

DEEP IMPACT WHEN IT MATTERS MOST

Good evening. Before I start my EW lecture, I would like to take a few moments to talk about the invasion in Ukraine, which has shocked us all.

Wolters Kluwer stands with Ukraine and the international community in condemning this unjustifiable aggression, which has created a humanitarian crisis in the heart of Europe.

Over the last week, Wolters Kluwer has been carefully considering the future of our customer relationships in Russia and Belarus. We will discontinue doing business in Russia and Belarus except for certain of our health products where there are compelling humanitarian reasons.

We continue to support Ukraine and the region in many ways. The local teams in the directly affected region and the rest of our teams in Europe and around the world are offering a wide range of support including providing financial assistance, housing, supplies, clothing, equipment and workspace, and more.

Wolters Kluwer is also making substantial donations to aid organizations supporting refugees and others impacted by the Russia's invasion, including the Red Cross.

Let's turn to why we are here together tonight...

It's great to be here today to give the fifth EW economics lecture. It's an honor to follow in the distinguished footsteps of those who have spoken at this occasion before: the leaders of Shell, KLM, Philips and MKB Nederland.

The fact I'm standing here before you today is something of a break with tradition. I'm the first woman and the first non-Dutch person to have the privilege of delivering this lecture. I hope to offer you some fresh perspectives on a world that technology is changing at breakneck speed.

That gives us lots to talk about. From the trends changing the way professionals work, to trust and ethics in the use of technology. From the

pandemic to an infodemic. From the relevance of technology for work, to its impact on the whole world. And also I hope you'll appreciate my points of view around diversity, inclusiveness and belonging. Not just for society as a whole, but also very much for business. So, lots of topics to address about some urgent real-world challenges.

Before we jump into these topics, however, the real-world challenge that has loomed largest over the past two years is, of course, COVID-19. Who could have imagined, two years ago, what lay ahead? How COVID would affect every aspect of our lives? How it would change the world in ways we could never have dreamed of?

The pandemic has created unprecedented problems. It has exposed disturbing cracks in the fabric of our societies. But it has also crystallized some exciting new ways of thinking, and positive change. And it has sped up many trends. Key among those is digitalization. We were already shifting towards digital ways of working and living... but it's breathtaking to think how fast that shift has accelerated over the last couple of years.

I can tell you that we at Wolters Kluwer are no strangers to digitalization. And we're certainly no strangers to change. Our roots date back to 1836, when J.B. Wolters founded a bookstore-publishing house in Groningen. His company was extremely successful in educational publishing. Education was evolving rapidly, and Mr Wolters focused on high quality content that shaped the educational sphere. Did you or your parents or grandparents – or maybe all those generations – learn your ABC with '*Aap-Noot-Mies*'? If so, you have J.B. Wolters to thank.

I was born and raised in the United States, so I didn't learn my ABC that way. But I did learn to read at the age of four. My mother taught in kindergarten for thirty years, and she stimulated the education of all her children. Her parents emigrated from southern Italy to the United States. As you can imagine, she grew up in modest circumstances. So did I and my siblings. My mother made sure we all worked hard at school and university. That we all got good grades and advanced qualifications, so we could make careers that improved our lives. That's why reading and education have always been very close to my heart.

I still read books for pleasure. However, in the professional world as a whole, we've moved on a very long way. Nowadays, we acquire most of our knowledge from multiple virtual platforms, offerings and venues.

And that's at the heart of the transformation that Wolters Kluwer has made in the past two decades. We've evolved a long, long way from our origins in the eighteen-hundreds. We have morphed from a publisher into a global provider of professional information, software solutions, and services. So nowadays when you think Wolters Kluwer, you think: software company. Serving doctors, accountants, lawyers, and professionals in the tax, finance, audit, risk, compliance, and regulatory sectors.

Those sectors are pretty different, you might think. Well, in many ways they are, naturally. But the professionals in those diverse fields have much more in common than it might appear.

Which characteristics do they share? They all work in industries that affect the lives of millions of people every single day. They have to make important decisions – often under extreme time pressure. Put another way: they need to get it right – and fast. That means they need timely insights and information that they can act on. So they can make informed decisions and deliver impact when it matters most.

Of course, it's true that a financial auditor won't need a tool that helps them diagnose a patient's illness. A doctor doesn't need to know the finer points of the tax code. But professionals in all the sectors we serve have too much complex information to deal with. And they all need to do more with less. In other words, with fewer resources.

Take law firms as just one example. Clients of lawyers are becoming ever more demanding. They don't want long, complicated legal notes. They want advice that focuses on action. They're increasingly critical of the hours they get invoiced for. All this means lawyers need to provide more value in less time. No longer billing by the hour, but concrete outcomes and impact.

