifically designed for mortgage origination professionals. It offers a chance to gain new insights, acquire actionable methods, and get the guidance needed to succeed in a demanding environment.

- **II. California Mortgage Expo | September 10, 2025 | DoubleTree by Hilton | Livermore, CA**

  The **California Mortgage Expo** will provide a full day of insights for mortgage professionals. The event's agenda covers crucial topics for today's market, including an economic overview and strategies for Non-Agency solutions. Attendees will also get a look inside how a large lender uses AI for underwriting and processing, offering a glimpse into the future of mortgage operations. Additionally, the expo offers the opportunity to fulfill NMLS license renewal requirements with an optional 8-hour continuing education course.

- **III. National Mortgage News, Digital Mortgage Conference | September 16-17, 2025 | Loews Coronado Bay Resort | San Diego, CA**

  The **Digital Mortgage Conference** brings together top executives and fintech leaders to share insights on how to adapt to key challenges like elevated interest rates and cybersecurity threats. The conference will explore how technologies, from AI-driven personalization to integrated mortgage platforms, are changing how loans are created and serviced. This is an opportunity to learn how these innovations can increase efficiency, improve transparency, and ultimately help clients build real estate wealth.

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The Big Picture

At Nexval.ai, we leverage AI to deliver customized solutions tailored to your industry's unique needs.

We're not just about technology **- we're about partnership.** We collaborate with your team to understand your processes and goals, ensuring a seamless transition and ongoing optimization.

Partner with us as **Affiliates** to bring AI-driven automation and cloud solutions to servicers-reducing costs, improving compliance, enhancing borrower experiences, and creating new revenue opportunities for your business.

Our expertise spans mortgage and financial services, with a focus on automation, IT, BPO, customer service, risk management, and AI-driven process optimization.

Let's transform your business with intelligent automation and data-driven strategies.

Innovation meets insight: Curated mortgage intelligence for an industry in constant motion. **Let's mortgage-better with AI.**

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