The Publish, Tell, Show (PTS) Framework for Effective Research Communication: A Step-by-Step Approach to Maximising Societal Impact in Tanzania

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Abstract

Research is vital for Tanzania's development and societal change; yet research findings often remain uncommunicated, hindering their translation into practical policies and socio-economic actions. To address this challenge, the authors of this paper propose the adoption of a novel approach: The Publish, Tell and Show (PTS) Framework for Effective Research Communication, which defines effective research communication as an intentional, sequential and non-negotiable completion of a three-phase process: Publish, Tell, and Show in research dissemination. The framework aims to shift researchers' mindset to include communication as a core part of the research process, beyond traditional academic publishing. The PTS framework is the authors' own creation; an all-inclusive roadmap for greater and purposeful visibility for researchers; from establishing academic strength of the research findings ("Publish") to increasing awareness ("Tell") and finally to achieving real-world impact ("Show"). To claim to have communicated research findings effectively, a researcher must successfully complete the PTS process. Despite being at conceptual stage, it has the potential to become a benchmark model for assessing progress from traditional dissemination to real-world impact. Further research is recommended to evaluate its scalability into a model, adaptability within Tanzania's research ecosystem and academia, and relevance in evolving Science Communication landscape and digital media

Key words: Research Communication, Research Dissemination, Societal Impact, Knowledge Translation, Public Engagement, Science Communication, Linguistic Barriers, Tanzania

Introduction

Research plays a critical role in addressing development challenges in Tanzania and globally. However, the translation of research findings into actionable policies and societal change remains limited due to ineffective communication strategies (Assey & Msoka, 2019). While traditional academic publishing is essential for knowledge advancement, it often fails to reach key stakeholders such as policymakers, practitioners, and the general public. As a result, valuable research remains underutilised, hindering its potential to inform policy and drive sustainable development (Damba et al., 2022).

To address this challenge, the authors of this paper propose the adoption of a novel approach: Publish, Tell, and Show (PTS) Framework for Effective Research Communication. The framework, which is the authors' own creation, defines effective research communication as an intentional, sequential and non-negotiable completion of a three-phase process: Publish, Tell, and show in research dissemination. It is designed as a structured approach aimed at enhancing the societal impact of research. This three-phase framework advocates a mind-set shift among researchers, encouraging them to move beyond traditional academic publishing to actively engage with diverse audiences. To claim to have communicated research findings effectively, a researcher must successfully complete the three-phase process: Publish, Tell and Show. The PTS framework envisions a systematic research dissemination practice that makes it imperative for researchers to look beyond establishing the academic strength of the research findings ("Publish") but go the extra mile to increasing awareness ("Tell") and finally to achieving real-world impact ("Show"). This entails that researchers first publish their findings in peer-reviewed journals, then tell their surrounding community through personal networks and social media and finally show their research through compelling public engagement using mainstream media and storytelling techniques. This structured approach aligns with calls for localized research communication initiatives that inspire broader shifts within global research communities (Hill & Walkington, 2016).

The implementation of the PTS framework could serve as a foundational step toward the development of a formalised "PTS Model of Effective Research Communication," integrated into Tanzania's research ecosystem and academia. Such a model would be reinforced through policy interventions that support researcher training, incentivize research communication, and foster collaboration among researchers, policymakers, media professionals, and science communicators. Embedding this framework within national research strategies, Tanzania could strengthen evidence-based policymaking, enhance public understanding of critical issues, and contribute to sustainable development in line with the Tanzania Development Vision 2050 (Planning Commission Tanzania, 2024).

Challenges in Research Communication in Tanzania

Tanzania pledged to commit one percent (1%) of its Gross Domestic Product (GDP) to investment in Research and Development (Rand D) through well-defined research priorities when it signed the Lagos Plan of Action (1980 – 2000) (COSTECH, 2021). Consistent with this commitment, lies a reported surge in research output from universities, research institutions, and independent researchers in recent years (Sangeda & Lwoga, 2017). Despite this progress, research findings remain largely inaccessible and underutilised (Fosci et al., 2019). Several systemic challenges contribute to this disconnect:

Limited Communication Capacity Among Researchers

Many researchers lack the training and skills required to communicate complex concepts in an engaging and accessible manner. Even two decades ago, studies highlighted weak communication capacity among Tanzanian researchers, particularly in their interactions with the media (Mvungi et al., 2005). This challenge persists today, limiting researchers' ability to bridge the gap between academia and public discourse.

Linguistic Barriers and Restricted Access

Globally, academia operates predominantly in English, while the primary language for media and public discourse in Tanzania is Kiswahili (Petzell, 2012). This language mismatch creates a significant barrier to effective communication of research findings, restricting public engagement. Additionally, paywalls and limited distribution channels further hinder access to research, even among policymakers and practitioners (Ferguson, Pérez-Llantada, & Plo, 2011).

Dearth of Research Visibility in the Media

The Tanzanian media landscape prioritises politics and entertainment over science and research. A recent media assessment found that research findings account for only 1% of media coverage, highlighting a critical gap in mainstream reporting on scientific discoveries (Katunzi and Spurk, 2022). This gap is partly attributed to researchers' limited media engagement skills and the absence of institutional efforts to promote research visibility.

