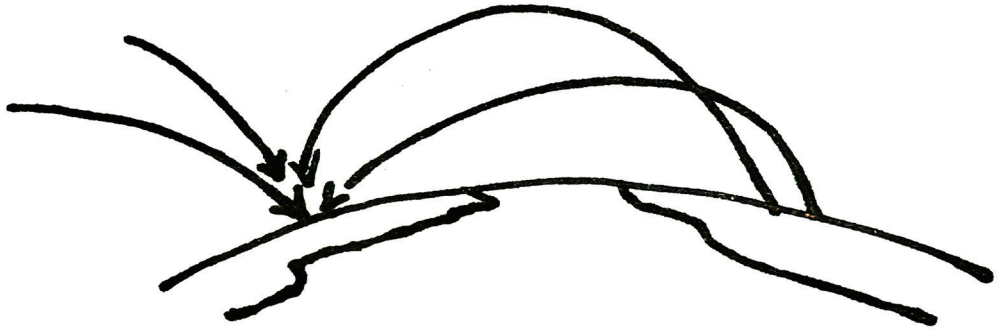
INTERVIEW WITH BOB NANGLE

ON PRESS: THE MEMORY, RUNNING MACHINE, AND MERIDIAN PRINTING

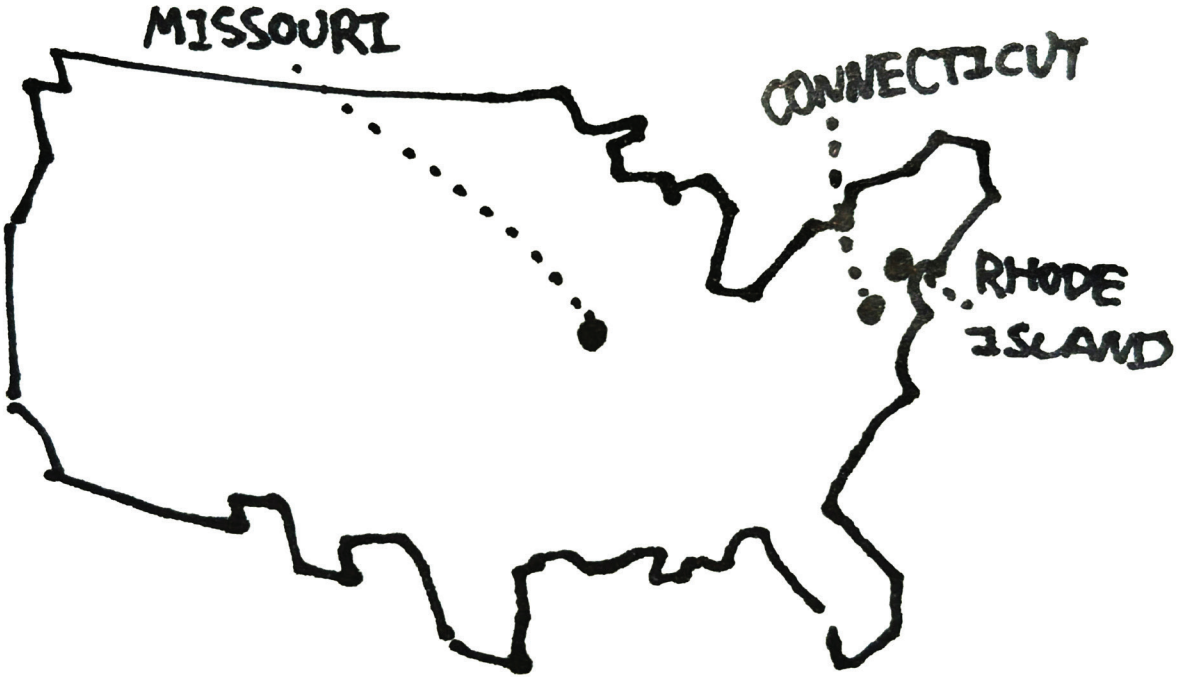


WHO IS BOB?

