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NEWSLETTER

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Reflecting on 2024 Milestones:

# Prof Daryl Balia



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- Embracing the future: Digital transformation
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# PROF DARYL

## REFLECTS ON 2024 MILESTONES

As 2024 draws to a close, it's a perfect time to reflect on the remarkable journey we've had since the beginning of the year. From groundbreaking advancements in technology to transformative initiatives that have enhanced our university experience, this year has been nothing short of extraordinary. In this cover feature, Prof Daryl takes us through the milestones we've achieved together and highlights the exciting goals that lie ahead. He writes:

### Dear Colleagues,

As we wrap up the final edition of our magazine for 2024 and approach the close of another remarkable year, I'd like to take a moment to reflect on our achievements, challenges, and the exciting opportunities ahead. This year has been one of growth, innovation, and transformation for our university, especially in the realms of technology and digital services. Together, we have not only maintained our commitment to excellence but also built a strong foundation for an even more dynamic future.

Throughout 2024, we witnessed significant advancements in how we leverage technology to enhance education, research, and administration. From launching new digital tools that improve the student and faculty experience to upgrading our network infrastructure, we have made strides in making our university more connected, efficient, and future-ready.

Among our key accomplishments this year are the successful rollout of Anthology CRM and the advancements made with the new Student Information System (SIS), which will go live by the end of 2024. All students will begin using the new SIS for registration in 2025. By investing in cutting-edge infrastructure, we are creating an environment that empowers our staff and students to lead in discovery and innovation.

While we celebrate our progress, we are equally excited about what lies ahead. In the coming year, we will focus on further integrating artificial intelligence and data analytics into our operations through the DASOM project.

These technologies hold immense potential to revolutionise everything from administrative processes to how we teach and learn. We're already exploring AI-driven solutions to enhance student advising and optimise campus services.

Additionally, we will be announcing our new Learning Management System (LMS), with groundwork beginning in earnest for its implementation over the coming years.

**As we look ahead, we also remain focused on inclusivity. Ensuring that our digital transformation benefits every member of our community is paramount. We are committed to making our technologies accessible to all and will continue to prioritise initiatives that close the digital divide and support diverse learning and working styles.**

In closing, I want to express my gratitude to each of you—students, faculty, staff, and partners—for your resilience, collaboration, and forward-thinking spirit. The success we have achieved is a testament to our shared dedication to excellence and innovation. As we look toward the new year, I am confident that we will continue to harness the power of technology to advance our mission and elevate our university to new heights.

Wishing you all a restful break and a prosperous 2025.  
Sincerely,

*Prof. Daryl Balia*

# UNBELIEVABLE AI FACTS YOU NEVER KNEW!

## #1 AI Was Born in the 1950s

AI research started in the 1950s, with pioneering work by computer scientists like Alan Turing and John McCarthy. McCarthy, often called the “father of AI”, coined the term “Artificial Intelligence” in 1956 at the Dartmouth Conference, which is considered the birth of AI as a field.

## #2 AI is Used in Art and Creativity

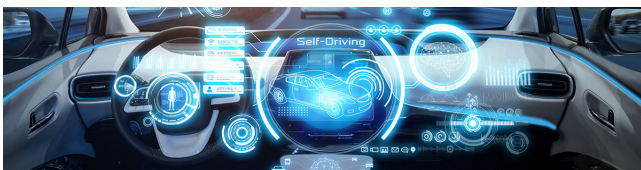
AI isn't just about solving technical problems—it's being used to create art, music, and even write poetry.

## #3 AI Powers Many Everyday Applications

AI powers technologies we use daily, like virtual assistants (Siri, Alexa), personalised recommendations on Netflix or Spotify, and navigation apps (Google Maps, Waze). Most people use AI without even realising it, from filtering spam emails to predictive text on smartphones.

## #4 AI is Fuelling the Autonomous Vehicle Industry

AI plays a critical role in self-driving cars. Autonomous vehicles use AI to process data from sensors (cameras, radar, and lidar) and make split-second decisions, such as avoiding obstacles, understanding traffic signs, and navigating roads.



## #5 AI is Helping Fight Climate Change

AI is being applied to predict environmental changes and model climate scenarios. For instance, AI models are used to monitor deforestation, optimise energy usage in smart grids, and even develop more sustainable agricultural practices by analysing crop data.

