
Using Video to Capture Workforce Knowledge

EXECUTIVE SUMMARY

With up to a third of workers in many enterprises approaching retirement, capturing their extensive job knowledge is more important than ever. Much of what they know may not be codified in any way. Some of them may have started working under apprenticeship programs before the use of modern process documentation. Moreover, their subconscious expertise – the subtle “tips and tricks” layer of hidden job skills – is so intuitive, subjective and contextual that it does not lend itself to a tech writer’s narrative. Yet this tacit knowledge can be critically important to the next generation of workers’ own safety and productivity as well as the success of the enterprise.

So how can it be captured? The best way is to get the workers to talk about – or even demonstrate – what they do, how they do it, and how they know when it’s done right, and capture that conversation on video. This toolkit provides the steps and methodology for conducting these interviews and producing videos to be used as part of the training for incoming workers. Don’t put this off! Once these workers retire, it will be a lot harder to get the information they hold in their heads.

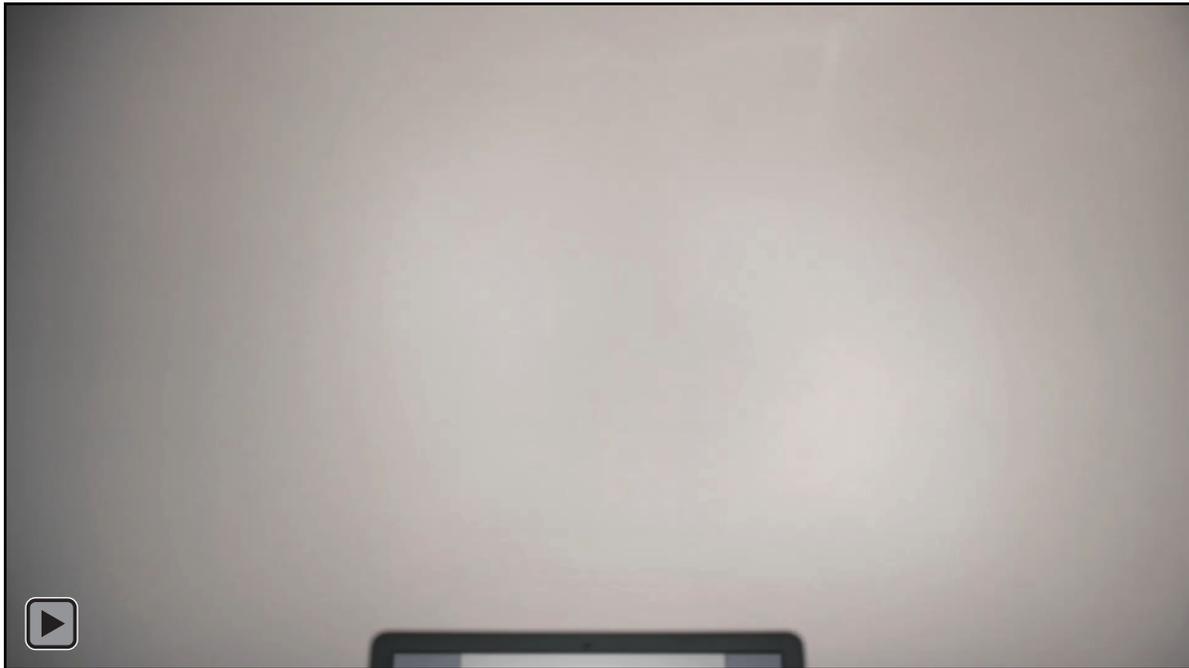


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Introduction

Workers who are approaching retirement age today are the silent group that often gets the work done without saying much. Many of them may have apprenticed with their predecessors, and their skills and procedures may not be written down or otherwise codified. With that in mind, enterprises face tough challenges in the future if they fail to capture the knowledge these workers hold in their heads and their hands. This toolkit identifies a way to use video to do this.

Video capture used to be expensive and time-consuming. It isn't anymore. Capturing a person on video, just talking about their job or showing people what they do, provides inestimable value to future workers for very little cost or effort.

