

Content Scheduling & Posting Pipeline

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Drop a video or carousel in a Drive folder and it gets understood, captioned for each platform, scheduled in Notion, and posted, with one approval step.

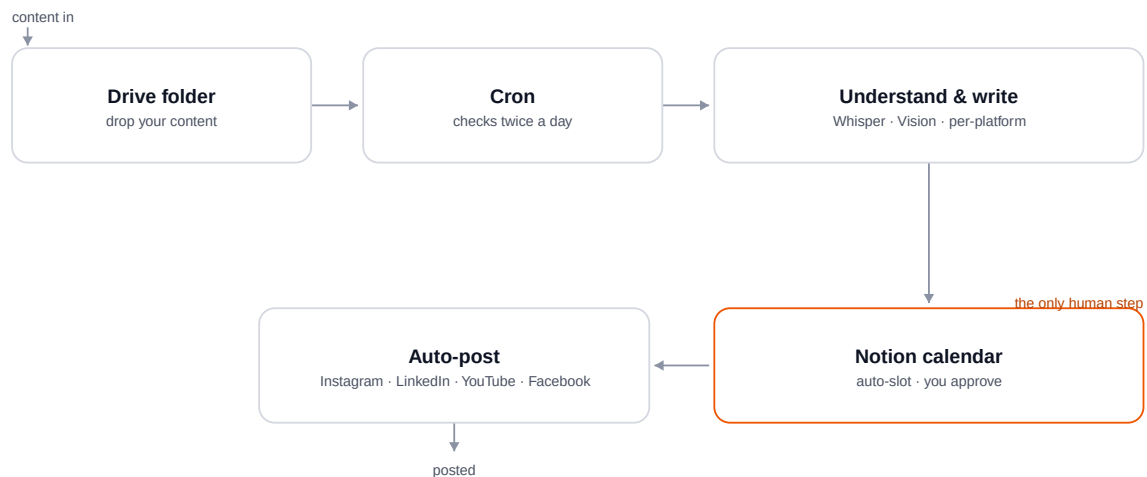
Python · Modal · Whisper · Claude Vision · Notion API · Drive API

Problem

Posting consistently across platforms is a daily tax. Making the content is the easy part. Shipping it every single day is what breaks: writing a different caption for each network, finding the right hashtags, picking times, and fighting each platform's upload quirks. It is hours a week, and it is the first thing to slip when you get busy.

Approach

I drop a finished piece of content, a short video, a carousel, or a single image, into one Google Drive folder. A cloud job checks that folder twice a day for anything new. When it finds a piece, it understands it first: it transcribes videos with Whisper to pull out the topic, and reads carousels and images directly with Claude Vision. Then it does a quick live web search for current trending hashtags and platform best practices, and writes a separate caption for each platform in its own voice: a hook-led Instagram caption with hashtags and a first-comment CTA, a professional LinkedIn post, an SEO title and description for YouTube, and a conversational Facebook version. Everything lands in a Notion content calendar, one entry per platform, auto-assigned to the next open posting slot across the week. I review and approve there, the only human step, and a second cloud job publishes each piece when it is due, marks it posted, and retries cleanly if a platform hiccups.



Result

Posting across four platforms stopped being a daily job. Content goes from a folder drop to scheduled posts with captions written for each network, and my only involvement is a quick approval in Notion. The captions are actually platform-appropriate instead of one message copy-pasted everywhere, and because each piece moves through its own states as it goes, nothing is ever posted twice.

The screenshot shows a Notion page titled 'Content Calendar' with a table of scheduled posts. The table includes columns for Name, Caption, Content ID, Content Type, Description, Drive URL, and Emmy Goal. The posts are organized by platform and date, with a mix of image and video content types.

Name	Caption	Content ID	Content Type	Description	Drive URL	Emmy Goal
Instagram 18D772EB Website AI As	Most people think the AI chatl	18D772EB	Image			
Facebook 18D772EB Website AI As	Most people think the AI chatl	18D772EB	Image			
LinkedIn 18D772EB Website AI Ass	Most people think the AI chatl	18D772EB	Image			
Facebook 5A1C68BE	Every morning, I get my scher	5A1C68BE	Video		drive.google.com/fil...ivesdk	
YouTube 5A1C68BE	This is how AI runs my busine	5A1C68BE	Video	Every morning, my AI assistan	drive.google.com/fil...ivesdk	
LinkedIn 5A1C68BE	I get my daily schedule sent to	5A1C68BE	Video		drive.google.com/fil...ivesdk	
Instagram 5A1C68BE	My AI assistant texts me my s	5A1C68BE	Video		drive.google.com/fil...ivesdk	
Facebook 04DED440	I spent months hearing "AI ag	04DED440	Video		drive.google.com/fil...N/view	
YouTube 04DED440	AI agents are just 4 things: LL	04DED440	Video	AI agents finally made sense t	drive.google.com/fil...N/view	
LinkedIn 04DED440	Everyone's throwing around "	04DED440	Video		drive.google.com/fil...N/view	
Instagram 04DED440	It took me way too long to unc	04DED440	Video		drive.google.com/fil...N/view	
Facebook 21FD0E9E	It took me a while to understa	21FD0E9E	Video			
YouTube 21FD0E9E	AI agents explained in 60 sec	21FD0E9E	Video	I'm breaking down exactly wh		
LinkedIn 21FD0E9E	Most explanations of AI agent	21FD0E9E	Video			
Instagram 21FD0E9E	An AI agent is just four things	21FD0E9E	Video			

What I'd do differently

Give the approval view a quick inline preview of every generated caption so editing is faster, and put all the platform posters behind one shared adapter so adding a network like TikTok or Threads is a small change rather than a whole new integration.

Repository: <https://github.com/hermann-ndamen/content-pipeline>

Interactive version and demo: <https://www.hermannndamen.com/portfolio/ai-engineer/content-pipeline>