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Beyond the .com: How Web Development Creates Efficiencies for Your Business

**A Guide to Unlocking Operational Efficiency
Through Smarter Web Development**

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Introduction

As businesses rely more and more on digital tools to run operations (fulfillment, accounting, inventory management, custom relationship management, employee management, etc), inefficiencies start to creep in. Manual tasks, disconnected systems, and outdated workflows slow growth and frustrate teams. But with the right development strategies, you can streamline your business, eliminate bottlenecks, and create powerful tools that drive results. This whitepaper explores how web developers can go beyond marketing websites to revolutionize operations.

Companies may start their moves into digital with DIY tools that they can deploy themselves. But then the importance of digital grows to a point where digital professionals, especially digital marketing professionals, get involved in managing systems of increasing complexity.

Professional web developers soon become important because the sophistication of the digital landscape increases and so too does the reliance of the company on digital to generate and manage revenue.

In an age where there's a cloud-based version of virtually every category of business tool, it should be no surprise that web developers are called upon to manipulate what these tools can do and how they can be mashed up with one another.

What follows are three business cases where your marketing director and the web development team they work with weekly can or perhaps already use their digital marketing skills to support back-office operations. If your marketing director has

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touched inventory, finance, or ops management, you'll already know what I'm talking about.

They do this by applying the skills of building user-friendly interfaces, coding API integrations, and setting up secure, cloud-based systems to create valuable business assets that reduce friction and drive productivity.

There's a big unlock here. Efficiency is being surfaced, and friction is being reduced.

Managing Inventory Data

Backstory

The use case that prompted this whitepaper was when a client needed to use the web better to manage inventory data within an industrial manufacturing company. A disparate patchwork of databases and systems impeded the flow of inventory data. And because humans glued it all together manually daily, there were pervasive data entry errors and other problems.

A Microsoft database had long been the system of record for manufacturing robot parts and assembly inventory. A BigCommerce store acted as the primary online purchasing portal. A separate marketing and sales-oriented .com brand was inching its way into the fulfillment space, moving beyond just marketing copy and product evangelism.

The .com brand site was starting to successfully offer quick ship concepts to allow customers to completely bypass the human sales rep and discover and buy directly online. To streamline all of these systems, the inventory had to start to flow more freely and reliably. So, in steps the web developer.

What the web developer can do for inventory

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Everything's in the cloud, so everything has an API.

An API is an Application Protocol Interface. It's a convoluted name that just means one system on the web can talk to another system on the web using an agreed-upon language. In today's web, not only are there APIs but there are widely adopted standards of accessing APIs and exchanging data. For example, most APIs nowadays format data using JSON and communicate securely over SSL and OAuth 2.

Web developers work with these protocols as part of their day-to-day. JSON is JavaScript Object Notation, and OAuth 2 is an open-source method of authorizing one system to connect to another. Since these are common protocols used by web developers as they spend the bulk of their time managing marketing websites, they can easily pivot and write code that helps backend systems work with one another.

But what about that Microsoft database I mentioned above? Is that just as easy to work with? No, unfortunately. As we work with back-office systems, we often work with legacy systems. We work with old databases, old copies of QuickBooks, old CSV files, etc. But here again, the web developer is the best equipped to solve complex digital problems.

It's common practice for us to patch legacy systems into a modern framework by utilizing modern tools. Dropbox, for example, can behave like a standard file folder on one machine when in fact it is part of a highly flexible and distributed cloud infrastructure.

For this client, we were able to get inventory from an offline, on-premises inventory system (Microsoft database) up to a Craft Commerce website by having it export nightly CSV files to a Dropbox folder. The Windows machine that the Dropbox folder was on didn't need to know that it was sending data to the cloud.

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But once files were copied, we would then access those files and translate them into something the rest of our systems could work with.

Why it matters

Why are our clients turning to us to streamline back-office inventory systems? Why wasn't the status quo good enough?

The status quo is human data entry. The status quo is back-office staff repeatedly copying and pasting data from one place to another.

With this setup, you get two things guaranteed: human error and human inefficiency.

I'm not a fan of putting people out of work. I'm a fan of utilizing people to their fullest capacity. Day in and day out, data entry is not it.

So, these back-office integrations are put together by your web developer, the person who is best equipped to get web-based systems to talk to one another and leverage readily available technology to reduce human error and decrease friction. Yet some companies still have humans doing the work.

The remedy is readily available, but we still go for inefficiency sometimes.

In this case, streamlined inventory management meant:

- **Faster order fulfillment:** Customers bypassed sales reps with confidence.
- **Fewer errors:** Automating data flow reduces manual mistakes.
- **Scalability:** The client expanded their quick-ship program, driving revenue growth.

Efficiency isn't just about saving time, it's about unlocking new opportunities and delivering a better customer experience.

Managing Financial Data

Backstory

Even in my own company, I had the legacy, back-office, inefficient systems you saw in the inventory example above. Only in my case it was Solspace's financial data.

Like many businesses, we relied on QuickBooks Desktop for many years since the company's founding. We had separate systems that handled sales of our software products. We had separate systems that handled our client billings. We also had multiple systems that handled client payments.