Step 1: Identifying Who Has the Knowledge

The first step in deciding to capture knowledge is to identify the most critical jobs at the firm and then identify the people who are performing those jobs. This is an important first step. Some of the people who have the knowledge often don't want to write it down and that is a key reason to leverage video and audio recording.

Coming up with the list of key people to interview is a critical part of the process; so is locating them and scheduling the interviews. A key element to remember is that this project is time-sensitive: **these people are already starting to retire**. More of them leave every day, taking their expertise with them, so **delay can be costly**.

As part of the identification step, an inventory of the individuals and knowledge to capture is important. The initial inventory record will provide a starting point for tracking the knowledge capture initiative, and a way to get management attention, prioritization and buy-in (see Table 1).

Name	Role	Key Function	Essential Knowledge	Interview Schedule	Related Roles/People
John Q. Sample	Manufacturing	Machinist	NC Machine Tool Setup	12/23/2013 Shop floor	IT: QNX programmer Mfg: Tool & die

Table 1: Knowledge Capture Interview Worksheet

Step 2: Setting a Capture Policy

Think of this video recording initiative as a form of record capture. Sometimes people want to share their knowledge, but sometimes getting access to them is easier said than done. More importantly, this also communicates to managers that people need to be given time away from their tasks to share their knowledge with the videographers.

Gaining buy-in and support from managers and individuals alike is critical. A formal communication from the executive sponsor will establish the necessary sense of urgency, and ensure that individuals participate and managers support involvement and time commitments.

Step 3: Planning The Interview

The tools that can be used to capture video have improved dramatically. While even an HD phone can be used, it is still a good idea to have the recording device in a stationary place, such as on a stand or otherwise mounted in a recording room.

Even before the capture session, a *storyboard* should be worked out in advance. The type of video capture required would depend on the knowledge being captured and the audience who will be using it. Anticipate both in advance, and ensure that the setting, tools and planned output are aligned with your expected needs.

Hiring a Video Capture Team

In some cases, particularly where there is a significant employee population, a team may be hired to do the video capture. This is true particularly if there are multiple people to be interviewed.

A key success factor is to have a skilled interviewer conduct these sessions, someone who knows how to put at ease people who are not used to being on video, and get them to talk and move freely in the memories of their work. This is as critical a skill as the video production itself. A bit of clumsy editing will not derail a new worker's learning experience, but a stiff, uncomfortable interview subject can severely undercut the value of the content.

If a team is hired, the contract should specify the number of people to be interviewed, the amount of editing will be done to create a finished content (minutes of edited video) and the staff that will be assigned to oversee and manage the deliverable. It is advisable to ask for a fixed price contract that would list the deliverables.

Step 4: Filming the Video

Doing a series of video interviews with a knowledge expert is a good way to capture a subject's tacit knowledge. Some manufacturing firms are using this approach to gather the institutional knowledge that their people have. Having a standard set of questions to ask a person is key.

The Interview

In an era where HD video capture can now be done with a phone or a HD video camera, the capture part of it is not that hard. Having the person outline some of the things he or she wants to cover is part of it. A good approach to bringing out the real stories is to have a person interview the individual with a series of questions the person sees in advance.

The interview and resulting video will determine how effective the knowledge capture and transfer will be. Attention to 5 key elements in the interview will maximize value of the resulting videos:

- *Clear Objectives:* Identify from the outset the objectives for the video, and what viewers should expect to gain.
- *Business Context:* be sure to identify the importance of the knowledge to the business, the processes affected, and how people in various roles will make use of the knowledge.
- *Personalize:* use some interview questions to help the audience to get acquainted with the expert.
- *Establish Credibility:* provide enough details about the work history, performance and productive output of the person to establish expertise and credibility for maximum impact.
- *Effective Structure:* manage the structure and flow of the interview to make it clear and simple, so that viewers can learn and the interviewee will be engaged and eager to share his or her story.