Can you provide a little intro of who you are and what you define your profession?

I'm Bob Nangle. So I'm one of the owners of Meridian Printing. We're a commercial printing company that specializes in sheet fed offset print. As for my personal background, I'm a Rhode Island person who grew up here, went to University of Rhode Island for college. My degree is more in finance and accounting. Out of school, I went to work for a printing company in Connecticut and they were doing what's called business forms. So it would be 3-Part business forms, computer paper with the pin holes along the side, carbon paper that used to be, (well before your time) before carbonless paper. I was in that printing industry for a few years, and then I moved back to Rhode Island and eventually ended up coming to work here in Meridian Printing.

Over time I evolved from being in the accounting side to being in the operation side. Then in 2002, myself and my business partner, we bought the company. We've owned it for the last 22 years.


MISSOURI
CONNECTICUT
RHODE
ISLAND

That's really cool. I know you've already touched on it a bit. I'm really curious to hear more about your journey from Connecticut to Rhode Island. Why did you end up with Meridian printing when it is quite far from your original profession?

Inevitably, 90% of kids who go to college don't end up in the field that they think they're going to end up in. So you have graphic design today, you could be a bus driver tomorrow. You evolve into something, fall into something. So a lot of people just evolve, and will fall into something. So because my degree was accounting, moving right out of school, I went to work as a staff accountant at a printing company in Connecticut.

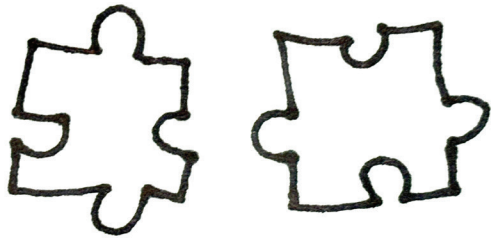
Overtime I felt that accounting was not really suited for me. I didn't like just sitting behind a desk and looking at numbers. I was out meeting the people, talking to people, and then it became more of a manager of the accounting department versus just the accountant I was.

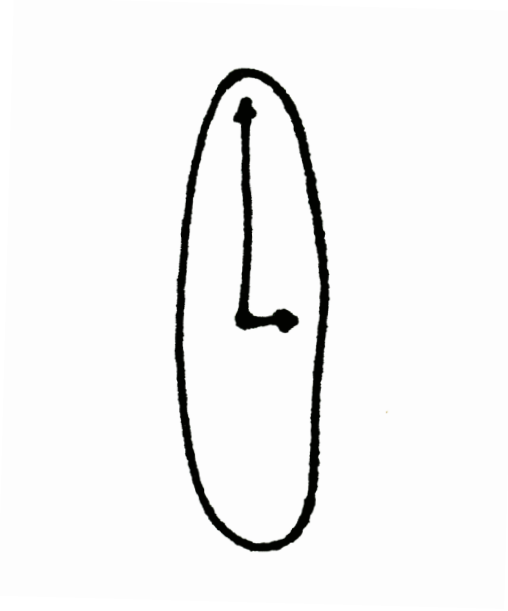
I was transferring from Connecticut to Missouri. So being with the big company, that's what happens. You're there for two years and they transferred me to Southeast Missouri into a different plant. They had 13 printing companies throughout

the US. So I went from Connecticut, to Kennett Missouri and I was there for a year and a half. And then I didn't like living in the mid-south, but I ended up meeting my wife down there. Moved back to Rhode Island, went into the food industry for a number of years. A coffee company.

Again, manufacturing. So my love is manufacturing, it doesn't necessarily mean it has to be ink on paper manufacturing, but making things is what I like. So being part of things that I made is what I like. So I was in the coffee industry again manufacturing and then I came to work here at Meridian Printing.

When we first started here, an Irish company had just bought the company. They owned Meridian back in 1997. So I helped them run the company, helped them buy other printing companies, and then they ended up wanting to sell some of the other printing companies. So we worked on selling those printing companies. And then we bought Meridian. So that's how I went from University of Rhode Island, Connecticut, Missouri and back to Rhode Island.



