Multi-year Expert Meeting on Trade, Services and Development

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Fourth Session

Presentation

Sharing country experiences:

Digitalization and artificial intelligence in creative services

Ms. Amy Shelver
Observatory of Creative Economy
South Africa

Credit: AI-augmented image/gif generated by Llama/Meta, prompted by Amy Shelver

Rushed revolution or holy algorithmic grail of creative future?

The initial effect of artificial intelligence on South Africa's creative practitioners, companies and cultural context.

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Dune

AI: A time of tensions

(agency) Power & Policy (regulation)

Creativity vs. The Machine

Ethical caution vs. speed of deployment

Listen to the users
Methodology

Big picture

Views	Starts	Submissions	Completion rate	Time to complete
755	330	157	47.6%	17:27

AnimationSA's AI-driven transformation

The industry association for Animation, VFX & Gaming professionals

Join Animation SA today and promote your work, access resources and gain member benefits.

Sign up today!   **Make a Donation**

"The incubator became another sort of solution and risk mitigator where we created this inverted value chain of bringing everything at the end of the value chain into development. And instead of three-year production pipelines, we can now do it in months or less than a year. So, we can churn out a lot more content. The point? Flipping [beliefs about AI] and looking at where's the opportunity and how can we leverage this for our benefits."
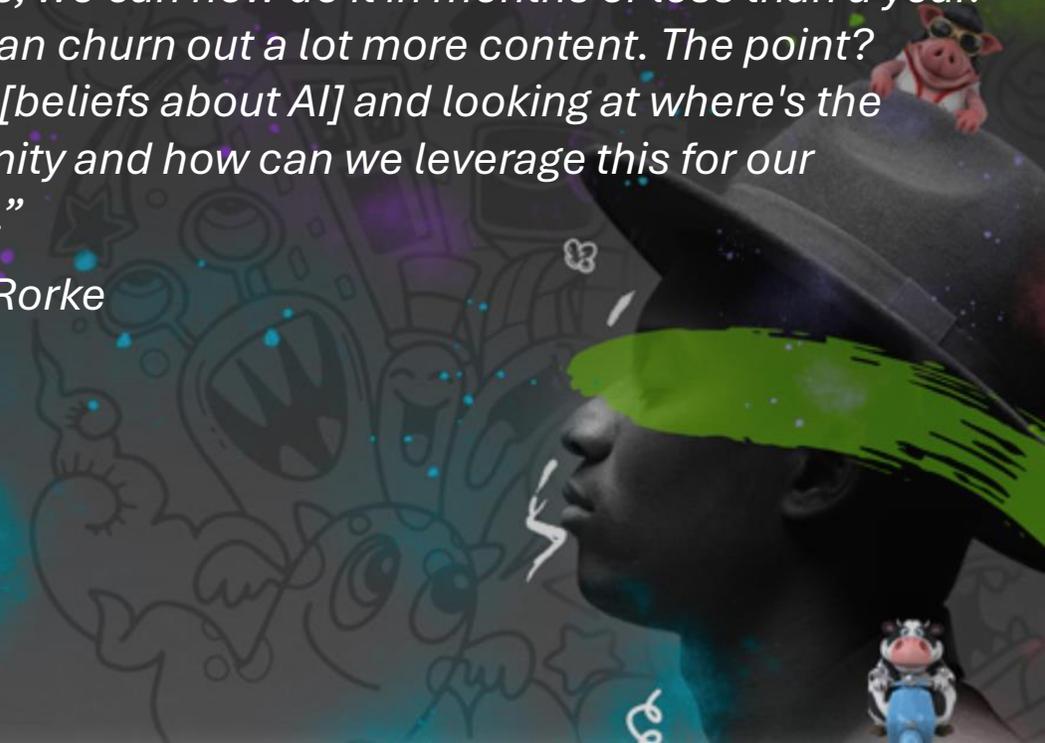
- Isabel Rorke
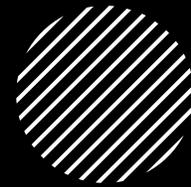
- Rapid ideation and concept art
- Rotoscoping
- Content generation
- Impact on work and training

"A lot of the times, [in the industry and] even in our company, how we would integrate junior staff members, interns, women (as our industry is still quite heavily male dominated), people of colour, people who would never have thought to come into this industry – was through roles like admin, rotoscoping and learning the pipeline. All of that is going away. So [the AI issue] has got a real in terms of how we find new ways as employees to integrate people who would not ordinarily have been in this space due to a myriad of reasons." –

Nosipho Maketo-van den Bragt, CEO/founder of Chocolate Tribe Animation Studio

Chocolate Tribe: An animation case study

- *"We are definitely in the future... With the advent of AI, a lot of the drudge work, the repetitive work, we are seeing it go away because there are now new tools that you can use to take away that type of work"* –

- Nosipho Maketo-van den Bragt, CEO/founder of Chocolate Tribe Animation Studio

Digitalization and AI in creative services

- How SA is leveraging digitalization and AI to enhance the competitiveness of creatives?

- What strategies and policies does SA implement to overcome any related challenges?

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Table 8: South Africa's trade in services sectors relevant for cultural services trade 2018–2020

Services trade in R billions		2018	2019	2020
Personal travel services	Exports	108.65	111.25	37.87
	Imports	32.38	33.64	10.19
	Balance	76.26	77.61	27.68
Charges for the use of intellectual property	Exports	2.42	2.18	2.10
	Imports	20.28	19.60	19.65
	Balance	-17.86	-17.42	-17.57
Telecomms, computer & information services	Exports	8.43	10.00	11.70
	Imports	30.13	36.22	42.56
	Balance	-21.70	-26.23	-30.86
Advertising & market research services	Exports	3.34	3.53	3.06
	Imports	3.84	4.21	4.17
	Balance	-0.50	-0.68	-1.11
Architectural, engineering & other technical services	Exports	9.60	6.68	7.63
	Imports	11.35	13.59	11.30
	Balance	-1.76	-6.91	- 3.67
Personal, cultural & recreational services, of which:	Exports	5.33	5.72	3.46
	Imports	1.27	2.24	2.04
	Balance	4.06	3.48	1.42
Audio-visual & related services	Exports	3.06	3.18	2.36
	Imports	0.39	0.51	0.45
	Balance	2.67	2.67	1.91
Other personal, cultural & recreational services	Exports	0.24	0.26	0.27
	Imports	0.06	0.10	0.02
	Balance	0.18	0.16	0.25
Total services	Exports	225.19	229 706	139 658
	Imports	224.69	238 369	184 594
	Balance	0.5	-8.66	-44 936