Here are some sample interview questions that can put the subject at ease, set the context, and lead to deeper drill-downs on specific aspects of the job or process being discussed:

- *Tell us a little about yourself.*
- *When did you join the firm?*
- *How long have you been doing this particular job?*

- *What is different about your job today than it was when you first started it?*
- *What is the hardest part of the job?*
- *What are some tips that people take the longest to learn?*
- *What key things about your job would you like to pass on?*
- *Can you show us what your average day is like? Where do you start?*
- *What would you change about your job and the processes you have to follow to make things more efficient?*

The Job Scene

Capturing motion or action may require more work and planning. For example, an operator who is a trainer on a complex coal-mining machine may be better at explaining things in the cockpit of the machine, and that requires a little shot setup work.

The Editing Process

Editing the content of these videos into knowledge nuggets is important, since any snippet may be the valuable piece of knowledge that others need to know. If this is discussing a particular process or product, cutaways to the product are important.

In many enterprises there may be an editing department. In smaller firms there may not be. You might be surprised how good some amateurs are at video editing, as even low-end tools such as iMovie are capable of delivering good results. Here are six products that may be suitable:

- **Adobe Premiere Pro CS6** is a popular midrange choice for video editing on Windows and Mac platforms. It sells alone, for under a thousand dollars, or as part of Creative Suite 6, an integrated bundle of graphics, media and Web tools.
- **Apple iMovie** is a free tool that ships with all Macs and also works on iPads and iPhones. It's designed for casual use, but in talented hands it can deliver some highly polished videos.
- **Apple Final Cut Pro** is a Mac-only video editor suitable for in-house corporate video departments. At \$300, it's a cost-effective alternative to Adobe for Mac users.
- **Avid Media Composer** is also popular with professional editing studios. Avid offers a variety of high-end tools for different businesses needs, such as broadcast and cable news operations.

- **Pinnacle Studio 16** is a popular Windows editing, effects and DVD authoring tool that is distinguished by offering a separate iPad app. Its price is comparable to Roxio's, but unlike Roxio, it's a single application rather than a suite.
- **Roxio Creator NXT** is a popular Windows editing tool used by consumers and small businesses. It's under a hundred dollars.

Just as with learning content design, in some cases a “good enough” effort can get the project 90% of the way home. Then let a professional help with the final polishing.

Keep the raw files in a project server; in some cases the full files may need to be available to content or subject matter experts for other projects.

Table 2 shows a sample list of scenes for a finished video.

Content	Time
Opening – logo and music voice over doing introduction	30 seconds
Introduction of interviewee, including close-up	30 seconds
Opening questions and answers (mix of shots)	1 minute
Cutaway to job tasks voiceover from interviewee	1 minute
Best practices questions	1 minute
Key takeaway	30 seconds
Total	4:30

Table 2: Business Video Storyboard

Step 5: Publishing

There are many ways to publish and share content. From a learning perspective, getting that first edited piece of video content out should be the priority. Today, short videos are a best practice. Editing content down to 5 minutes is a great practice when dealing with people who are used to watching short YouTube videos.

Including the video content as part of an existing training course is also a best practice. It can often be branded as a ‘Meet the Expert’ interview. This type of content can substantially add to the knowledge transfer. In many social learning systems, formal courses have auxiliary material and this is a good place to put this type of material.

In other cases, this material can be used to build a simulation that combines all the knowledge captured in the video. In other cases, having the expert participate in the development of the simulation is another way to leverage the individual’s knowledge.

Step 6: Re-Use in Training

Captured content can be reused in a lot of different scenarios. In some cases, having a common repository is important so that others can be aware of existing raw material to use for other deliverables.

Some reuse possibilities include:

- Instructor-led training – show a clip as an example or before an exercise.
- During a virtual classroom.
- In a social learning situation, either as auxiliary information or as a pre-read.

Aragon Advisory

Enterprises need to tackle the looming issue of knowledge that will leave the organization when long-term employees retire. Video capture is a new best practice.

Enterprises should make this approach to tacit knowledge capture a priority and follow the six steps outlined in this toolkit.

Bottom Line

Video recordings are one of the least expensive ways to capture and share knowledge. Establishing a process to do this on a repeated basis is an effective and an inexpensive way to keep passing information on to future workers in the workforce.