We would copy and paste data into QuickBooks Desktop for each of these. This was inefficient, and it wasted the time of one of Solspace's best contributors. In addition, many helpful and valuable ways of merging and syncing our data, not to mention visualizing financial trends and projections, were prohibitively difficult to do. We boxed ourselves in and made it nearly impossible to build more value on top of our data to gain more business insight.

What the web developer can do for finance

As a web development company, we saw an opportunity when we looked at the tangled mess we had created. If we took the leap and moved from QuickBooks Desktop to QuickBooks Online, we could use its API.

We could use Jira's API if we took the leap and moved our project management to Jira from where it was.

If we unblocked these two avenues, we could use our web dev skills to build a web app to talk to our various APIs and unify our data into one system.

We didn't go quite that far, though.

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As web developers, we obey the KISS principle. We keep it simple. In our case, this meant remembering to let the systems (Jira, QuickBooks, Stripe) be excellent at what they were excellent at. And our web app would fill in the blanks for those finance activities where there was weakness.

Why it matters

Here's why streamlining our back-office finance work using web developer skills matters.

First, we freed up one of our most talented contributors to focus on more valuable work. Now, she doesn't spend her days copying and pasting.

Second, we reduced human error and inefficiency.

Third, we created a new platform, our web app, which we could build into the future.

The benefits of streamlining finance included:

- **Time savings:** Freed up our team to focus on higher-value work.
- **Fewer errors:** Reliable data ensured accurate reporting.
- **Better insights:** We built a snapshot tool to visualize financial trends, enabling faster, data-driven decisions.

As of this writing, I checked a new snapshot view I had created of our finances as they progress through the month. It took a week in my spare time to put together and provide months of valuable data. Visualizing data is a superpower. Unlocking that superpower is worth the effort.

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When you can make management decisions quickly but based on hard data, you gain a valuable velocity that can make a big difference in the trajectory of a business.

Managing Institutional Knowledge

Backstory

One of your teams solves a problem for a client. Then, a year or so later, another one of your teams solves the same problem for another client. Did the two teams talk to each other? Did they even know about each other? Did you reuse and refine the same solution the second time you used it? This is the modern intranet.

In the days of yore, companies would use their intranets as repositories of the most mundane data. But nowadays companies are using their intranets to really capture and propagate value.

We had a client who wanted to round up all of their client projects in one place so that all of their project teams could share knowledge. Not to mention, their marketing division really wanted to reach in and extract great case studies and market intelligence.

In fact, they thought a template could be created to make it easier for the ops teams to provide the kind of marketing insights that would be valuable in driving new business.

In comes the web developer.

What the web developer can do for institutional knowledge

Once our client figured out which web-based systems they could rely on to capture client project data, we could then move to unify the information into more user-friendly views. Once we could gather the data from multiple systems, we

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could create interfaces that made digesting it much more reliable and friction-free. Again, it all came down to the power of APIs.

As with the finance example, we created a separate web application on their intranet that harvested data from the various other systems. This web app would homogenize and present the data simply and clearly so project teams across the company could benefit from it.

Why it matters

Our client's clients come to them for the creation of value. The clients benefit when they can amplify their creative power by effectively sharing information across the organization. This new capability matters because it's flexible, reliable, and frictionless.

This new capability is adaptable. It's future-proof because it is built on commonly available, open-source web development tools. It can be modified and morphed over time as the project teams and the company changes. Such a powerful tool with such longevity has undeniable value.

The new system allowed teams to:

- **Collaborate more effectively:** Reuse and refine solutions across projects.
- **Drive marketing value:** Quickly generate case studies to showcase success.
- **Adapt easily:** Open-source tools ensured the platform could evolve with the company's needs.

Sharing knowledge isn't just about efficiency; it's about amplifying the creativity and expertise within your organization.

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But are there actual numbers to show as proof? Was there a 20% lift in something? A clear increase in some metric? No. And that in itself is interesting.

We're talking about building business infrastructure here. We're talking about laying entirely new pipelines and conduits of revenue. Can you measure something that shifts an entire company into a more prosperous execution mode?

Conclusion

The main theme of this whitepaper has been digital evolution. It's about the evolution businesses go through in using digital tools to reduce friction, streamline operations, and increase efficiency. There is long-term value in these efforts.

As businesses evolve and mature, they start with simple do-it-yourself tools. Then, they rely on these tools and invest further in them. Sophistication increases and so too does the reliance on professionals who can deploy and support digital tools.

In this day and age, this is where the expert web developer comes in. Business productivity tools are largely digital and cloud-based now. The first to adopt and master such tools were web developers and marketing directors. These people are relied upon to shepherd the next stage in a company's digital evolution.

So, how do you know it's time to take the next step? Look for:

- **Friction:** Repetitive, error-prone tasks that slow productivity.
- **Missed opportunities:** Outdated systems holding back scalability.
- **Disconnected tools:** Data silos that create inefficiencies.

Efficiency isn't just about doing things faster, it's about unlocking potential and driving meaningful growth. If you're ready to evolve your business with smarter systems, [let's talk](#).