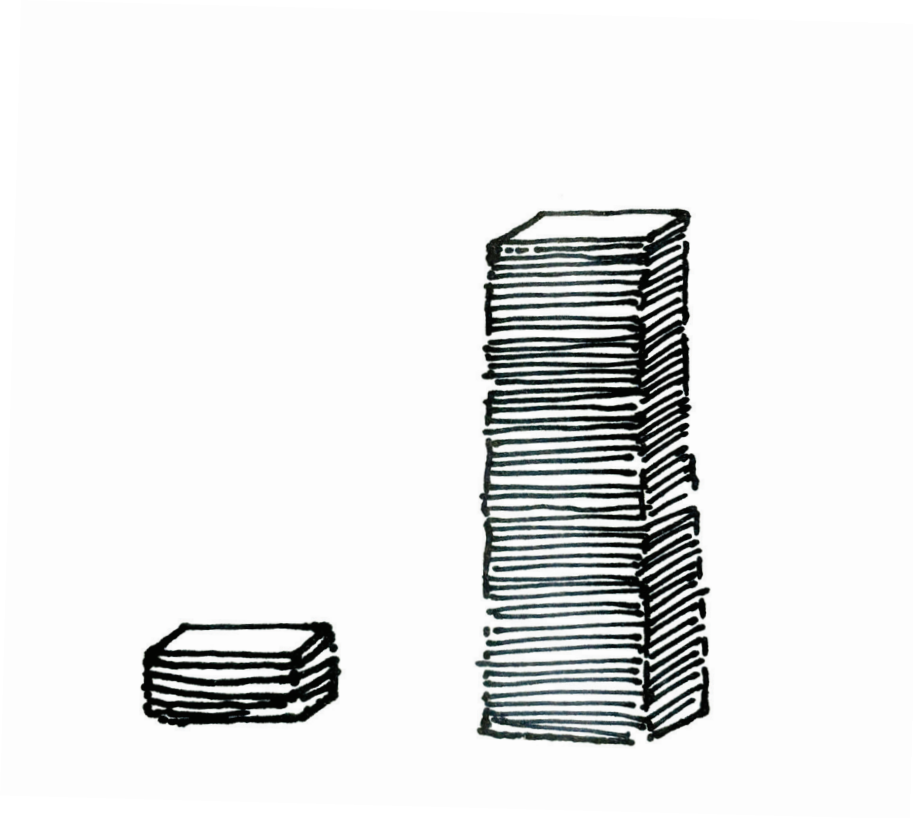


EVOLUTION OF THE PRINT

How did you see the "printing" process has changed in Meridian?

The offset printing has not changed a lot from the technology standpoint. Offset printing 25 years ago versus today is similar, but the electronic side of offset printing is much better. So now you can look at a computer screen and you see the different color plates. The speed of the presses is much greater. The registration of those presses today are greater than they were 25 years ago.

You get all of those better things. So what used to be 3000 impressions an hour. We're now running 12, 16,000 impressions an hour, so we're 2,3,4,5 times faster than running. We used to take an hour or an hour and a half to made-ready. It's now taking 15 minutes to 1/2 hour. We used to take a long time to make a printing plate,it's now way down. So the older technology 25 years ago was you were working with line type,and so you were working with lead. You work in that setting type. You were working with film. The old film technology is you can actually do table stripping.



You burn the films,
cutting pieces of films,
putting together a whole plate
based on those pieces of film,
and then you're going to burn
that film image onto that plate,
but it took weeks of Pre-Press to get to that point.

So you, the designer, took weeks of setting the files up versus today. You're doing everything in Indesign and sending us an electronic file, so it used to be the Pre-Press side of things used to take multiple weeks, weeks and then printing today. Today, the prepress side of it is a day. You can get a file today and you would be able to proof today. So we are able to turn a proof around very quickly today versus we used to have the output film then we have to go from film to burn it on plates and then we have a plate ready to go for the printing press.