Source: Authors' computations from SARB, 2021, and ITC, UNCTAD and WTP, 2021
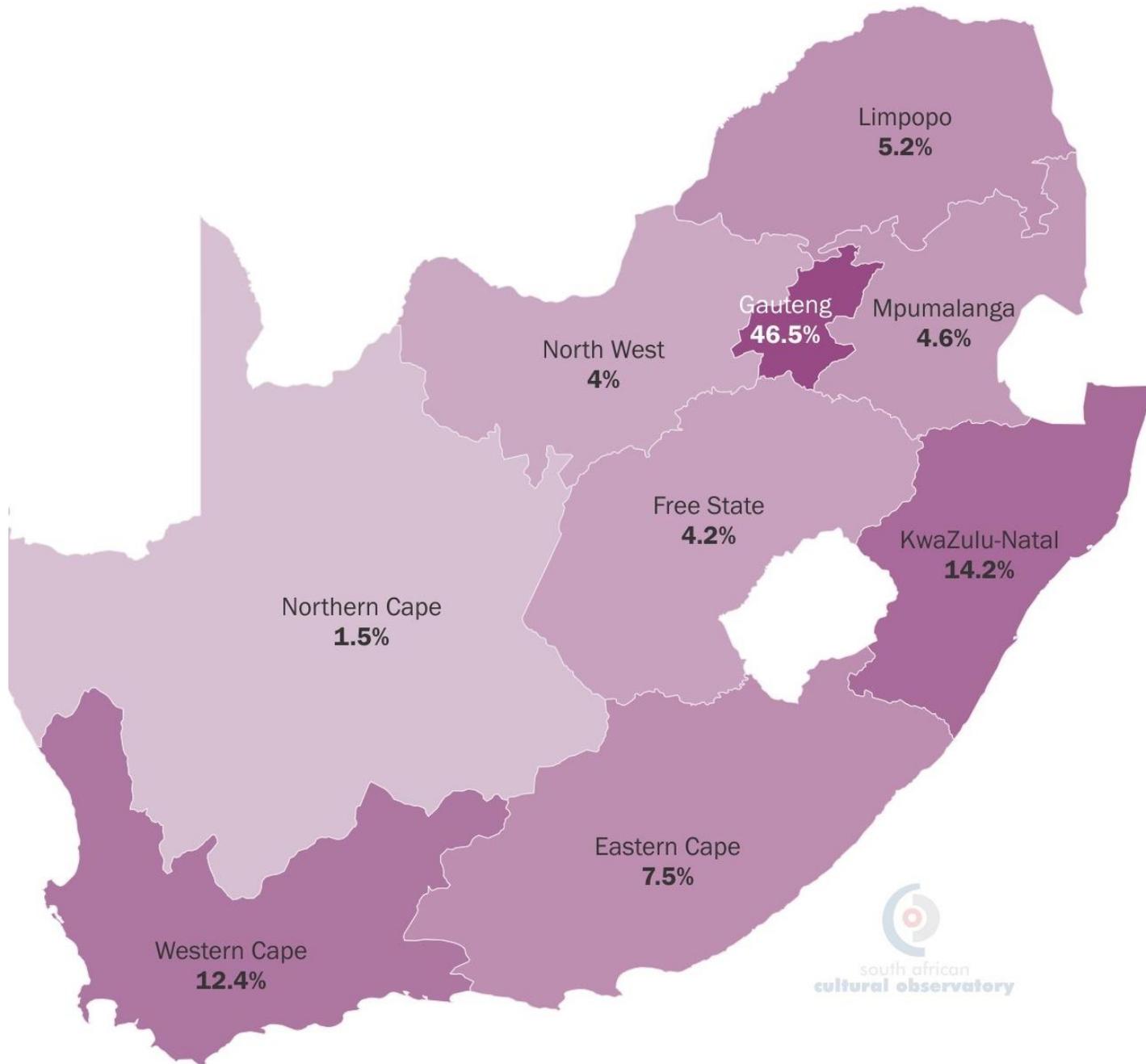
Geographic spread of CCIs in SA

Limpopo
5.2%

Gauteng
46.5%

Mpumalanga
4.6%

North West
4%

Free State
4.2%

KwaZulu-Natal
14.2%

Northern Cape
1.5%

Eastern Cape
7.5%

Western Cape
12.4%

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Design and creative services

Cultural and national heritage

Performance and celebration

Visual arts & crafts

Books & press

Audiovisual and interactive media

32%

4%

6%

15%

13%

30%

GROWTH RATE
(per annum)

