

DEMOCRATISATION OF DIGITAL TRANSFORMATION THROUGH CITIZEN DEVELOPMENT



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Introduction

In the rapidly evolving digital era, organisations are striving to stay ahead by undergoing digital transformation. However, they face significant challenges in meeting the increasing demands for technology solutions. IT departments are often inundated with a backlog of requests, making it difficult to manage the demand for new applications and enhancements efficiently. The high cost and complexity associated with traditional development processes further exacerbate the issue, especially for small and medium-sized enterprises and entrepreneurs.

Many individuals and communities have innovative ideas that could address pressing problems, but lack the technical expertise to bring these solutions to life. This gap between idea and implementation limits the potential for grassroots innovation and slows down the overall pace of digital transformation.

Citizen development emerges as a solution to these challenges. By enabling non-technical employees to create, modify, and deploy business applications, organisations can democratise the development process. This approach leverages low-code/no-code platforms, which simplify application development, making it accessible to those without extensive coding skills. According to Gartner, the low-code/no-code development market is projected to reach \$27.23 billion by 2025, underscoring the growing significance of this trend (Gartner, 2023).

The uptake of citizen development empowers employees to solve their own problems with customised solutions, fostering innovation and agility within the organisation. This shift not only accelerates the development cycle but also reduces the burden on IT departments, allowing them to focus on strategic initiatives. By involving a broader range of employees in the development process, organisations can ensure that solutions are closely aligned with actual business needs, leading to more effective and responsive outcomes.

While citizen development offers numerous benefits, it also presents challenges that organisations must address. Establishing a robust governance framework, ensuring data security, and fostering collaboration between professional and citizen developers are critical to its success. By overcoming these hurdles, organisations can harness the full potential of citizen development, driving innovation and achieving their digital transformation goals.



ABOUT RESEARCH

About Research

At COOi Studios, we recognise the transformative potential of citizen development in driving business innovation and efficiency. Our research delves into current trends in citizen development, examining how various low-code/no-code tools are being leveraged across industries to address significant challenges faced by organisations.

We focus on how citizen development addresses the increasing demand for technology solutions, the high costs associated with traditional development, and the need for innovation from non-technical employees. By analysing case studies, industry reports, and user feedback, we provide a comprehensive overview of the impact these tools have on businesses and how they can be optimally utilised to drive success.

Our research methodology is grounded in comprehensive desktop research. We reviewed industry reports, case studies, and user feedback available in the public domain. Key sources include Gartner's market analyses, relevant industry documentation, and case studies from South African organisations implementing citizen development strategies.



Why Implement Citizen Development?

- 1.** Accelerate digital transformation
- 2.** Reduce Current IT backlog and increase responsiveness
- 3.** Reduce dependency on hard tech skills
- 4.** Increase rate of app development
- 5.** Built in tools, governance, support options simplifying development across the organisation
- 6.** Sometimes non-IT has a more accurate understanding of the purpose and audience of app, it makes sense that they spearhead the development under the guidance of an IT process

During application development, responsibilities can be shared between IT and business to reduce development time.

CITIZEN DEVELOPMENT TOOLS

Citizen Development Tools

Overview of Low-Code/No-Code Platforms

Low-code and no-code platforms have emerged as powerful tools for empowering non-technical users to create applications and automate processes. These platforms simplify the development process, enabling users to build and deploy solutions without extensive coding knowledge. Key players in this space include Microsoft Power Platform, SAP Build, and other notable platforms like Appian, Mendix, and OutSystems.

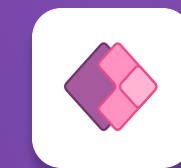
Microsoft Power Platform

Among the various tools available, Microsoft Power Platform stands out for its significant uptake and broad applicability. It includes:



Power BI

Facilitates data visualisation and insight generation through interactive reports and dashboards. Users can connect to multiple data sources and create visualisations with ease, enabling data-driven decision-making across the organisation.



Power Apps

Empowers users to build custom applications tailored to their business needs. The low-code/no-code environment allows for rapid development using pre-built templates and drag-and-drop components, enhancing business agility.