You and I may not be lawyers, doctors or accountants. But I certainly recognize these pressures. And I'm guessing many of you will, too.

These days, we're all bombarded by so much information that it can be very hard to know who to trust. What to trust. Social media in particular exposes us to a never-ending flood of facts, opinions and half-truths. Speculation, rumors, misinformation and disinformation. These swirl around the world and into our smartphones, every second of the day.

That's a constant reminder of the incredible power of technology. But power, as you know, is not always 100 percent positive. And so very often, technology can feel like a double-edged sword. Yes, it can do so much to benefit people and communities. At the same time, it has created some daunting challenges.

What's so difficult is that the volume and complexity of information is increasing at an ever-faster pace. The pandemic is a clear case in point. It expanded the global need for reliable information - while shrinking the timeline for creating it. Doctors were faced with a dizzying volume of research, possible treatments, symptoms and patient conditions. The findings were unpredictable and often reversed course. That was a major problem for clinicians everywhere. Things were evolving rapidly, and they needed to figure out what to do - fast.

To illustrate the scale of the challenge: in the first year of the pandemic, there were 140,000 scientific publications and pre-prints related to COVID-19. These popped up on social media and the evening news every night. Before the data to back them up or proper peer-review were available.

But the information overload pre-dates this pandemic. Even before COVID, the world was suffering what has been called an 'infodemic'. That's a huge challenge for professionals in their working lives. Especially when they need to make important decisions under great time pressure. In fact, it's a broad issue for all of modern society. For all of us.

And it's one of the reasons for the crisis of trust in societies around the world. Declining trust in governments. In experts. In institutions of all kinds. Declining faith in science - as we see in the skepticism around COVID vaccines. It's alarming to witness. We might have hoped that when the whole world was facing the same problem at the same time, we'd all pull together. But in the face of a global emergency that has caused so much suffering, we seem to have splintered. Polarized. Retreated into national and thought bubbles.

Sometimes it seems almost paradoxical that there's so much peddling of conspiracies and falsities when so much reputable data is available. But the problem is finding the needles in the haystack. The world is awash with data, so it's not about quantity; it's about quality. Being able to access the right data. Information you can trust. That is so crucial.

Think of doctors. The volume of literature is too vast and complex for the average doctor to master. Even if they could read everything they need,

they rarely have the time or skills to put each individual study into the context of other studies. Or to apply that in treating patients.

Every year, around three million peer-reviewed science and medicine articles are published globally. Just as an example, imagine being a cancer doctor faced with tens of thousands of new oncology papers each year. How can you possibly navigate your way through all that? How do you find the research that is most credible and relevant to your patients?

That matters. It can even be a matter of life or death. 86 percent of American healthcare industry stakeholders say incorrect or bad quality data is a source of risk to patient safety - or can increase costs. 90 percent say that without the right clinical information in the hands of their caregivers, patients can be at great risk.

Even when lives aren't literally at stake, the challenges are immense. In banking, for example, there's a relentless flow of changing regulatory and legal obligations. Banks are in a constant struggle against money laundering. Criminals using the banking system to launder illicit profits undermine the integrity of financial markets. This perpetuates economic inequity and injustice. Regulators are scrutinizing the banks ever more closely and strictly. So the banks need to invest massive resources of time and manpower in keeping abreast of anti-money laundering rules, and complying with them.

After the financial crisis of 2008, reams of regulations were introduced to shore up the financial system. And that trend continues apace. Deloitte said in its 2021 banking regulatory outlook that "regulators continue to refine existing regulations implemented in the wake of the global financial crisis". And their focus now is on "areas such as climate risk, digital currencies, technology, and innovation". Financial companies have to stay on top of all those developments.

Let's dwell for a moment on just one of them: digital currencies. Back in 2008, bitcoin and other cryptocurrencies weren't even dreamt of. Let alone non-fungible tokens, the metaverse, or other technological developments that grab headlines in 2022. Yet think of the challenges they present in today's financial services landscape. These technologies are moving at lightning speed, and regulators are racing to keep up. But one thing's for certain: the burden of regulations that companies must comply with will only get heavier.

This need for relevant, quality data may feel like a very 21st-century problem. Yet in many ways it wouldn't be news to the family-run firms of

Wolters, Noordhoff, Samsom and Kluwer. Back in the 19th century, they planted the roots of what would become Wolters Kluwer. When Mr Kluwer established his company in Deventer in 1891, his vision was 'Publish great quality content, or don't publish at all!'