-0.6%

-0.5%

-0.49%

-2.13%

-1.81%

-0.29%
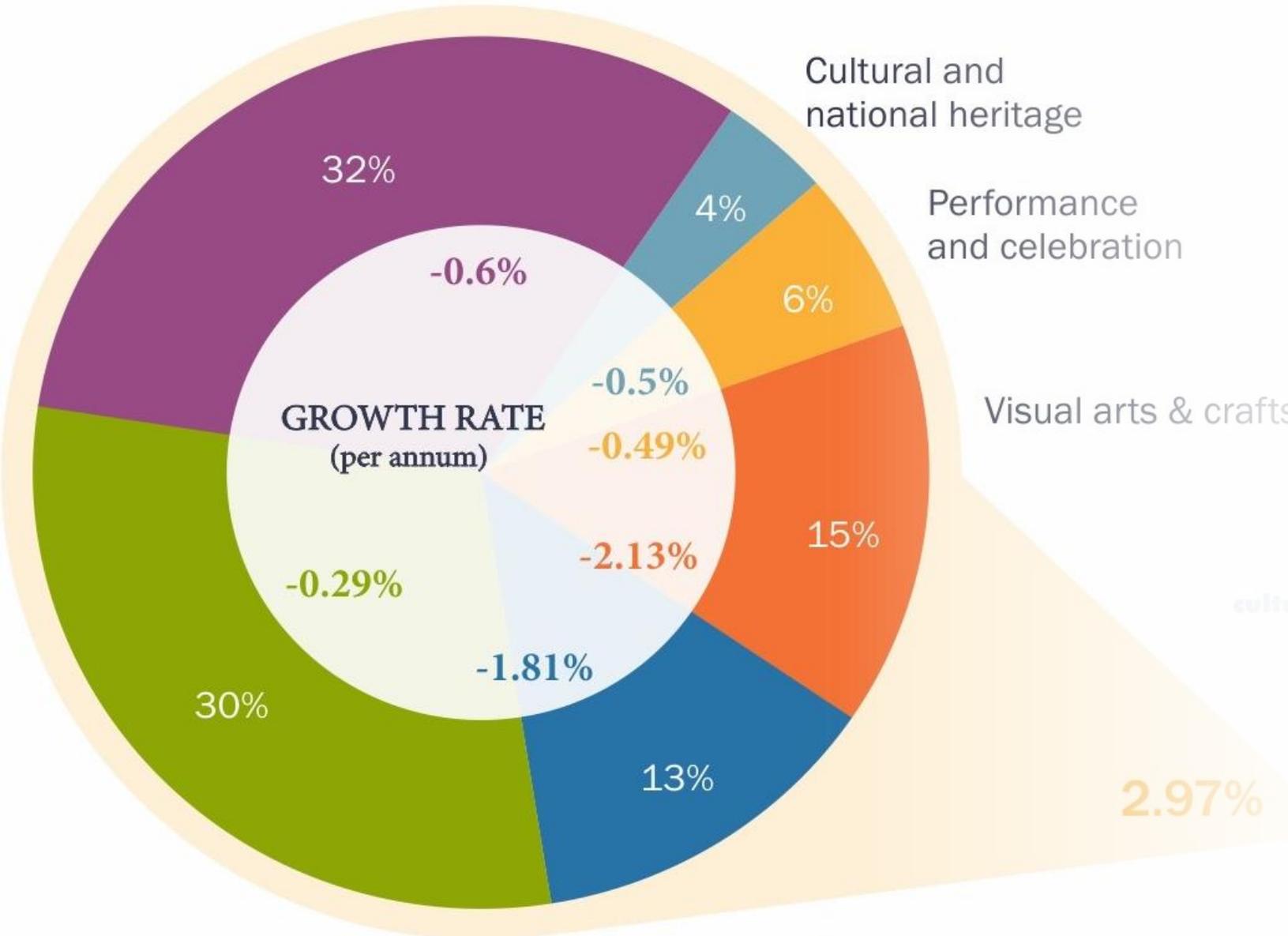
CCIs in South African GDP contribution