Citizen Development Tools (continued)



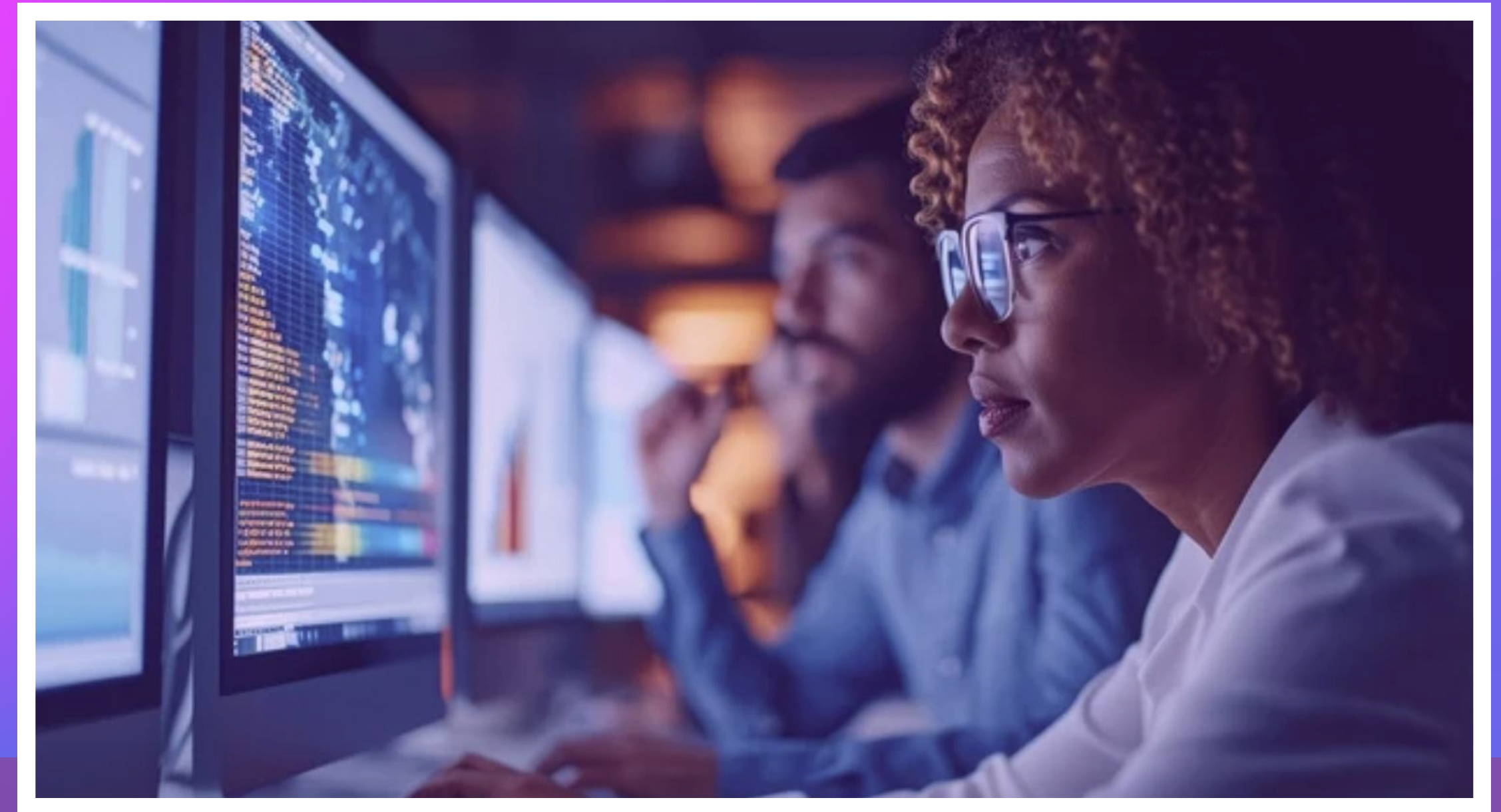
Power Automate

Automates repetitive tasks and processes, improving workflow efficiency. It enables users to create automated workflows that integrate various apps and services, reducing manual effort and error rates.