THE PREPRESS

Just want to get more into electronic development, would you be able to tell us more about how pre-press worked back in the day?

We had a standalone pre-press company in Providence. So we imprint and own Elite Color Group. So back in the 70s and 80s, color houses were all over the place doing all kinds of different color work for different industries and the printing industry being one of those. And so they were actually stripping film in those locations and getting it ready to make plates for printing companies. So they had multiple employees that were getting in files. They would actually take images of those files to make printed film and then strip that film to burn them. So it was very labor intensive and very, very time consuming.

Then electronically, a device called Scitex came out. It basically is Photoshop on steroids. So it came out to where you can actually take both a horse's head, cut it, and paste it onto another horse's head. Now you're doing some early days of Photoshop.

We were able to bill that Scitex out at like $750 an hour. So if you had things that you needed me to cut and paste that electronically onto something else, we would charge you $750 per hour to do it, and it would literally take an hour for somebody to cut the head off, move it over to this horse, put it on, plug it in.

So it's like the analog of analogs.

Yes, so it was the very beginning stages of Photoshop and therefore it was very talented people who were doing this and therefore you could charge that kind of money. So the designer still designed everything, and the color house technician copied those layout from the designer. And then they type whatever the font was that that that designer designed the job in, then they would typeset using that font on a typeset machine to get it all things in there. But even before the typeset machine, you had lead type. So it would be the lead type that was being set on trays.

Today that's done in seconds with AI. It's done by itself to some level and you can't charge $750,000 because it took you 7 seconds or 3 minutes to do it. So that was one of the beginnings of how the prepress became more electronic versus analog. In addition to the Scitex happening, you now could digitally burn a plate while on the old system you would expose that film to light and burn. What used to take hours and hours to make a cyan, magenta, yellow, and key plate is now taking minutes on the automated plate status, and that was what was happening in the early 80s, mid 80s, and late 80s.

Technology kept getting better. It kept getting better and kept getting better. So as soon as you brought one device, a year later that was obsolete. As soon

as you brought your first computer that became obsolete; as soon as you bought your first Mac that became obsolete. And so the technology kept going and it changed slowly at the beginning, it picked up speed and it still continues to change daily now, not everybody keeps up with all of that technology.

What we have to do is we have to make sure we have enough of the old platforms to work with everybody. So if you're still on Quark, which nobody's still on Quark. But if someone had a Quark file, we probably still have Quark on one of the old computers back there that we could open that up and try to convert over to InDesign.

Or if you have an InDesign x that's way back, we may still have that InDesign x that we can open up that file and move it forward to a newer one. More and more designers are keeping up with technology in the present than before. If you're on InDesign, you probably have a web license, and then automatically it's gonna update. So you can't stay old. You have to stay current.

PHYSICAL DESIGN

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SCAN / DIGITIZE DESIGN

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IMAGE EDITING

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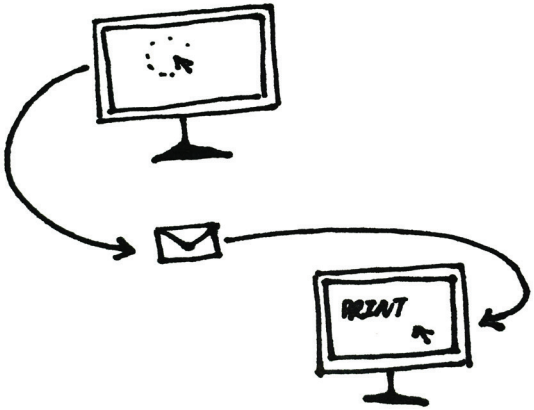
COLOR SEPARATION

↓

READY TO PRINT

VS



How do you source all the other manufactured materials to the press?