## #6 AI Beat Humans at Complex Games Before Expected

In 2017, OpenAI's AI agent defeated the world's top players in Dota 2, a highly complex video game with limitless strategies. Similarly, DeepMind's AlphaStar AI became one of the top players in StarCraft II, a strategy game considered far more complicated than chess.

## #7 AI is Changing the Job Market

While AI is automating repetitive tasks and transforming industries like manufacturing, finance, and customer service, it's also creating new jobs. Fields like AI ethics, machine learning engineering, and data science are in high demand, showing that AI is both a disruptor and a job creator.

## #8 AI Can Imitate Human Voices

AI can now generate human-like speech that is nearly indistinguishable from real human voices. AI voice synthesis technologies are used to create digital voice assistants and even provide voices for people who have lost the ability to speak.

## #9 AI is Helping Preserve Endangered Languages

AI models are being used to preserve endangered languages by digitising old manuscripts, translating texts, and even generating new content in these languages, helping communities retain their linguistic heritage.

## #10 AI Can Create Its Own Jokes

AI models like OpenAI's GPT-3 can generate jokes, puns, and even entire comedy scripts! While some jokes may come off as a little strange, AI-generated humour has steadily improved, even creating puns that can surprise humans.

## #11 AI Shops for You (Almost)

Ever notice how online stores suggest products you might be interested in? That's not just a lucky guess. AI algorithms track your browsing history, past purchases, and even search queries to predict what you want to buy next. This can be helpful for discovering new products you might enjoy.

It's clear that AI has only scratched the surface of its potential. AI is just beginning its journey of discovery, and the possibilities are limitless.

Source: <https://www.openxcell.com>, ChatGPT and Perplexity



# HARNESS THE POWER OF DATA & AI

I am **Commence Nkomo**, the Chief Data & Analytics Architect, and new to the NWU. I subscribe to the “simplicity is the ultimate sophistication” principle and will be presenting this topic in “plain and simple English”.

For the most part, when people talk about AI, they are talking about data analytics. This is not surprising as AI is related to data analytics in that it often uses data analytics techniques to process and interpret large volumes of data. Data analytics is a broad term covering at least five different pillars in the modern analytics model: descriptive, diagnostic, predictive, prescriptive, and cognitive analytics. Each type of analytics plays a role in how a business can better understand what the data reveals and how one can use those insights to drive business objectives.

AI is one of the most abused terms in our day.

One of the secrets to successfully market products or services that people discovered around 2019 is: take the worst idea one can think of and add the phrase “with AI”. It will sell. I can sell you “goat milk... with AI.” [Hey, I am not promoting the practice... just illustrating.] I remember I once had a recurring plumbing situation at my place some few years back. One of the plumbing companies that I contracted with had claimed that they had some cameras and AI software that could analyse my pipes and recommend a very comprehensive solution.

You will understand when I say that they charged the highest rates (they had thrown the magic word - AI). Sad to say, it was money that went down the drain for me... they had no AI solution, not even a single camera!

**So, put simply, AI is a branch of computer science that is focused on programming computers to create intelligent machines capable of solving problems and performing tasks that would typically require human intelligence. As an example, AI can see patterns in big data that would take humans weeks or months.**

Such capabilities are created and trained by humans at the onset until the models have been trained well enough that they can perform the tasks and make decisions on their own. It's like teaching a Grade 1 child. At first, it's difficult, but with homework, practice, and adult supervision, the pupil learns. Eventually 5 + 3 becomes 8 and it's automatic, without thought or time.

Keep looking out for the next editions – and you'll be the smartest person at the dinner table or at least know your facts about data and the digital world.

Let me conclude by saying: No matter where you stand in the spectrum of thoughts and opinions, AI will have a place in our world, so let's clinch the opportunities it presents us and make sure it's used for social and business good for generations to come. Stay Digi-Data connected!

# NEXTCLOUD UPGRADE: **FASTER, SMOOTHER, BETTER!**



Great things are happening at NWU! The Nextcloud platform has undergone a significant upgrade from version 21.0.1 to 29.0.3 over the past month. With enhanced features and improved performance, this update highlights our commitment to delivering an exceptional user experience. Here's what you need to know about these exciting changes:

## Planning and Execution

The main goal was to tap into the latest features and improvements of Nextcloud, making sure the NWU enjoys better performance, security, and functionality.