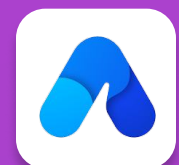


Power Virtual Agents

Provides a platform for creating intelligent chatbots that handle customer interactions and support. The graphical interface allows for chatbot design without coding, improving customer service and operational efficiency.



Other Notable Tools



SAP Build

Offers a low-code/no-code platform designed to simplify application development and integration within SAP environments. It supports rapid prototyping and deployment of business applications.



Appian

Known for its business process management and automation capabilities, Appian provides a low-code environment that accelerates application development and improves process efficiency.



Mendix

Provides a comprehensive low-code platform for rapid application development and deployment, focusing on collaboration between business and IT teams.



CITIZEN DEVELOPMENT TRENDS

Citizen Development Trends

The rise of citizen development is reshaping the business landscape by enabling employees at all levels to take an active role in the digital transformation process. The following sections explore key trends in citizen development, focusing on each of the main components of the Microsoft Power Platform, with relevant South African case studies.

Corporate and Government Usage

Citizen development tools are transforming how both corporate entities and government organisations operate, enabling them to become more agile and responsive.

Trend 1:

Accelerating Digital Transformation: SARS

South African Revenue Service (SARS) is the revenue service of the South African government. It administers the country's tax system and customs service, and enforces compliance with related legislation.

SARS has utilised Microsoft Power Apps to develop internal applications that streamline tax processing and improve service delivery. This has accelerated their digital transformation and reduced operational bottlenecks.



Citizen Development Trends

(continued)

Trend 2: Empowering Data Literacy: Anglo American

Sasol is a global chemicals and energy company. They harness their knowledge and expertise to integrate sophisticated technologies and processes into world-scale operating facilities.

Sasol uses Power BI to integrate data from various sources across its global operations, creating a unified view of information. This integration has enhanced decision-making processes by providing real-time data analytics and visualisation. With Power BI, Sasol has significantly improved its operational efficiency. The tool enables them to track performance metrics across different departments, identify areas for improvement, and make data-driven decisions quickly and accurately.

Trend 3: Enhancing Operational Efficiency: Sasol

Anglo American is a leading global mining company and our products are the essential ingredients in almost every aspect of modern life.

Anglo American has invested in enhancing data literacy among its employees. By deploying Microsoft Power BI, the company has been able to transform vast amounts of data into actionable insights. This has enabled employees at various levels to make data-driven decisions, contributing to overall operational improvements and strategic planning.



Citizen Development Trends (continued)

Strategic Partnerships

Strategic partnerships between organisations and technology providers are critical for maximising the benefits of citizen development tools.

Trend 1:

Collaborating for Innovation: Vodacom

Vodacom Group Limited is a South African mobile communications company, providing voice, messaging, data and converged services to over 130 million customers across Africa.

Vodacom partners with Microsoft to leverage Power Automate for automating network operations and customer service processes, leading to enhanced operational efficiency and service innovation.

Trend 2:

Expanding Capabilities through Alliances: MTN

MTN South Africa is a Telecommunications company located in South Africa. MTN is listed on the Johannesburg Stock Exchange (JSE) under the share code MTN and enjoys approximately 37% of market share in South Africa.

MTN collaborates with local tech startups to integrate Power Apps into their customer management systems, expanding their digital capabilities and driving innovation in customer engagement.

Trend 3:

Building Ecosystem Support: Nedbank

Nedbank Group is a financial services group in South Africa offering wholesale and retail banking services as well as insurance, asset management, and wealth management. Nedbank Limited is a wholly owned subsidiary of Nedbank Group. Nedbank's primary market is South Africa.

Nedbank's partnership with Microsoft has enabled them to use Power BI for better financial analytics and reporting, supported by a network of ecosystem partners providing additional tools and support.

Citizen Development Trends (continued)

Citizen Development for Women Economic Empowerment

Empowering women through citizen development tools is crucial for promoting diversity and inclusion in the tech space.

