COVID-19
How Technology is Helping Nonprofits Achieve Greater Impact

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With You Today

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HOW TECHNOLOGY IS HELPING NONPROFITS ACHIEVE GREATER IMPACT
What are organizations doing regarding digital transformation?
Charting the Path Forward

BDO’S 2020 NONPROFIT STANDARDS BENCHMARKING SURVEY

Now more than ever, we need our nonprofit organizations to be viable and continue their critical work. To help arm you with information to stay sustainable, we polled 200 nonprofit leaders on critical issues and benchmarks in our annual Nonprofit Standards survey.

Here are the key trends we found:
Poll: What technology is your organization planning on investing in this year?

1. Management platforms or software
2. Data analytics
3. Automation
4. Artificial intelligence
5. Internet of things
6. Virtual or augmented reality
When asked what technological investments they’re prioritizing, nonprofits favored management platforms or software, including those that assist with tasks like fundraising or social media; data analytics; and automation.
Technology has been a critical element in the nonprofit response to COVID-19. It’s helped enable both remote work and program delivery. But, lack of adequate tech may have limited some organizations, and all could be vulnerable to cyber risks.

**BDO’S 2020 NONPROFIT STANDARDS BENCHMARKING SURVEY**

**USING TECHNOLOGY TO ADAPT TO CHANGE**

**TECHNOLOGY LIMITATIONS**
Many organizations believe that technology limited their ability to respond to coronavirus.

- **Did technology limitations restrict your ability to respond to COVID-19?**
  - 54% No
  - 46% Yes

- **7%** Yes, Significantly

- **39%** Yes, Somewhat

- **64%** of organizations are planning to invest in new technologies this year

- **61%** Improve operational efficiency
- **29%** Improve the delivery of programs and services

- **51%** of nonprofits say cybersecurity is a high/moderate challenge for boards

**BDO**
How can organizations use automation and advanced technology?
What is It?

ROBOTIC PROCESS AUTOMATION

RPA helps automate rules-based, repetitive tasks. A “bot” can mimic a humans interactions across different systems, platforms, and processes.

MACHINE LEARNING

Machine-learning sifts through large populations of data to find hidden patterns and information without being told exactly what to do. It is most often “trained” instead of using rules-based programming.
Intelligent Automation

- Increased speed, as processes can be developed at unprecedented speeds.
- Increased agility from reduced overhead and more flexible business resources.
- Comprehensive insights from improved efficiency by digitizing and auditing process data.
- Employee experience is increased through staff productivity and reduced attrition.
- Higher quality services, better accuracy, and better customer service.
- Greater compliance, since business processes can be set to operate in accordance with the necessary regulations and standards.
- Reduced costs; manual or repetitive tasks are completed by RPA software.
Poll: Are you using automation?

1. No, we do everything in Excel.
2. We use some tools and macros to help analyze the data, but our primary tool is still Excel.
3. We are exploring Robotic Process Automation tools and options.
4. We have implemented bots.
5. We have a lot of bots.
6. I am a bot.
Considerations

- What about your job sucks?
- Are you on technology forward?
- How many people are keying data within the organization?
- Are you having to cover back office operations with fewer staff?
- Where’s the paper?
- Who has the 17-tab spreadsheet that everyone is afraid to touch?
- Do you have multiple systems where you have to pull data together?
- Do you have the process written down?
- Is it taking more than 5 hours per month?
- Can an intern do it?
## Intelligent Automation Examples

<table>
<thead>
<tr>
<th>Category</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HR</strong></td>
<td>New employee onboarding</td>
</tr>
<tr>
<td><strong>Finance/Accounting</strong></td>
<td>AR tracking to ensure On time payment</td>
</tr>
<tr>
<td><strong>IT</strong></td>
<td>New user setup</td>
</tr>
<tr>
<td><strong>Sales/Marketing</strong></td>
<td>Sales campaign email management</td>
</tr>
<tr>
<td><strong>Customer Service</strong></td>
<td>Order processing</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>Federal and local COVID-19 regulatory compliance documentation</td>
</tr>
</tbody>
</table>
Show Me