2.97%

On par with agriculture

2.97%

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Employment by domain
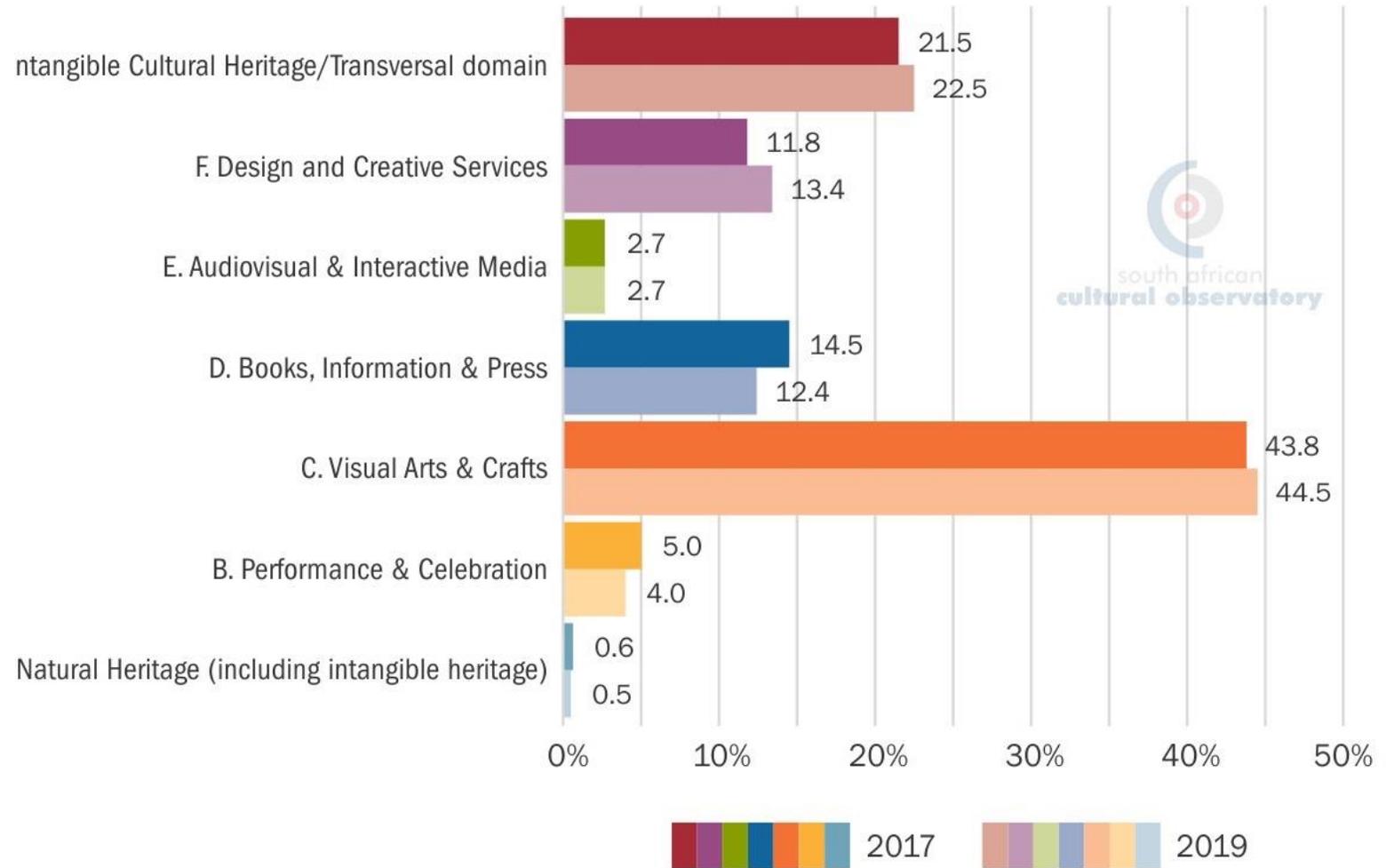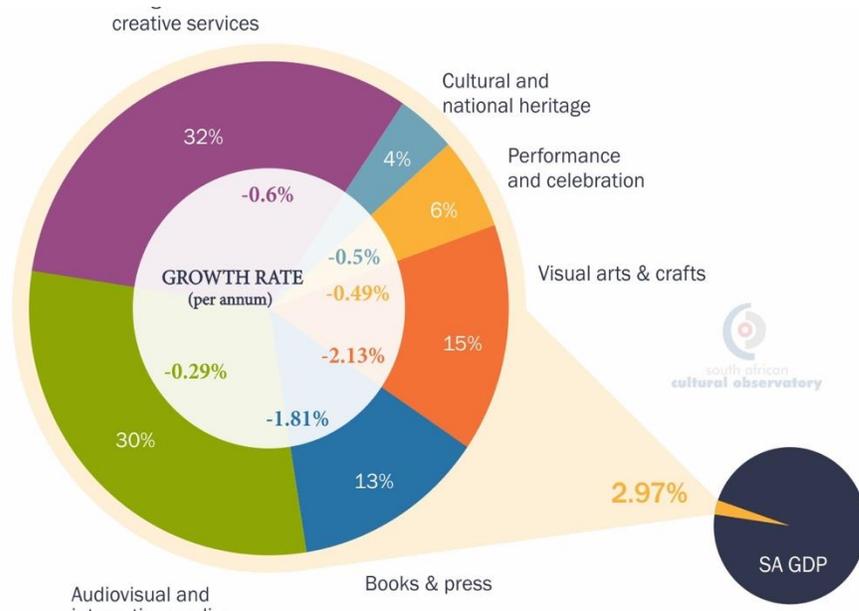
CCI impact on employment

A	B	C
Employed in **creative** occupations in **creative** industries	Employed in **creative** occupations in **other** industries	Employed in **support** occupations in **creative** industries
0.4% of jobs (65 300 jobs)	1.9% of jobs (320 000 jobs)	3.7% of jobs (614 600 jobs)

TOTAL CREATIVE EMPLOYMENT

6% of jobs
(1 million jobs)
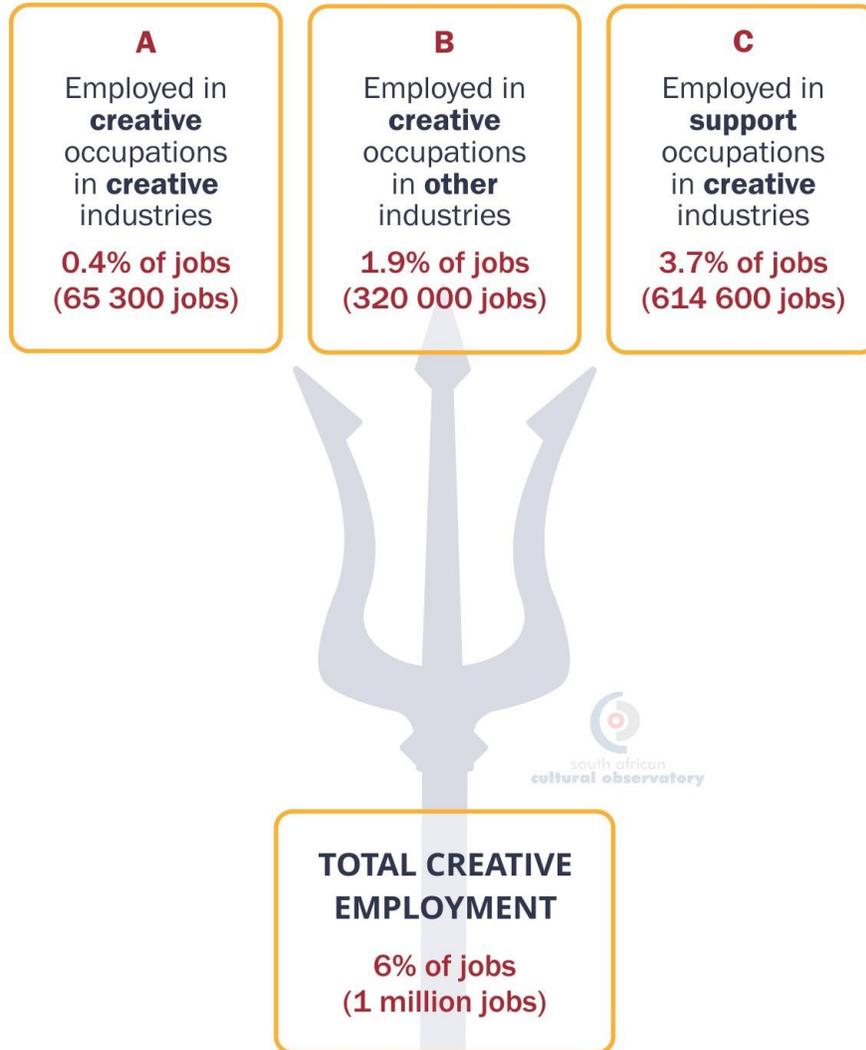
6%
of all jobs in South Africa

just over
1 million jobs

Up from 2017: 5.9% or 965 000 jobs

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What did we find?