Trend 1:

Supporting Women Entrepreneur: Women in Tech South Africa

Women in Tech South Africa Women hold only 23% of tech employment positions in South Africa, or 56 000 out of 236 000 ICT roles, according to Women In Tech ZA, an initiative that aims to close the gender gap in the ICT industry through campaigning and raising awareness.

Women in Tech South Africa uses low-code apps to provide training and support for female entrepreneurs, enabling them to build their own apps and digital solutions with minimal technical expertise.

Trend 2:

Enhancing Workforce Participation: The Women's Business Network

The Women's Business Network is a community of high-achieving, motivated women who are "unapologetically ambitious." TWN provides opportunities to network with female leaders in a wide array of professions in order to expose members to different industries and career paths.

The Women's Business Network leverages Power BI to analyse and present data on female participation in tech, driving initiatives to increase representation and support for women in technology.

Trend 3:

Facilitating Skill Development: Code4sa

Code for South Africa is a non-profit civic technology lab. They use data and technology to promote informed decision-making that drives social change. Their base of operations is Codebridge in Cape Town where we are helping to create a civic technology movement.

Code for South Africa uses Power Automate to streamline training programs for women, enhancing their digital skills and preparing them for roles in tech.

Citizen Development Trends (continued)

Startups Fostering Innovation

Startups are at the forefront of leveraging citizen development tools to drive innovation and agility in the tech industry.

Trend 1:

Supporting Women Entrepreneur: Women in Tech South Africa

Trend 1: Rapid Innovation: YAPILI Connect

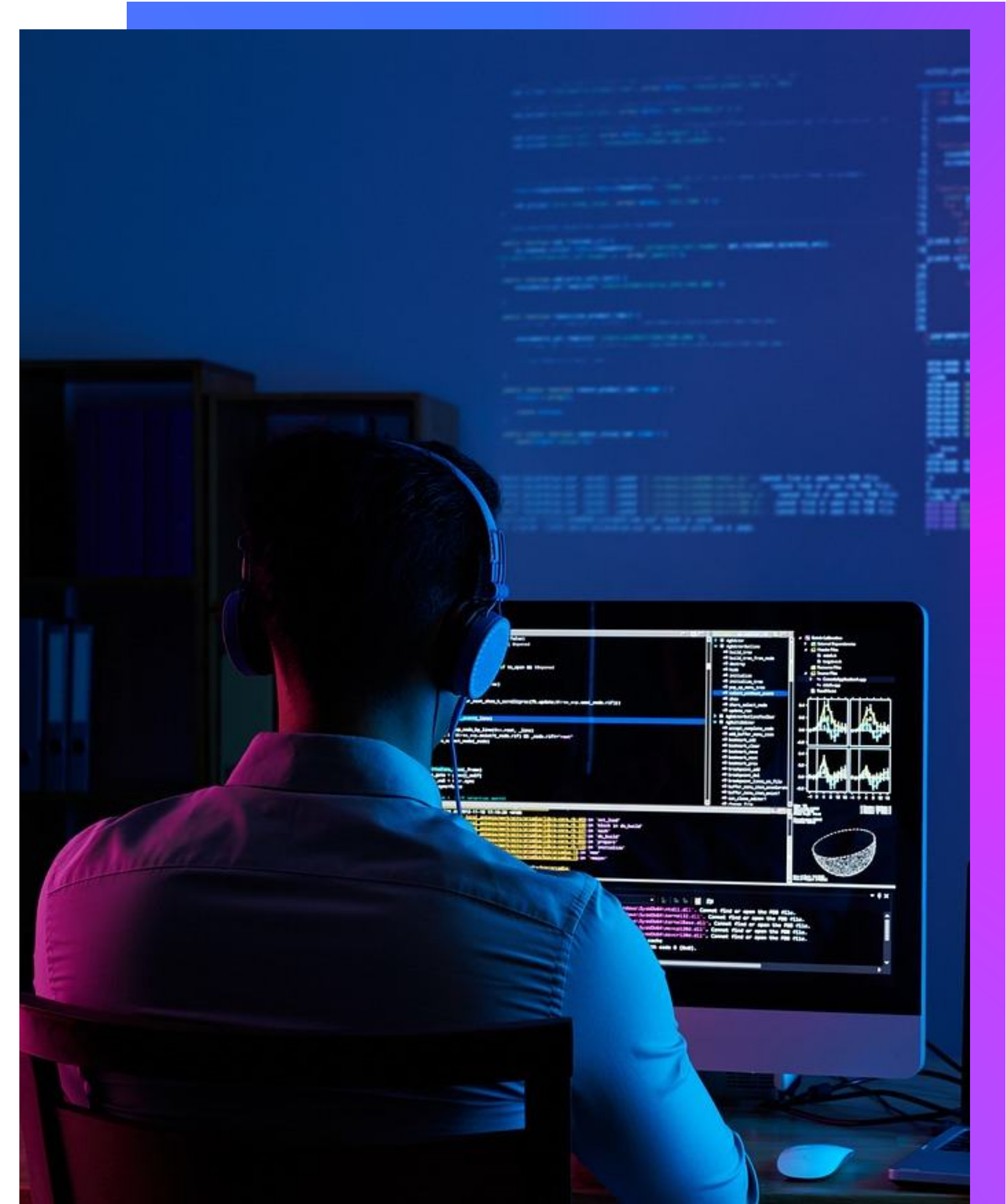
YAPILI Connect grants you simple, easy and quick access to open banking data and payments without the need to obtain a Third-Party Provider (TPP) license. YAPILI, a South African fintech startup, uses Power Apps to quickly prototype and deploy new financial services applications, allowing them to rapidly respond to market needs and customer feedback.