HOW TECHNOLOGY IS HELPING NONPROFITS ACHIEVE GREATER IMPACT
Automation During COVID-19

Accelerate patient enrollment for COVID testing
As diagnostic labs, drive-through testing centers, and hospitals test hundreds of Americans per day for COVID-19, there is a desperate need to speed up the process of looking up each patient in the site’s electronic medical records, adding the patient to the system, sharing this information with the CDC, and reporting back to the patient. Often sick people are standing in line 6 feet apart with fevers and respiratory issues for many hours—compromising their own health and those around them who may or may not have the virus. Attended bots can save 8-9 minutes per patient and avoid manual data entry errors.

Enable rapid hiring
From Amazon warehouses to delivery services and hospitals in COVID-19 hotspots, some industries need to increase their workforce at record speed to meet demand. Bot-powered solutions can help government entities and companies alike conduct background checks and evaluate employee eligibility, freeing up Human Resources staff to focus on the subsequent stages of employee onboarding.

Process unprecedented product demand
From grocery stores, to meal kit companies, and personal protective equipment manufacturers, there are segments of the economy are that experiencing product demand unlike they have ever seen before. By using unattended bots to process these orders, overextended companies already coping with diminished workforces can redeploy critical headcount toward fulfilling the high volume of orders filed. These companies can thus capture maximum revenue while meeting the societal need to reduce loss of life from COVID-19.
What about your job sucks?
Poll: What about your job sucks?

1. I pull data from multiple systems a lot.
2. I key in information from PDFs or paper.
3. I am constantly cleaning/updating data in Excel.
4. There is no one source of truth.
5. I deal with multiple reports that none really have what I need so I spend time pulling them together into what I do need.
6. We don’t have the technology foundation to get the data we need to make better decisions.
7. Nothing. Life is awesome.
Common Sucky Tasks

- Bank reconciliations
- Approval emails
- PowerPoint deck creation & recreation and recreation
- Pulling data from multiple systems
- Extracting invoices/reports from vendor portals
- Invoice data entry
- Running tax data extractions
- Pulling invoices for auditors
- Calculating payroll taxes
- Reviewing sales and use tax
- Maintaining information like a bank account listing or approvals matrix
- Segregation of duties/access review
Approach

**PHASE I**
Project Initiation
- Information gathering
  - Evaluate present system through interviews and brainstorming sessions.
  - Document process and data flow.
  - Identify and document problem areas and concerns.
  - Create project summary memo.
  - Prepare ROI support.

**PHASE II**
Systems Design
- Design overview document noting summary level understanding and process flow of proposed solution.
- Create specs/requirements document considering the following:
  - Proof of Concept (POC)
  - Technology
  - Resources
  - Testing
  - Deployment

**PHASE III**
Development
- Create database to host all data needed for the solution.
- Create data source connections.
- Identify audit/transaction logs that can be generated.
- Obtain any libraries and/or components needed for the solution.
- Create code.
- Test/debug code in sandbox environment.
- Confirm deliverable/results are accurate.
- Create notifications to ensure bot runs as expected.
- Consider need for additional monitoring.
- Ensure formatting/documentation of code is appropriate.

**PHASE IV**
Implementation
- Set up meeting with client IT team to discuss deployment.
- Deploy in test environment.
- Test implementation.
- Reconfigure/retest.
- Review security/privacy/access.
- Deploy in production environment.
- Create training documentation.
- Conduct training sessions with users.