A properly planned upgrade process was followed, focusing on thorough testing and preparation to make the transition as smooth as possible. The upgrade was done step by step, going through versions 22 to 29.0.3, testing each one carefully to ensure the system stayed stable and users could access everything without hiccups.

Although things went smoothly overall, we did hit a few bumps in the early phases. However, quick troubleshooting and adjustments kept the process on track, showing how important it is to stay flexible during projects like this.

## Better User Experience

One of the most exciting parts of the upgrade was updating the desktop apps from version 3.5.1 to 3.13.4. This made sure everything worked smoothly with the new server and gave users access to awesome new features that ensure secure data storage and synchronisation.

The feedback has been very positive so far. Users are loving the improved performance and new tools that help them work better together.

## What We Learned

This upgrade taught us a few key lessons:

### 1. Preparation is Everything:

A detailed plan, including a rollback option, is crucial for managing risks.

### 2. Communication is Key:

Keeping users in the loop makes the whole process smoother and leaves people happier.

### 3. Keep Improving:

Regular updates and training help users get the most out of new features and keep everything running smoothly.

## In Conclusion

Upgrading Nextcloud was a big win and highlights our commitment to using technology to improve user experience and productivity. Looking ahead, we'll stay agile and make sure the systems evolve to meet our users' needs.

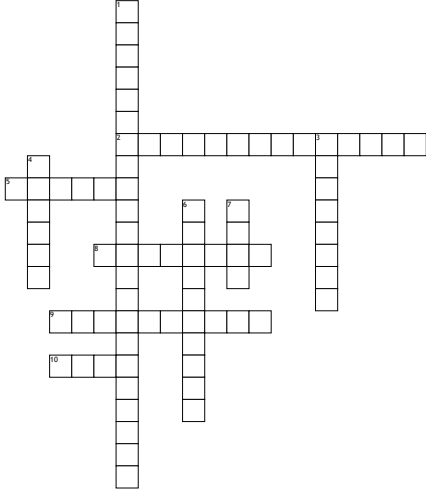
IT is committed to continuously enhancing our Nextcloud environment by staying ahead of upgrades and prioritising user-driven improvements, ensuring a cutting-edge experience for our organisation.

Reflecting on this project, it's clear that with careful planning, good communication, and a flexible approach, we can achieve great things on our digital journey.

AI WORDSEARCH

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 S D S V K I J Q E C M G N G R P R S E M F O S  
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John McCarthy  
 Intelligence  
 Allan Turing  
 Development  
 Artificial  
 Statistics  
 Stockfish  
 Factories  
 Inferring  
 Alphazero  
 Computer  
 Machines  
 Checkers  
 DeepMind  
 Perform  
 Program  
 Theory  
 Humans  
 Future  
 Robots  
 LCzero  
 Sophia  
 Logic  
 Chess  
 Alexa  
 Cosmo  
 Game  
 Siri  
 AI



AI CROSSWORD

**Across**  
 2. What are the robots using to see the store shelves?  
 5. What's the name of the robot Jimmy Fallon meets in his show?  
 8. "experts believe a profound technological shift is ..."  
 9. What is another area that is booming in the field of AI?  
 10. This product (from apple) is a pioneer of artificial intelligence.

**Down**  
 1. The term describes the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings.  
 3. AI will be transforming the...  
 4. Whose company is on the forefront of self-driving car technology?  
 6. By using a machine in agriculture that distinguishes weeds from crops, 95% of ... can be reduced.  
 7. People's biggest ... is that AI will take over.

# CLEANING VS ARCHIVING: WHICH SHOULD YOU DO FIRST?



What should come first between cleaning up your email storage or archiving? This is one of the most frequently asked questions. In this blog post, we will try to answer it, but before that, let's introduce two characters: Bob and Coddy.

Both work in the same department at North West University (NWU), but when it comes to their digital organisation, they couldn't be more different. One is a shining example of cleanliness, and the other, well... let's just say he's a bit of a disaster waiting to happen. Their story will teach us all why it's so important to clean before you archive.

**Coddy: The Organised Whiz**

Coddy is the poster child of our institution. His desk is spotless (not even a tiny coffee stain), his desktop screen free of rogue files, and his inbox? It is organised - and has plenty of space. Coddy doesn't worry about running out of space on his devices because he knows exactly what's stored and where it's kept.

