PARSABLE

Your Guide to Digital Work Instructions for CPG Manufacturing

# Introduction: Digital Work Instructions Defined

Recent research from global analyst firm Verdantix found that digital work instructions are one of the biggest needs in manufacturing, especially among companies looking for connected worker technology solutions[1].

That should come as no surprise. Digitally documenting work processes provides faster, more reliable data to improve operational performance. This is particularly true in CPG manufacturing, where pent-up consumer demand, batch-size-one pressures, and changing regulations mean you're dealing with more variables and higher risks up and down the supply chain.

But first: **What's the definition of digital work instructions in the context of CPG manufacturing?** Broadly speaking, these instructions present a standard operating procedure (SOP) in a digital, interactive and iterative format, most often through an application on a mobile device. As a frontline manufacturing worker executes the procedure step by step, information is digitally captured for recordkeeping and analysis.

Not only do digital work instructions replace paper-based ones, they enable manufacturers to gather valuable data on frontline work — what's effective, what's not, and what to prioritize. Perhaps more importantly, they empower frontline workers themselves to provide input these procedures and be an active part of the continuous improvement process.

This guide is designed to provide everything you need to know about digital work instructions in CPG manufacturing.
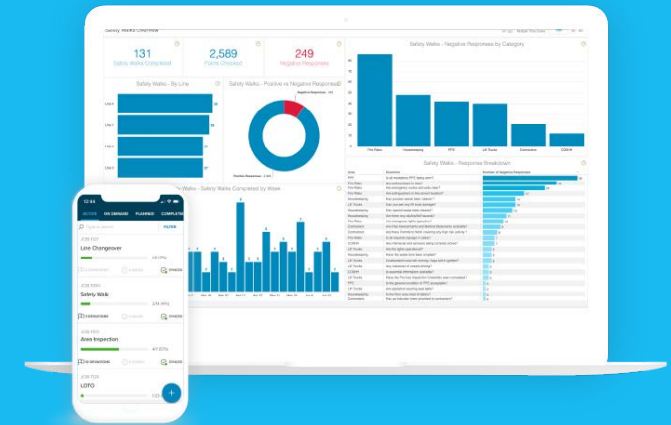
What is Connected Worker Technology?

Connected worker technology connects frontline workers to the people, information, systems and machines to improve productivity, quality, safety and sustainability.

It allows for a deeper layer of insights that informs next steps within a work process, identifies patterns and predicts outcomes — ultimately driving continuous improvement.

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[1] Verdantix Buyer's Guide: Connected Worker Solutions, 2022

Why CPG Manufacturers Need to Digitize Standard Operating Procedures

You know that in CPG manufacturing, consistency is key to productivity, quality, safety and ultimately profitability. On the factory floor, SOPs are critical to ensure work is done correctly and consistently.

But the way SOPs are authored, published and used must change.

For a long time, these work instructions have been recorded in a paper binder or on a task board, as static PDFs stored on a decade-old computer work station or, in some cases, simply in the memories of employees who've been working the job for decades.

Paper-based SOPs are problematic for many reasons. It leads to waste (both physical waste and time wasted), is costly, and the information collected often isn't timely or accurate because it's prone to human procrastination or error. For example, many frontline workers relying on paper-based processes often log their tasks and information on a sporadic basis, leaving important information to be lost throughout a shift. Usually, the data that is collected on paper then must go to a manager who manually enters it into a spreadsheet or computer program, resulting in a very time consuming process that also can easily introduce mistakes.

The bottom line: Leadership — and your company — is missing a valuable opportunity to collect accurate data that can improve and streamline production and operations…and to make it easier for employees to collaborate.

Analog Practices Remain Prevalent on Factory Floors

In a survey of frontline manufacturing workers:

81%
rely on paper-based processes to follow instructions and/or keep track of their work

76%
rely on verbal communications with team members

43%
rely on phone communications with team members

Source: Parsable survey of 1,400 frontline workers, 2021.

How to Create & Implement Digital Work Instructions in 6 Steps

Functionally, digital work instructions encompass three main areas: authoring, publishing and using. Here's a step-by-step guide to bring these all together for a successful implementation and for the continuous improvement of the SOP.
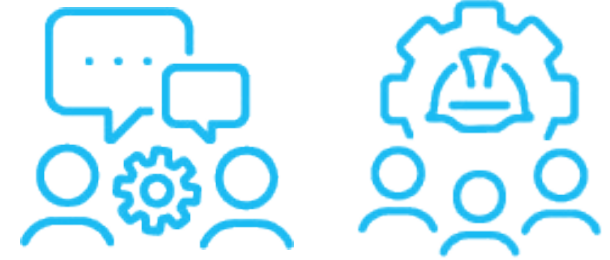
1. Determine the Job Process

This is an important foundation for building effective digital work instructions. Before anything else, you must understand the SOP you're trying to document. Authors – those who create the digital work instructions and workflows – should do one or both of the following:

- Spend a significant amount of time on the production floor where the work is actually taking place. Operators will provide you with practical and beneficial information that will help make your work instruction a more accurate and valuable reference.

- Collaborate closely with teammates that work directly with the process. Don't forget about the passive involvement of shop floor personnel in approving or reviewing the work instructions, or active involvement as a member of the actual project team.