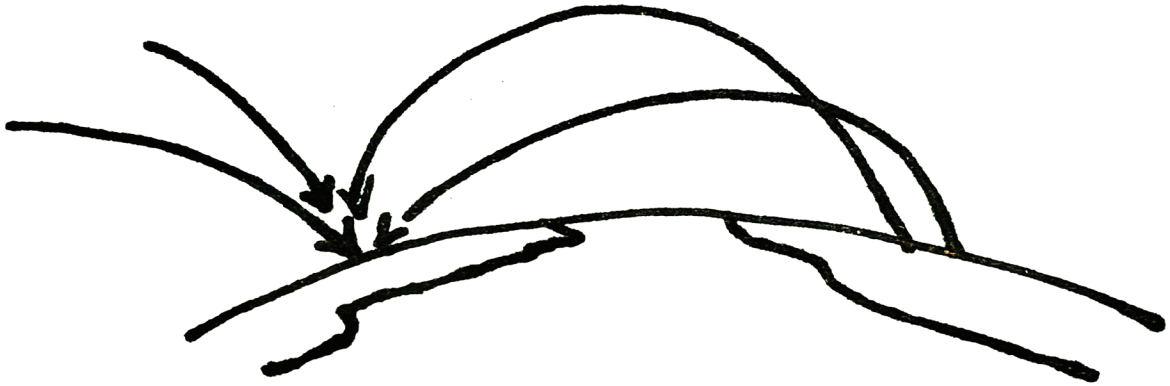
So every manufacturing company has a set of standards and we have our own set of standards. We're going to try to let our vendors know what our set of standards are and what our tolerance levels are. Over time and experience, you're going to pick the better vendors and get rid of the not so good vendors.

Let's just take paper for example. 30 years ago, there were hundreds of papers around, so you could get very high quality. You can get very low. So they graded paper as a #1 sheet, a #2 sheet, a #3 sheets and the #1 sheet was very good paper. However, they had certain tolerance levels that they had to work with. So they would meet certain tolerance levels. Then we would make sure when that paper came in that it met our standards of that tolerance level. Is it the right weight that we want? Is it the right shade? Those are all things that we would visually look at. If we get a piece

of paper on press and it's not holding the ink or it's crumbling or the coating is falling off, we then would reject that paper.

So if it's not meeting our quality standards, we then have to make a decision. Are we gonna keep this paper or reject the paper? If that vendor cannot get us replacement paper or that vendor continues to give us bad products, we're not gonna continue to work with that vendor. A good shop is gonna make sure that we're only as good as our suppliers are, and that suppliers are only as good as their suppliers are. At the end of the day, I can't come to you and say I can't print your yearbook this year because the paper guy didn't do this.

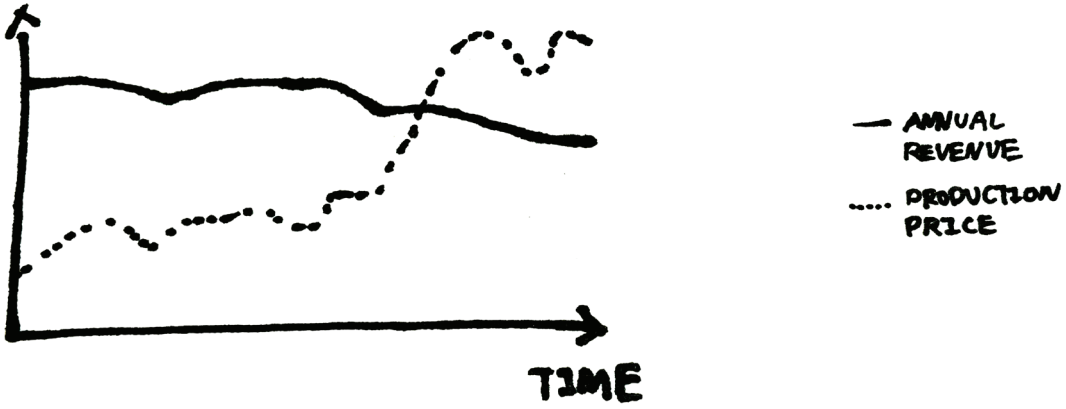
The mindset has to be, I want it to be perfect, because if you go into something already thinking, I'm gonna go to work today, and I'm only gonna produce 90% good stuff. You say to the kids and they say, see, dad, go produce 90% good stuff, 10% shit. That's how management evolved over time, and how companies became more strengthened in all of the manufacturing process to get it better and better and better. So having good suppliers, good equipment, and good employees is what makes manufacturing companies good, and you can't be good without all three of those working.