Research survey highlights

Who took our survey?

Creative Sector of Respondents

- Film, Video — 11%
- Education and Training — 9%
- Music and Audio Production — 9%
- Performing Arts — 9%
- Research & Development — 9%
- Arts & Crafts — 8%
- Photography — 7%
- Design — 7%
- Advertising — 6%
- Electronic Publishing — 5%
- TV — 4%
- Heritage & Heritage Conservation — 3%
- Radio — 2%
- Fashion — 2%
- Museums & Libraries — 2%
- Software Development — 1%
- Sport — 1%
- Architecture — 1%
- Other — 5%
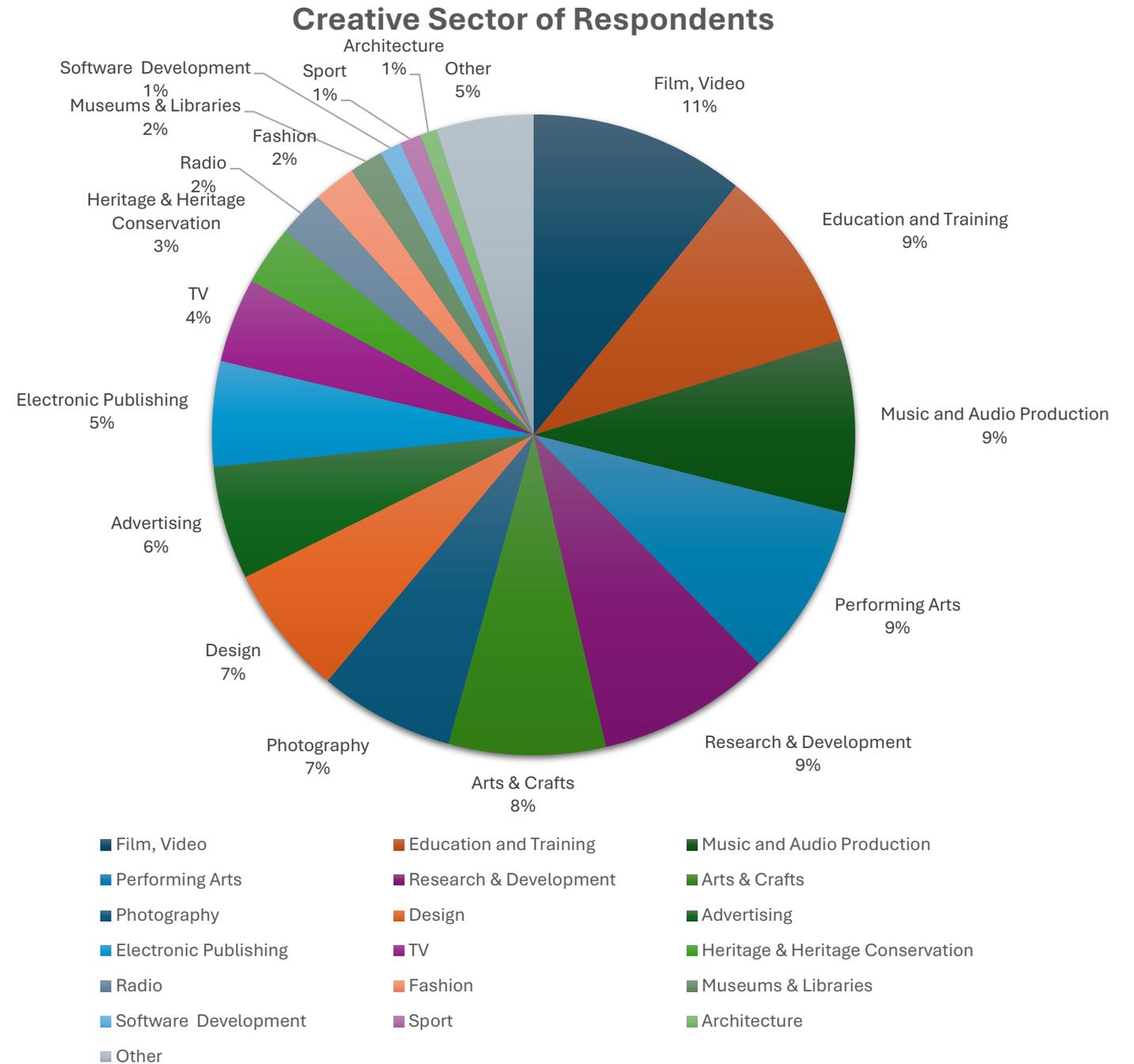
Most creatives surveyed had used AI

Have you personally used AI tools or software in **your creative work or process**

157 out of 157 answered

Yes — 111 resp. 70.7%

No — 46 resp. 29.3%

AI Tools & Software

- ChatGPT (41%)
- Canva (25%)
- Adobe Suite (15%)