**PHASE V**
Follow-up
- Summarize ROI achieved.
- Post-implementation meeting and assessment.
- Identify additional areas for RPA based on initial successes.
<table>
<thead>
<tr>
<th>STAGE</th>
<th>ACTIVITIES</th>
<th>CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>► Obtain an understanding of the processes where RPA is being used ◄ Create an audit plan</td>
<td>► Does the risk and control matrix need to be updated for RPA risks and controls?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>► Have IT auditors been involved in the process?</td>
</tr>
<tr>
<td>Design</td>
<td>► Obtain an understanding of the in scope processes and their interaction with IT ◄ Identify risks associated with processes in scope ◄ Identify the controls associated with the processes in scope ◄ Access the design of the controls ◄ Identify the design gaps currently found in the process/controls</td>
<td>► Have new risks for IT been brought into scope?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>► Have interfaces been considered?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>► Do ITGCs that are currently in place need to be augmented for additional risks?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>► Have IPE requirements been considered due to the change in controls?</td>
</tr>
<tr>
<td>Operating Effectiveness</td>
<td>► Perform testing of operating effectiveness over controls</td>
<td>► Should controls testing be decreased/increased?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>► Are there monitoring controls in place?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>► Has the testing methodology changed?</td>
</tr>
<tr>
<td>Reporting</td>
<td>► Develop audit report detailing observations, recommendations, and management’s action plan</td>
<td>► Have changes to design, risk and control matrix, roles, training/education, and technology been addressed</td>
</tr>
</tbody>
</table>
Give me some examples.
HOW TECHNOLOGY IS HELPING NONPROFITS ACHIEVE GREATER IMPACT
Investigation

6,000 Vendors Limited by:
- Location of interest
- Vendor spend over $50,000

160 Vendors to Review
Limited by:
- Specific user time of employment
- Round dollar amounts
- 11 Vendors to Review
Investigation

$350,000 Fraud 2010-2015
### Vendor Validation

<table>
<thead>
<tr>
<th>Phone Number</th>
<th>Status</th>
<th>Country</th>
<th>City</th>
<th>Carrier</th>
<th>Phone Type</th>
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<tbody>
<tr>
<td>+17819992808</td>
<td>Valid</td>
<td>United States</td>
<td>Lexington</td>
<td>Verizon Wireless</td>
<td>MOBILE</td>
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<tr>
<td>+16822488242</td>
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<td>United States</td>
<td>Arlington</td>
<td>T-Mobile USA, Inc.</td>
<td>MOBILE</td>
</tr>
<tr>
<td>+199999999999</td>
<td>Invalid</td>
<td>United States</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>+17324851034</td>
<td>Valid</td>
<td>United States</td>
<td>New Brunswick</td>
<td>T-Mobile USA, Inc.</td>
<td>MOBILE</td>
</tr>
<tr>
<td>+12233445566</td>
<td>Invalid</td>
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<td></td>
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<tr>
<td>+16179824314</td>
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<td>Boston</td>
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<tr>
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<tr>
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<td>United States</td>
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<td></td>
</tr>
</tbody>
</table>
RPA CLIENT SUCCESS STORIES

Vendor Validation

Quality Health - $38K
St. Pete’s Hospital - $29K
AutoMak Body Repair - $40K
Gen Chiropractor - $12K
Benford's law

Payments begin with $40* ($400, $4,000, $40,000)

$500K of payments are to Heavy Equipment Training Company

D.C. Job Training Funds Went To Firms In Legal Trouble
Good

Bad
RPA CLIENT SUCCESS STORIES

Invoice Review
RPA CLIENT SUCCESS STORIES
Vendor Discount Analysis

HOW TECHNOLOGY IS HELPING NONPROFITS ACHIEVE GREATER IMPACT
Contract Systems Already an 'Unmitigated Disaster' About to Get Worse, Warns Open Letter to General Counsel

"And we’re here to offer some provocative, possibly offensive, and certainly self-serving thoughts," said Mark Harris and Alec Guettel, co-founders of Axiom and Knowable.

By Phillip Bantz | May 13, 2020 at 02:50 PM
RPA CLIENT SUCCESS STORIES

Contract Analytics

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RPA CLIENT SUCCESS STORIES
Contract Analytics

HOW TECHNOLOGY IS HELPING NONPROFITS ACHIEVE GREATER IMPACT
Computer Vision

HOW TECHNOLOGY IS HELPING NONPROFITS ACHIEVE GREATER IMPACT
Poll: What would you predict?