In other ways too, his approach still resounds in what we do, centuries later. Kluwer developed a deep network of subject matter experts and authors. He experimented with new ways to bring content alive. Like a pop-up book for medical publications. Those principles of expertise, trusted knowledge and innovation still guide us today. Wolters Kluwer has grown to a company employing more than 19,000 people around the world, serving customers in over 180 countries. Yet the emphasis on quality information, deep subject knowledge and innovation has never altered.

What has profoundly changed – and what has profoundly changed us – is technology. So far, I've talked much more about the challenges technology has created for the world. But technology is a powerful solution. It has opened a world of unimagined possibilities and opportunities. And I'm strongly convinced it's a critical factor in solving our societal issues.

Something I think neatly sums up the double-edged sword of technology comes from an annual survey we run, called the Future Ready Lawyer study. Last year's survey covered 700 legal professionals in nine European countries and the US. They were asked to identify the two biggest trends that would most impact their organizations in the next three years. Their answers were: 1 – the growing importance of legal technology. And 2 – responding to the increasing quantity and complexity of information.

That feeds straight back into what I said earlier. The two main pain points for professionals in the sectors we serve are an overload of complex information, and the need to do more with less. Using legal technology can help lawyers cope with the data overload, and do more to increase their productivity.

It's no wonder that technology has been essential to Wolters Kluwer's transformation into a software company. When I became CEO in 2003, 70 percent of our revenues came from print and 30 percent from digital. Nowadays, we derive more than 90 percent of our revenues from digital. And we continue to use technology to transform, for the benefit of our customers and our communities.

Effective use of technology in products can create better outcomes. It can create higher quality of life. It can deliver productivity benefits. All those positive effects can be really amazing. Let me give you a few examples.

Firstly, Health. Delivering higher quality of life. More than two million physicians worldwide use our clinical support tool UpToDate to diagnose and treat patients. It's used by 99 percent of hospitals in the Netherlands. Doctors turn to this software tool for trusted answers when they face a challenging clinical question, or need to confirm their proposed approach. UpToDate is powered by a huge community of over 7,300 authors and editors around the globe. They write and edit evidence-based information that doctors can confidently use. A topic review is accessed about 1200 times in 180 countries, every single minute. The benefits are concrete and measurable. More than 100 studies have shown the tool improves decision-making, leading to better patient safety and quality of care. Fewer diagnostic errors. Reduced mortality. And shorter hospital stays.

Or think back to the social curse I mentioned earlier: money laundering. We empower financial services institutions with tools and information to help combat this massive issue. Our experts actively monitor regulation in 30 countries. They assess the potential impact of future changes, so that banking professionals can ensure they comply with all relevant rules.

Or take the environment. We help make organizations safer and more sustainable through technology innovation. For example, through our Enablon solutions, we help oil and gas companies achieve fewer chemical spills. Up to 75 percent fewer, in some cases. We do this by using real-time data from assets, machines, Internet of Things devices, and third-party sources. In this way, companies can reduce their greenhouse gas emissions. And that improves air quality for society as a whole.

What you'll see is that technology is absolutely central to initiatives like these. Technology is used in them to create a positive impact on people, on society, on the environment.

They also illustrate how we fulfil our company purpose. Wolters Kluwer is a purpose-driven company: the work we do really helps people. That's why our tagline is 'having a deep impact when it matters most'. I very much see this is a social responsibility. Because I strongly believe that companies must take their responsibility to make a difference in society. In both the short term and the long term.

When COVID hit two years ago, so much started to change so quickly. As a company, we felt a deep commitment to helping the healthcare sector and society more broadly. So our teams quickly delivered more than 100 COVID-related initiatives to the people who needed it most. We immediately added COVID-19-related information to our clinical support tool. And we gave free access to healthcare workers who weren't customers. That information was viewed more than 19 million times in the first year of the pandemic.

Of course, this was never 'just' a health crisis. When COVID struck the Netherlands, we adapted our applications for Dutch local municipalities in just a few weeks. We did that so municipalities could process the TOZO – temporary benefit applications for self-employed people – as quickly as possible. People who needed to apply for support were therefore able to complete their electronic applications correctly.

-

Actions like these helped many, many individuals in the alarming early days of the pandemic. But the power of technology goes far beyond the here and now. It can help us tackle challenges of the future. And that future is already here, in the shape of advanced technologies like artificial intelligence.

Artificial intelligence, or AI, enables machines to learn from experience. By using technologies such as deep learning and natural language processing, computers can be trained to process large amounts of data. Recognize patterns. And so perform human-like tasks.