Legend: Grammarly, LookX, Firefly, Quillbot, Wix, AskYourPDF, CoDesign, 3D Generators, Unreal Engin, Wombo, Poe, NotionAI, CoPilot, Otter.AI, Imagine, TypeAI, StableDiffusion, Typeform, LeonardoAI, Google Suite, Bing, Pinterest, MidJourney, Bard, Adobe Suite, Canva, ChatGPT
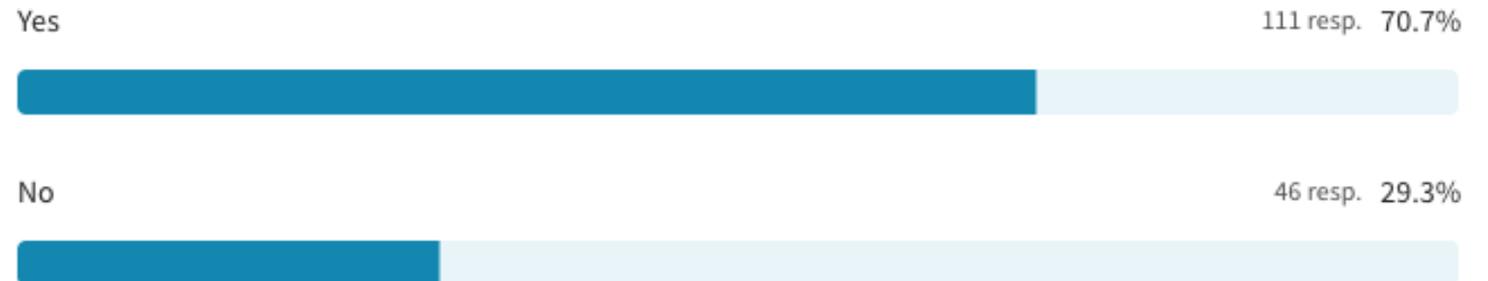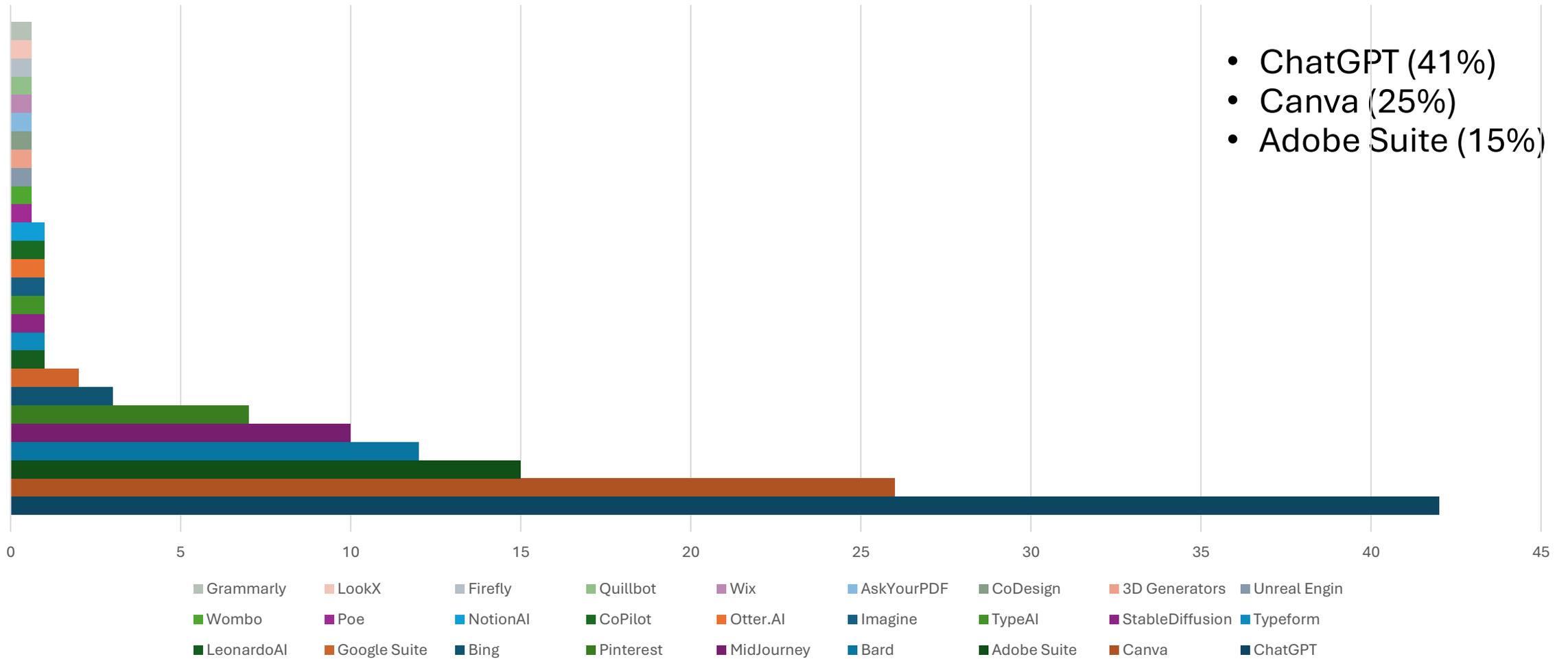
Types of AI tools used

Most creatives are positive & excited about AI!

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✓ 1 How do you feel about AI and machine learning, in general?

157 out of 157 people answered this question

Postive and excited   107 resp.   68.2%

Indifferent   27 resp.   17.2%

I'm scared!   23 resp.   14.6%
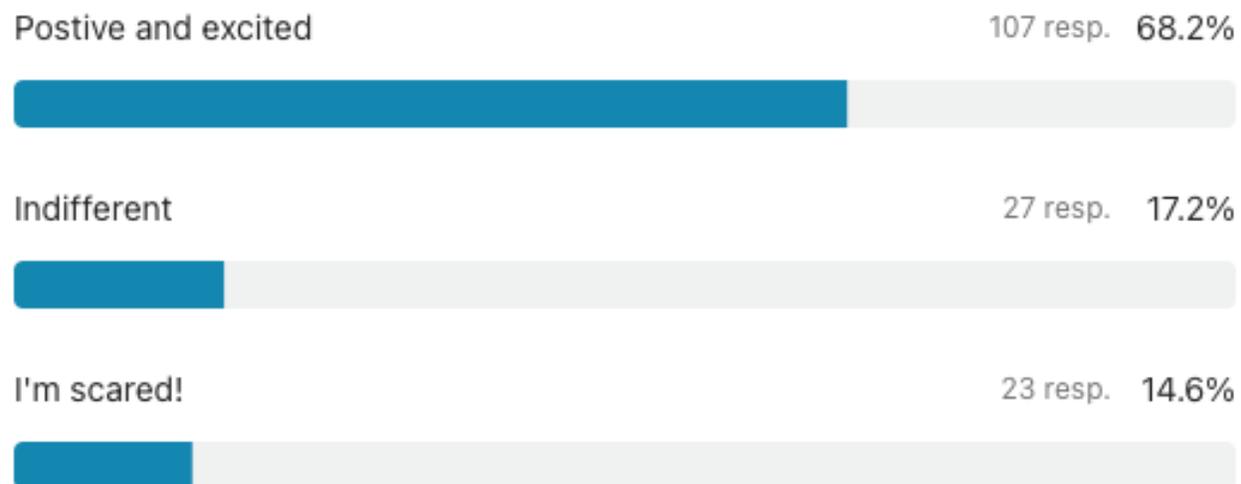
What SA creatives said