Trend 2:

Enhancing Workforce Participation: The Women's Business Network

Trend 2: Enhancing Customer Engagement: SweepSouth

SweepSouth is a pioneering South African startup that provides on-demand cleaning services through an easy-to-use online platform. SweepSouth uses Power Virtual Agents to create chatbots that handle customer inquiries and support requests, improving user experience and operational efficiency.



The image features two women, one younger and one older, both smiling and looking at a laptop screen. The entire scene is overlaid with a semi-transparent purple color. In the corners, there are white line-art graphics of circuit boards. The text is centered in the middle of the image in a bold, white, sans-serif font.

HOW COOI STUDIOS CAN HELP ORGANISATIONS ADAPT TO CITIZEN DEVELOPMENT

How COOi Studios Can Help Organisations Adapt to Citizen Development

COOi Studios offers a comprehensive suite of services to help organisations effectively adopt and benefit from citizen development:

Consultation and Assessment

We provide expert consultation to assess your organisation's readiness for citizen development and identify key areas for improvement.

Customised Training Programs

Our tailored training programs are designed to enhance digital literacy and empower your employees with the skills needed to utilise low-code/no-code tools effectively.

Governance Framework Development

We assist in establishing robust governance frameworks to ensure compliance, security, and efficient management of development activities.

Pilot Project Implementation

COOi Studios supports the implementation of pilot projects to demonstrate the potential benefits and gather actionable insights.

Continuous Support and Improvement

We offer ongoing support to citizen developers and help organisations monitor, evaluate, and iterate their citizen development initiatives.

Strategic Partnerships:

We facilitate strategic partnerships to enhance collaboration between business users and IT professionals, promoting a culture of innovation and continuous improvement.

By leveraging our expertise, resources, and strategic approach, COOi Studios enables organizations to harness the full potential of citizen development, driving digital transformation and business success.

Conclusion

The adoption of Microsoft's Power Platform is driving significant changes in how organisations approach business processes and digital transformation. Citizen development empowers employees to create solutions that address their needs, fostering a culture of innovation and agility. Future trends may include increased integration of AI across all components of the Power Platform, further enhancing automation and data analysis capabilities. While challenges remain, particularly in governance and security, the benefits of this approach are clear. Organisations that effectively leverage the Power Platform can expect improvements in productivity, employee engagement, and overall business performance.



Summary

COO Studios is committed to helping businesses harness the power of Microsoft's Power Platform. Through our research, we have identified key trends and best practices in citizen development, providing valuable insights for organisations looking to enhance their digital transformation efforts. By empowering employees with the tools they need to innovate and succeed, we are shaping the future of work and driving business success.