I learned that a lot of press now is sourcing their printing material outside of the US. We are also experiencing a huge shift in our printing culture. Instead of physical printing, we are leaning more towards digital screens which are less expensive. As someone who worked in commercial printing for the past 25 years, would you describe the price for printing becoming more expensive/inaccessible in the past twenty years?

So the price of printing has gotten less and less expensive, and the reason it's gotten less and less expensive is the consumer is wanting to pay less and less for what they want.

Paper companies used to have #1 sheet, #2 sheet, and #3sheet. Meridian always bought the #1 sheet, and we always print it basically on a #1 sheet. Then another printer came along to a client one day and said, but we can get you that same job. We can put you on a pretty good paper. It's not the same, but we can save you a hundred dollars. And a client said, great. Save money on one job. We talked about the paper quality, but you know what? That doesn't matter. It's fine. Next thing you know, they got them. Then the third printer came to a client and said, I can save you another hundred dollars. I can put you on this paper. And sooner or later, the finance people at a client said, we're saving money.


TIME
ANNUAL REVENUE
PRODUCTION PRICE

The designers are up here, saying "No. We want the best."

We're down here.

Accountant is saying this is only we're gonna pay for this, and it came here.

So how does Meridian now compete? Meridian now has to drop down the grade of paper. How does that paper merchant survive? They have to start making cheaper paper, and cheaper paper, and cheaper paper. And so it's driven the price down. It's driven the price down. It's driven the price down. Thirty years ago, you bought a refrigerator. It lasted you thirty years. Today, you buy a refrigerator, it lasts you three or five years. We already have a planned disposal. Things built today don't last, so it keeps the market going to get another piece. Printing is one of those things. Consumers are wanting to pay less and less and less, but we have certain fixed costs to get there.

The machines cost a certain amount of money. The employees cost a certain amount of money. I gotta look at my materials, and I'm gonna say, how do we get my materials? Instead of printing at 2,000 sheets an hour, I need to print 15,000 sheets an hour. So I gotta buy a press that can get me faster. You're gonna get employees to step up and make sure that they're running those presses at that speed level. It is becoming more and more demanding on manufacturers to get better controls in place to be able to squeeze out

the lowest cost they can to be successful enough to stay in business.

It continues that way, and we as consumers all sometimes buy a price and sometimes buy a quality. Everything you buy, sometimes it's because it's the best price. Sometimes it's like, I hate that yogurt, I don't care that it's 10¢. I need to pay a dollar for the yogurt because this is much better. That's something that you really like and that you really wanna be. So you'll set a price limit for what you're gonna spend. But there's different qualities in everything that's manufactured.

It's really interesting to learn the manufacture side of the press and how it becomes more and more complicated to produce a final product that meet with the high standards.

Yes. We have to work with all of those materials that either help us or hurt us. We still make the project look good but also be able to compete with everybody else. I mean, one press goes out and gets three bids on a project. So we have to get it to a price level that everybody says, okay. That's competitive.
So the question is, why do we not have paper mills in the US? Why do we not have as much manufacturing in the US? That's a question you guys should be focusing on as young adults as to where is America going and what is gonna happen.

We're not gonna get into politics, but manufacturing has a tenfold benefit. We manufacture a book here. We keep a paper company in business. We keep a company in business. We keep a plate company in business. We're keeping that paper company in business. We have so many things we're keeping in business. The paper company in business is employing a thousand people over there, so they're keeping a town in business.