"AI has a lot of **unimaginable possibilities** as a tool we use as part of our production process, the technology is still new, and the negative is slowly coming to light but **with the right legislation we can create guardrails to protect IP from unauthorized use of copyrighted works** during machine learning. In time will have rules and laws to govern it, so there's **no need to panic just yet**."

- "The key is about **who is feeding the AI directives and instructions**. Since I'm not in control of that, I can't dictate what direction the AI should develop in. All I **hope is that it's developed in a safe manner where if it's meant to grow**, it can be instilled with some type reasoning which can allow it to be used for **more practical applications outside of replacing humans in their respective fields of work/ar**t."

Most creatives have used AI and think it's helping them somewhat

Has AI or machine learning helped or hindered your **creative workflow** or somewhere inbetween?

157 out of 157 answered

Helped — 83 resp. 52.9%

Somewhere in the middle — 50 resp. 31.8%

Hindered — 9 resp. 5.7%

Other — 15 resp. 9.6%

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Most creatives do not think AI has affected them negatively

Has AI affected you negatively in any way?

156 out of 156 answered

No   125 resp. 80.1%

Yes   31 resp. 19.9%

What SA creatives said

"**The distinction must be made between unregulated generative AI and AI in general**. The former has already threatened copyright industries like mine and **threatened the livelihoods of human creators**".

"Music copyright infringement"

"Well, I think it affects all of us negatively because it **is inherently biased and commodified by neoliberal capitalism**. I'd like to see and explore how to use AI differently".

What SA creatives said

"YES!!! But it will be pretty much impossible to police, which is quite depressing".

"Fair Use is useful for users of creative work, and for those technology companies who benefit from assuming that their version of 'progress' is the only version. **Fair use in South Africa will be a force of destruction for the creative industries**, and therefore ultimately result in a severely negative impact for users and technology companies.

"Yes I am concerned, all copyrighted material must be respected and only used once an agreement and permission has been granted by owner(s). If big tech companies don't respect and follow the copyright laws they will influence the general public to also not respect copyright laws leading to more cases of infringements."

"Definitely. Generating content with AI that doesn't clearly define it's sources is problematic with regards to plagiarism and limits the use of AI generated content. It also creates a question around copyright and IP - who owns AI generated content and how does IP get assigned for the person who fed the request into AI vs the AI tool/owner.
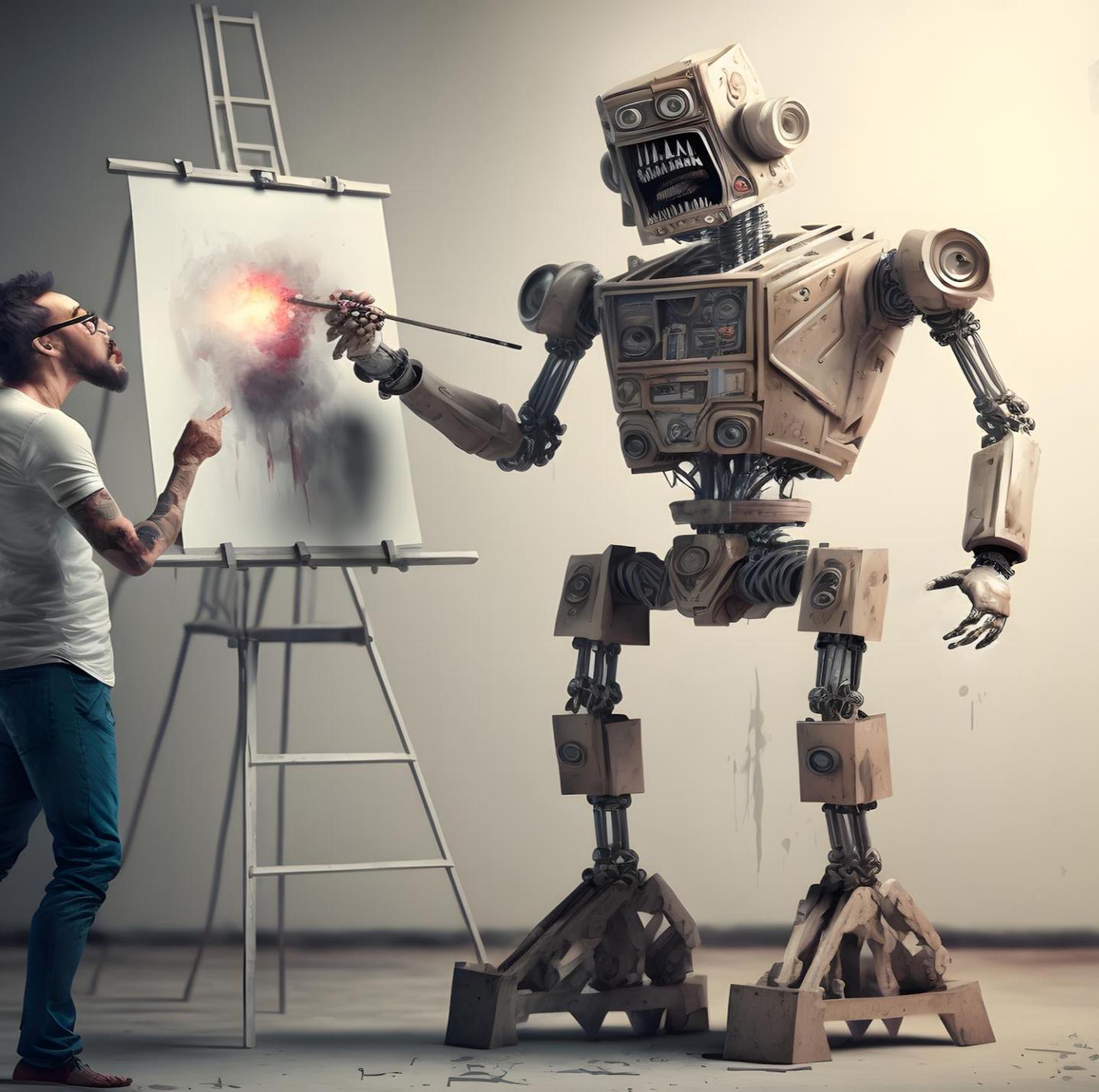
Key take outs and emerging tensions