We often hear about AI in things like chess-playing computers or self-driving cars. But think of the role it can play in healthcare: proactively identifying acute and chronic health conditions, quickly and accurately. For major public health threats, it could serve as an early-warning system. The Financial Times recently reported on an AI-based program that can predict the highest-risk coronavirus variants simply from their genetic code. That could alert health authorities and vaccine developers to potential risks - months before variants spread.

AI has huge potential to deliver broad-based business and social value. And the benefits are already being felt everywhere. From agriculture to business operations and disaster prevention. From public safety to transportation. That opens countless performance and productivity opportunities, right across the board.

When millions of professionals are facing information overload and need to be more productive with fewer resources, AI technology can really help. It can automate repetitive manual processes. Or teach machines to perform routine tasks. Like basic compliance work for auditing firms, or reviewing legal contracts.

At Wolters Kluwer, we're using AI in all kinds of areas. For example, in natural language processing - the software that helps a machine 'read' text. In speech and image recognition. To automate routine processes. And in predictive analytics.

For instance, we've created an AI-enabled product that helps accountants stay on top of the many changes in tax codes. It scans the tax code and looks at changes being introduced. After that, it goes into an accounting firm's customer files to see which customers will be affected.

Using technology like this, or say to automate processes, frees up professionals to focus on the valuable work that only humans can do. That's good news because it creates more stimulating work. And it satisfies the clients demanding that their accountants or lawyers generate more value for lower costs.

-

But there are important provisos. In each case, it's key to use the right specific mix of technologies that solves the specific problem for a specific group of people. The world won't be helped by just adopting advanced technologies like artificial intelligence for the sake of it.

Technology needs to be used for a clear reason: to improve the world. To help humanity - not make people obsolete. Advanced technologies offer great benefits in terms of cost, efficiency and productivity. But they're not a magic wand. They cannot and should not replace the vital role of people working in complex fields such as medicine, law, accountancy, finance, tax, risk, compliance.

We can teach intelligence to machines. But subtleties can escape the machines. Which brings us to the ethical side - something to be very careful with. We need AI to help us avoid the negative characteristics of human beings. Not amplify them.

Like several of the world's largest companies, we at Wolters Kluwer are committed to responsible artificial intelligence. This approach revolves around key principles like fairness, transparency, a focus on human

beings, respect for privacy and security, and benefit to humans. And I would add compassion, too. Responsible AI should be infused with the elements of being human, such as compassion.

When I joined the professional world, and especially when I became increasingly senior, I had to learn how to cope with a great deal of bias that I often struggled to understand. It's something I myself work hard to prevent. I want my teams to create an inclusive culture where everyone belongs, and can be themselves. You may have heard about technology companies that tried to build their recruitment systems using artificial intelligence to pre-screen candidates. They thought they would get objectively screened, more diverse candidates. Instead, they got white males. Because the people who created the algorithms programmed in their own biases.

-

The point is: we need technology to keep powering innovation. But with the primary aim of empowering people. What we want is humans and machines working together. And, to close the loop, it's human creativity and innovation we need if we are to reap the full potential of technology, for the good of our world. To really harness the positive power of technology and innovation, we need to use our human qualities such as trust, talent and teamwork.

At my company, we focus strongly on stimulating and nurturing innovation. Wolters Kluwer may have been born in the 19th century, but the dynamic atmosphere often makes us feel like a 185-year-old start-up. Every year, without fail, we invest between 8 and 10 percent of our revenues back into research and development. Every year, we hold Global Innovation Awards, where we recognize and celebrate the best innovative ideas among our employees, all over the world. Many of these ideas evolve into actual real-world products for our customers. That's very exciting for all of us.

I've also become ever more aware that you need diverse teams of people if you want to drive true technological innovation. Cookie-cutter groups won't produce ideas that break the mold. Diverse teams are more innovative. They make better decisions. Which leads to better business results. A lot of research has shown this in recent years. According to McKinsey, for example, businesses in the top quartile for gender diversity are 15 percent more likely to outperform their peers. Businesses in the top quartile for ethnic diversity are 35 percent more likely to outperform peers.

So making sure you have all types of people working together in teams isn't a nice to have. It's vital to success.

I know it sometimes seems our world has lost its belief in teamwork and cooperation. In overcoming borders and ideologies for the common good of humanity. With climate change, we apparently find it so hard to pull together and tackle this threat to our entire planet. With COVID, richer countries inoculate their populations several times, while poorer nations struggle to give even first vaccines to their people. Then there's the internet. In theory, it has demolished boundaries. Yet our world seems to be ever more tribal. With countries and social groupings peering inwards, rather than looking outwards.