2. Understand Your Audience (Users)

Your primary audience are the frontline workers who will follow and execute the work instructions. So, it goes without saying that they must be clear and concise, especially given the busy environment of a factory floor.

Easy-to-understand instructions are key, but great digital work instructions require more than just concise steps. It's often said that a picture is worth a thousand words, so consider visual aids like images or videos. Think about providing prompt access to the right subject matter experts if an operator or worker has a question or needs verification.

Your secondary audience are the quality, engineering and product teams. They are interested in the data collected as the work is being executed, while ensuring the work instruction accurately depicts the process as it was designed. By tapping into the human and machine data, it can be used to drive continuous improvements around the process and product.

3. Define What You Want to Measure

Defining the specific data collection requirements relative to your products, processes, facility and customer demands is a critical step in the process. Many connected worker technology companies, including Parsable, have implementation consultants on hand to help you identify what data can be captured and what insights can be extracted (not to mention being an overall partner in the entire process of digitizing your work instructions).

By tracking and accounting for all the moving parts and processes on a plant floor, technology can continuously capture data and glean insights to improve productivity, quality, safety and sustainability.

4. Understand Effectiveness

Take the time to speak with key internal stakeholders to understand the effectiveness of your digital work instructions.

Connect with the frontline operators who will be using the instructions, and gather their input and feedback. Talk to your engineering and quality teams to verify that data you are measuring is what they are looking for. This is an opportunity to have other team members validate and help drive continuous improvements.

5. Improve Your Process Documentation

A fundamental advantage of digital work instructions over static paper- or PDF-based ones is that it's not "one and done." Once you've published the instructions – as in, it's live and ready to be used in the mobile app – it's time to iterate, iterate, iterate.

 Repeat the first four steps of DMAIC (define, measure, analyze, improve, control) as many times as necessary until your process is stable. Make sure that the right people see the right information at the right time. It's critical to collaborate with frontline workers, quality and engineering teams to build better, more effective and intuitive versions as the work is being executed and initial data being gathered.

6. Apply Control to Ensure Adherence

The control cycle is where you sustain the changes and see that the process is generating a consistent outcome. It's the phase where you see if your documented process actually works and if people carry out the instructions as presented.

First and foremost, enforce adherence on the shop floor. The control phase can be supported by internal policies and procedures within your organization that require compliance. Make sure your frontline workers are using the digital work instructions at all times. This way, you can reduce all variance and get consistent output, getting the process as tight as possible. Creating a feedback loop in order to implement changes and updates is invaluable during this last step.

Success Story

Coca-Cola European Partners Germany (CCEP DE) has approximately 325,000 retail and foodservice customers in Germany that expect customized concepts that keep pace with new market and service trends — all while bottling and selling 3.5 billion liters of mineral water and soft drinks in Germany every year.

THE CHALLENGE
Clean/inspect/lube (CIL) instructions had been stored on paper in ring binders. Employees confirmed completed work on paper lists, which were later partially manually transferred to Excel for documentation and reporting.

THE SOLUTION
Together with experts from Parsable, these paper-based procedures were transformed into image- and video-based digital work instructions.

"In the Parsable app, the instructions are now available to employees as needed. A worker sets the checkmarks, confirms that all is done, and automatically all the data is documented. The process has definitely become more streamlined and faster."

Steffen Löser, Coca-Cola European Partners Germany Manager of Processes & Solutions

CPG Manufacturers Must Act Now

Now you know: Digital work instructions allow CPG manufacturers to ensure frontline workers have clear direction in completing processes for maximized productivity, quality, safety, and sustainability. Manufacturers also gain data-driven insights into what's effective and what needs attention, so they can confidently make critical operational and business decisions.

But CPG manufacturers can't afford to wait for another reason. With a wave of retirements, resignations and an overall shortage of workers, manufacturers know they need to attract new talent to fill critical frontline roles. Much of the new talent pool lies within Gen Z and millennials who have grown up with digital technology at their fingertips, at home, and at school for their entire lives. Their expectations for the workplace are no different, and digital work instructions are essential for these younger generations who consume nearly all their content digitally.

45%
of frontline manufacturing workers would consider leaving their current employer for a more modern, digital work environment

Source: Parsable survey of 1,400 frontline workers, 2021.

Parsable, provider of Connected Worker®, has helped global CPG brands like Henkel, Coca-Cola European Partners, Grupo Bimbo, Suntory and more roll out comprehensive, mobile-first digital work instructions across multiple sites and languages. To learn more, visit www.parsable.com.

About Parsable

Parsable empowers industrial workers with modern digital tools to improve productivity, quality, safety, and sustainability. Connected Worker® from Parsable transforms static, paper-based procedures into mobile and interactive work instructions, enabling workers to leverage multimedia formats and collaborate in real time. With Parsable, companies gain unprecedented insight into human work by capturing essential data to improve their operations. A member of the World Economic Forum's Centre for the Fourth Industrial Revolution, Parsable is trusted by top global companies in the manufacturing, energy, consumer packaged goods, chemical, aerospace, industrial equipment, automotive and packaging industries. Learn more at **parsable.com**.

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