While there is recognition of AI's capabilities in generating content and streamlining processes, there is also a strong sentiment that human creativity possesses unique qualities that cannot be replicated by AI. Thematic issues focuses on:

- Potential for replacement

- AI as a tool, not a replacement:

- Augmentation and assistance

- Concerns about misuse and regulation

- Uncertainty and outlook

The consensus leans towards viewing AI as a tool that can complement and enhance human creativity rather than completely supplant it.

The story of AI's emergence and its impact on all sectors and areas of work and life is a story of extraordinary technological disruption. It is also one of the most powerful tensions between the past and the future, policy and power, creativity and automation, fear and excitement, slowness and speed, and more. The AI era is here.

We need to adapt to it.

9 SA policy recommendations for AI-ready CCIs

1. National vision and governance

2. Ethical guidelines and legal frameworks

3. Education and capacity building

4. Infrastructure and accessibility

5. Data governance and privacy

6. Innovation and research

7. International collaboration

8. Worker protection and fair compensation

9. Monitoring and adaptation

Timeline of global AI legislation evolution

2016	2017	2018	2019	2020	2021	2022	2023 Onwards

2016
- **Partnership on AI founded**: Multi-stakeholder organization focusing on the responsible development and use of AI.
- **United States**: The White House releases the National Artificial Intelligence Research and Development Strategic Plan, outlining federal research and development priorities in AI.

2017
- **Asilomar AI Principles released**: A set of 23 guidelines for the safe and beneficial development of AI.
- **China**: China releases its New Generation AI Development Plan, aiming to become a global leader in AI innovation by 2030.

2018
- **European Commission**: Adopts its first AI strategy.
- **Canada and France**: Launch the International Panel on Artificial Intelligence (later the Global Partnership on AI).
- **European Union**: Introduces the General Data Protection Regulation (GDPR), with provisions related to AI and automated decision-making.
- **United Kingdom**: Publishes the AI Sector Deal, promoting AI industry growth while addressing ethical concerns.
- **Canada**: Establishes the Advisory Council on Artificial Intelligence.

2019
- **OECD**: Adopts its AI Principles, the first intergovernmental AI guidelines.
- **Beijing AI Principles**: Published by the Beijing Academy of Artificial Intelligence (BAAI).
- **United States**: The U.S. Federal Trade Commission (FTC) issues guidelines on AI use, addressing biases and promoting transparency.
- **Canada**: Introduces the Directive on Automated Decision-Making, assessing the impacts of AI on privacy and human rights.

2020
- **G20**: Adopts its AI Principles.
- **European Commission**: Publishes its White Paper on Artificial Intelligence.
- **United Nations**: UNESCO releases the Recommendation on the Ethics of Artificial Intelligence, providing a framework for ethical AI development and use.
- **World Economic Forum**: Launches the Global AI Action Alliance, focusing on AI governance and ethics.

2021
- **UNESCO**: Adopts the Recommendation on the Ethics of Artificial Intelligence, the first global normative instrument on AI ethics.
- **European Union**: Proposes the Artificial Intelligence Act, regulating high-risk AI applications and ensuring transparency and accountability.
- **United States**: NIST releases Ethical Considerations for AI Standards, integrating ethical principles into AI development.
- **United Nations**: Adopts the AI for Good Summit Declaration, reaffirming the commitment to AI for sustainable development.

2022
- **United States**: Publishes the Blueprint for an AI Bill of Rights, non-binding guidance for designing and deploying AI.
- **European Union**: Intensifies work on the AI Act, with continued debate and refinement.

2023 Onwards
- **European Union**: AI Act
- **13 March 2024**: EU Parliament approves the draft law.
- **20 days after publication**: Entry into force of the law.
- **6 months after entry into force**: Ban on AI systems with unacceptable risk.
- **9 months after entry into force**: Application of codes of conduct.

Summary of timeline of key developments among nations of the Global North and international organizations in the last decade. Source: SACO, 2024

Timeline of African AI Legislation evolution

South Africa: The national Department of Science and Innovation establishes the Centre for Artificial Intelligence Research (CAIR).

2011

Mauritius: Publication of Mauritius' AI strategy.

Kenya: Creation of the Distributed Ledgers Technology and AI Task Force to develop a roadmap for exploring the potential of AI.

2018

African Union Commission: Adoption of the Continental Data Policy Framework.

South Africa: Establishment of the AI Institute of South Africa.

2022

South Africa: Drafting of the National AI Plan of South Africa.

2024

2013

SmartAfrica Blueprint: Established by several heads of state in Africa to advance digital communication and development across the continent.

2021

Egypt: Launch of Egypt's National AI Strategy.

2023

Rwanda: Approval of Rwanda's National AI Policy **by the cabinet.**

African Union: Adoption of the Malabo Convention in June 2023.

2025

African Union Development Agency: Release of AI draft policy for African countries to endorse by February 2025.

Summary of timeline of key developments in AI legislation on the African continent 2011-2023. Source: SACO, 202

Let's build a creative, moving Mzansi, world together!

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