Before Coddy archives his emails, he does something simple but often overlooked: **he cleans his inbox**. He deletes unwanted emails, clears out duplicates, and makes sure that his archive will only contain useful information. When it's time to move those emails to the Online Archive, Coddy's system works like a charm. His archives aren't clogged with irrelevant emails about last year's Christmas party or his colleague's "funny" cat videos.

**Here is how Coddy does it:**

1. Move single emails: A quick drag and drop into his Online Archive mailbox, or a simple right-click > "Move" > "Online Archive," and his work is done.
2. Move multiple emails: Coddy selects a bunch of emails at once by holding down Shift and clicking the first and last messages. Then he drags them neatly into the archive.
3. Move entire folders: When it's time to tidy up, Coddy right-clicks on a folder, selects "Move Folder" to the Online Archive, and voilà! Everything is sorted.

Coddy's archiving is stress-free because he's already cleaned his digital house. Be like Coddy!

**Bob: The Perpetual Hoarder**

Now let's talk about Bob. His desk is a maze of papers, coffee cups, and that sandwich from three days ago he still hasn't thrown away. His digital life is a mess. His desktop is scattered with random files, and his inbox is an overwhelming jungle of unread messages, spam, and old newsletters.

Bob hates cleaning, especially not before archiving. He just dumps everything into the Online Archive without a second thought, assuming that his mess will magically organise itself. Oh, poor Bob- it doesn't! Look at Bob now, he finds himself in a constant panic. He is worried about running out of space or losing crucial information in the sea of junk he's saved.

When Bob finally tries to locate an important document from last year, it's like searching for a needle in a haystack. If only he'd taken a leaf out of Coddy's book and cleaned before archiving.

**The Moral of the Story?**

In life, there are Bobs and there are Coddys. But it's never too late to become a Coddy. Before you rush to archive, take a moment to clean. Delete those old newsletters, unsubscribe from the endless spam, and organise your folders. When your storage is neat, your archives will be easier to manage, and you'll avoid the panic Bob lives in daily.

So, next time you're about to archive, ask yourself: are you a Coddy or a Bob? Let's aim to be more like Coddy. Clean before you archive, and your digital life will thank you. Happy archiving!

# Digital Transformation at NWU: *Embracing the Future*

**D**igital transformation is reshaping higher education by integrating technologies to enhance learning, research, and administration. North-West University (NWU) is prioritising this transformation through ongoing initiatives.

#### Streamlining Administrative Operations:

Digital tools improve administrative processes, automating tasks like student registration, financial aid, and resource management. Digital portals provide students and faculty easy access to course information and support services. NWU has implemented Anthology CRM to improve the engagement experience for both prospective and registered students. The Anthology Student Information System (SIS) is set to launch in 2025.

#### Enhancing the Learning Experience:

Blended and online formats, supported by Learning Management Systems (LMS), offer flexible, 24/7 access to course material. AI-driven platforms and VR/AR technologies enhance personalised, immersive learning. NWU is also planning to introduce a new LMS.

#### Enhancing Research Capabilities:

Tools like big data analytics, AI, and cloud computing enable faster, more precise research. Collaboration platforms and digital libraries eliminate geographic barriers, making resources and teamwork more accessible globally. Cayuse and Skillsforge are new NWU partners in the research space.

#### Improving Student Engagement and Support:

NWU fully embraces responsible use of Artificial Intelligence (AI), relevant governance structures are currently being introduced in support of this technology. AI-powered chatbots and predictive analytics support student engagement and identify those at risk of underperforming, enabling timely interventions. AI functionality is constantly being embedded into the new systems that NWU is introducing to benefit Students, Faculty and Administrative support. NWU has also initiated the Data & Analytics Strategy and Operating Model (DASOM) project to enable data driven decision-making across the institution.

#### Challenges:

Universities face digital transformation related challenges including data privacy, cybersecurity, and equitable access to digital tools. Substantial investment in infrastructure and training is required to overcome these hurdles, coupled with a culture change to ensure overall return on investment.

In conclusion, while digital transformation is revolutionising universities like NWU, managing challenges is equally important for equitable, secure integration and successful implementation.