-

I don't want to sound pessimistic. I can assure you, I'm an optimist. I believe in the power of trust and cooperation. And in the power of openness and diversity. This is the key to healthy, flourishing societies and businesses.

As you might imagine, I often get asked about diversity. Unfortunately, female CEOs are still rare in the Netherlands, and around the world. But women are no rarity at my company. 50 percent of our executive board and half of our division CEOs are female. So are 38 percent of managers. From this April, women will be in the majority on our Supervisory Board, and that board will be chaired by a woman.

If you look at our complete workforce, it's 46 percent female. Wolters Kluwer is the number one company in the Netherlands for gender equality, according to Equileap, which researched the 100 largest publicly traded companies. And we were recently recognized as Best Practice Leader in the European Women on Boards gender equality index report.

But overall, women's participation in corporate leadership remains low. That's true of the world at large, and certainly of the Netherlands. Change is just going too slowly. That's why I'm a strong advocate for diversity at all levels in the business world.

That said, gender shouldn't be the only focus. To reap the full benefits of people's multiple talents, we need to look far beyond male versus female. Talent is blind. It doesn't care about age, nationality, ethnic background, religion, or sexual preferences. Surely it's crazy not to nurture talent wherever it lies?

And there's another dimension. International businesses have diverse customers. If your customers come visit you, or you visit them, they'll surely take note if all they see is a homogeneous group... and not in a good way. So diversity can directly impact customer relationships.

That doesn't mean we should over-focus on people's differences. What I find is that there are more similarities than differences. No matter where employees come from or where they live, everyone wants to be engaged. To feel respected and able to trust management. Crucially, people want to do work that matters. To feel that their work has a purpose.

Over the years, as I've said, Wolters Kluwer has transformed into a software company. But it's people who have created that transformation. And our workforce has transformed in synch with our company. Now, we have more technology roles than editors, for example. Around one third of our people nowadays occupy tech roles. It's our single largest category of employees.

These technology experts are helping us make our second wave of transformation. In our first wave of going from print to digital, we basically took all our expert content and made it accessible online. Now, we're in the midst of the second wave. Combining our expert content and technology to create what we call expert solutions. Developing tools, services and software that deliver enormous value in terms of productivity. Or insights. Or better outcomes.

For this wave, we collaborate very closely with our customers. In the Netherlands, we worked with 800 lawyers and legal experts to create our latest product, InView. Again, it's about creating positive impact through collaboration between people. With customers. In and across teams. And with technology.

I'm not saying this is easy. People have been around for hundreds of thousands more years than the machines, evolving gradually. It's difficult for our human brains to keep pace with the machines we have created. Technology moves fast. We need to work hard to keep up. Throughout history, successful leaders have always needed the ability to really understand customers, and to get things done. But the successful leaders of the future absolutely must understand technology. Whatever sector they're in. And they need to keep on learning every day.

I'm always learning from my team, and we're all learning from our customers. Our markets are very dynamic, largely because of technology. Most of the technologies that are crucial to our company now didn't exist when I became CEO. I knew nothing about AI five years ago. We set up a center of excellence for AI at that time. Without exaggeration, I can say I still learn something new every day. Lifelong learning and education are so important.

Without good education, no society can be innovative and successful. I know Dutch people sometimes say education here has deteriorated over the years. I didn't go to school here so I can't give an opinion on that. What I will say is that I'm consistently impressed by how well-run society is in the Netherlands. Infrastructure, healthcare, education.... you name it. It's common for people to criticize their countries, and nowhere it is perfect. But I'm sure most countries would be delighted to have the standard of living of the Netherlands.

Like all governments in our difficult times, the new Dutch coalition has plenty of challenges ahead. But it's encouraging to see a cabinet with lots of new faces, and strong diversity in areas like gender and background.

I had dreams of a career as a public servant, originally when I was young. I never acted to make them a reality. Instead, I entered management consultancy. I pretty soon found my way to Wolters Kluwer, where I've been ever since. Still, my desire to make an impact has always been there. And I feel corporations do have a clear role in making social impact. Business has a strong responsibility to contribute to the whole of society, not just to shareholders. That has long been the ethos in the Netherlands. These days, much of the world embraces the need for companies to sustainably play their part in tackling social and environmental issues. I welcome that wholeheartedly.

Of course, companies cannot solve enormous problems like social inequality or climate change on their own. To make meaningful impact, they need to partner with government and other stakeholders. And they need to harness all the power of technology to help them do it.

Because as I hope I've convinced you today, I passionately believe in people, in all their glorious diversity, working together. Across teams. Across organizations. Across borders. And with technology. For the good of the world. To make deep impact when it matters most.



Thank you.