1. Better financial forecasting
2. Customer-behavior
3. Sales
4. Receivables
5. Fraud
6. Employee issues
7. Litigation
8. Equipment maintenance
9. Safety issues
10. Economy-related
Where do I start?
# Implementation Roadmap

<table>
<thead>
<tr>
<th>STAGE</th>
<th>SOLUTION</th>
<th>SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSESS YOUR DIGITAL TRANSFORMATION MATURITY</td>
<td>Readiness Assessment</td>
<td>Benchmarking Assessment Systems Assessment Third-Party Attestation</td>
</tr>
<tr>
<td>DEFINE YOUR VISION</td>
<td>Strategy Roadmap Development</td>
<td>Business Transformation Digital Transformation Service</td>
</tr>
<tr>
<td>FIGURE OUT FINANCING</td>
<td>Corporate Finance Services</td>
<td>Corporate Finance Services R&amp;D Tax Credits</td>
</tr>
<tr>
<td>SET UP YOUR PILOT</td>
<td>Business Case Development &amp; Project Management</td>
<td>Strategy Development &amp; Execution Analytics &amp; Insight Business Analytics</td>
</tr>
<tr>
<td>ENGAGE EXTERNAL STAKEHOLDERS</td>
<td>Value Chain Performance Improvement</td>
<td>Management</td>
</tr>
<tr>
<td>PREPARE YOUR PEOPLE</td>
<td>Business Enablement &amp; Workforce Adoption</td>
<td>Digital Transformation Services Business Services &amp; Outsourcing Corporate Governance Change Management</td>
</tr>
</tbody>
</table>
Iterative, incremental innovation in small pilots enables faster decision-making and implementation.

Once you’ve established your vision and completed a comprehensive current state assessment, you can conduct a gap analysis to identify the data, technologies, talent, and capital you’ll need to enable your digital future. Based on where you see the biggest gaps and opportunities, you can set up your first pilot.

Think of each pilot project as an experimental sandbox, where the goal is to learn quickly and apply those learnings to the next experiment and/or scale the solution.
Prepare Your People

You need your people to understand why they need to leave the status quo behind, believe in the strategic vision, and feel engaged in the process.

Most importantly, they need to understand what’s expected of them and have the resources and training in place to get there.
Choosing the Right Technology

You can’t implement advanced technologies without laying the necessary infrastructure foundation.

Many companies mistakenly think that if they just adopt a new technology or practice, it will fix their difficulties — but it often just exacerbates the situation. Legacy IT infrastructure may not be compatible with modern software applications and development processes.

IT systems strategy should align with the company’s current level of maturity and where it wants to go, informing the level of technological sophistication required in the software and the level of discipline in planning. If your IT infrastructure doesn’t have the capacity to handle massive volumes of data and meaningfully report on it, or if you lack the controls to ensure data quality, you risk wasting your investment.
The integration of new cyber-physical systems creates more potential access points for bad actors, leading to an entirely new set of security risks on factory floors and in the products themselves.

Industrial control systems are enabling automation — but also opening the door to attacks on operating technology.

Hackers are using botnets to infiltrate and corral internet-connected devices into an IoT “army” to overwhelm a target’s servers with malicious traffic.

Smart devices like wearables can be hacked to compromise customer’s personal data — creating new product liabilities.

Denial of service attacks can result in supply chain disruption — even if your organization isn’t directly targeted.

Without adequate security measures and data backup, information in the cloud can be lost or stolen.

Any security gaps in manufacturers’ supplier networks can serve as entry points for hackers.

Bring your own device policies and remote access are enabling a mobile workforce — but more connectivity means more exposure.
Change the World

HOW TECHNOLOGY IS HELPING NONPROFITS ACHIEVE GREATER IMPACT
Thank you!