What's happening is we, Americans, are squeezing the pricing. We want everything faster, and we want everything cheaper.

When I was a kid growing up, I could go to local hardware store, and I could find anything I wanted in that local hardware store. It didn't matter what it was. Then what happened? Home Depot came.Home Depot was the greatest thing in town because that was a huge place, and they carry 10 times more product.

But you know what?
The don't carry that little thing that goes into

this little thing

that goes into this little thing,
because they don't sell that many of those

little little *little*

little things.

The little corner shop had someone that knew everything. Home Depot opened up. Day one, they knew everything. Over time, you go to Home Depot today and you ask a question, they'll tell you what aisle it is, but they don't they can't tell you how to use it, where the old hardware's there used to tell us.

So we gave up the local mom and pop shops and go to the big box. Now we're going from the big box to online, and then what's the next step?

We're pushing pricing lower and lower. The only way they can get that washing machine on sale that you can buy through Amazon, it has to be made offshore somewhere. Because we, living in this country, wanna make a certain wage. We need to make a certain wage to survive.

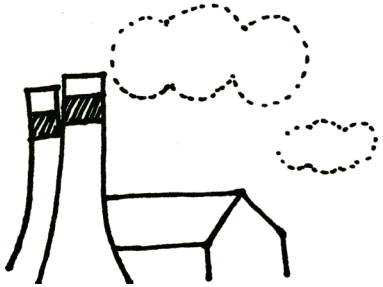
Our housing pricing here is here.

Our food pricing here is here.

If you go to a printer overseas in some countries, they have 10 people running a press because they have zero safety protocal. What happens to their chemistry when they're done? They ship it out to the the back door. They dump it somewhere. So when their environmental laws don't exist, the pollution doesn't exist. That's what we have to compete against.

We Americans try to blind eye to all of that. That's fine. I just bought my washing machine for me.

America is becoming more of a service industry, like graphic designers than a manufacturing industry. It's a big shift that's gonna be difficult to continue to have the quality of life in America. I'm not saying one's right and one's wrong, but when you start to see more and more people having difficulty getting a job that afford them to get a house, whereas manufacturing used to be able to give them a stable work day in a work amount.



TO CHANGE

How would you, as the owner of Meridian Printing, deal with all the changes and circumstance we have right now?

So remember I told you we're probably not gonna print your yearbook in this location. We're gonna print it at one of our locations. A week and a half ago, we sold Meridian Printing. So I'm not the owner of Meridian Printing.

This is part of the change that we're talking about. We looked at GHP; GHP in West Haven, Connecticut is a printing company that's about four times the size of ours. So we're the owners of the company in the last twenty years. When we bought the business, we bought brand new equipment. We took money from the bank. We took debt. We bought equipment. Seven years go by. We buy newer equipment, trade that in, buy new equipment, take it down from the bank.

Then a digital printer came around, and we said we're gonna get a digital printer. So we bought a digital printer. We've continued to buy new equipment, new equipment, new equipment to stay competitive and to give quality of product to the people.

Our employees who started here thirty five years ago when they were 30 years old and now sixty five years old. So we have employees that 90% of our workforce is 60 years and older which means they're gonna retire this week, this year, next year, five years.

We have 40 employees, and we lose 10 over the next five years. How are we gonna replace them? They call you. You're young. You wanna run a print. How do we find someone young who wants to come in and run a print. It's harder and harder to do.

As our employees retire, we get a replacement. It's harder and harder to do. As our equipment gets up there in age, we gotta replace that. It's harder and harder to do to get it into the right range to where we could keep the job.

All of the retirement people force us to look at what's the next step. We felt that this was the next step. We're only putting millions of dollars into this and then worry about hiring employees. Let's make one bigger, better company, and some of our employees will go down there to work, and some of them are gonna retire. That's an answer you weren't expecting to have, but that's what happens with businesses. They mature with an ownership, and then what's the next step? How do they transition to their children or to the next owner or to the next phase of life?