Inadequate Institutional Support and Incentives

Most researchers receive little to no institutional support for public communication beyond traditional academic publishing. However, those engaged in donor-funded research projects tend to receive greater backing for dissemination efforts (Assey, 2016). The absence of structured incentives discourages researchers from engaging in broader knowledge mobilisation strategies.

Opportunities for Enhancing Research Communication

Despite these challenges, Tanzania has a growing digital ecosystem that presents significant opportunities for broader research dissemination. Increased internet access and mobile connectivity offer new platforms for researchers to engage with audiences beyond academic circles (MCT, 2023). Moreover, rising public interest in science provides a receptive environment for translating research into actionable knowledge (Daily News, 2023).

Additionally, an emerging science communication community—comprising science communicators, journalists, and research advocates—offers expertise and support to researchers aiming to enhance their communication strategies (Script, 2022). Scholars emphasize that breaking institutional and mindset barriers is crucial for maximizing research impact (Heleta, 2016). The PTS framework, though still in its conceptual stage, has the potential to catalyse a collective movement toward effective research communication in Tanzania and beyond.

By implementing this framework, researchers can extend their reach, engage diverse stakeholders, and ensure that their findings influence policy and societal change. The following sections explore the theoretical foundations of the PTS framework, its three phases, and practical recommendations for integrating it into Tanzania's research landscape.

Theoretical Foundation of PTS framework

Effective research communication is grounded in established communication theories and models that explain how information is transmitted, received, and acted upon. Without inventing an entirely new theoretical concept, the Publish, Tell, and Show (PTS) Framework draws upon several key theories and models to provide a structured approach to maximising

research impact. PTS is a unique approach that synthesises and operationalises insights from these theoretical perspectives and models.

The Agenda-setting theory

The central idea of the agenda setting theory is that media influences the public's perception of the importance or salience of certain issues through choosing which issues to cover prominently and how (ScienceDirect, 2021). It explains how various actors, including researchers, can influence the media agenda (McCombs, 2018). Its relation to the PTS approach lies in the relevance of the "Tell" and "Show" phases. There is a deliberate effort to move the research findings beyond academic settings to achieve greater public and policy influence through the use of media. The "Tell" phase uses social media and journalists' engagement while the "Show" phase uses mainstream media engagement and other communication products such as policy briefs to influence the agenda. The strength of the agenda-setting theory lies in providing a powerful explanation of the media's influence on public and policy priorities as well as highlighting an issue to gain traction and enlightening on why some issues gain attention and others are ignored. However, the theory falls short in explaining how audiences interpret the information, and the media landscape is increasingly getting fragmented, making the public agenda difficult to define. Thus, to manage the strengths and weaknesses of the agenda-setting theory, the PTS framework is incorporating strategic media engagement in its "Tell" and "Show" phases in which it recognises raising the profile of research as an agenda-setting activity but goes beyond, by leveraging communications strategies such as storytelling and media engagement to show impact.

Gatekeeping theory

Information is filtered and controlled before it reaches the intended audience, according to the gatekeeping theory (Erzikova, 2018). At various points, there exists individuals or institutions holding powers over which information can be disseminated or not. For instance, in media, the journalists and editors are gatekeepers, in academia the peer reviewers and journal editors are the gatekeepers while in policy, civil servants, parliamentary committees, and advisors are gatekeepers. In recent years, the concept of "algorithmic gatekeeping" has emerged following the rise of Artificial Intelligence (Perreault, 2022). The gatekeeping power can also be traced in the phases of the PTS framework with the "Publish" phase explaining how researchers have to navigate the publishing process, the "Tell" phase where they have to navigate social media algorithms and buy-in from journalists while in the "Show" phase the researchers have to move past the policy-making bodies. The gatekeeping theory provides an explanation of the pathway for mapping the stages through which information flows to the audience however, it only explains that gatekeeping exists without providing strategies for overcoming gatekeeping. The PTS framework prescribes strategies and actions in engaging with gatekeepers such as through production of tailored content for media and relationship building with policymakers. PTS, thus turns gatekeeping into a prescriptive challenge that researchers must address to make their communication plans move forward and achieve effective research communication as defined by this framework.

Science Communication and Public Engagement Models

Science communication models and Public Engagement models emphasize the importance of making research accessible, clear, and engaging to build trust and understanding (Bucchi and Trench, 2014). However, one of the science communication models: the Knowledge Deficit Model, for instance, has historically assumed public disengagement with science, assuming lack of knowledge. While the model persists in usage among scientists, it is seen as flawed (Grant, 2023) as it assumes that the knowledge gap can be bridged by simply providing facts. However, a more recent Dialogue and Public Engagement with Science (PES) model that has gained favour over the Deficit model, focuses on building trust and relevance and ensuring two-way communication. The PTS framework critiques the Knowledge Deficit model, terming the "Publish" phase of the knowledge dissemination as a crude phase. PTS, instead aligns with more dialogue and engagement principles in the "Tell" and "Show" phases which demonstrate relevance through audience engagement.

Lasswell's Communication Model

Harold Lasswell's model (1948) is a foundational linear model of communication that identifies five key components. These are, *Who* (communicator), *Says What* (message), *In Which Channel* (medium), *To Whom* (audience), and *With What Effect* (impact). The PTS Framework aligns with Lasswell's emphasis on the ***effect*** of communication, particularly in the "Show" phase, where the goal is to achieve societal impact and influence decision-making. For example, the "Show" phase utilizes mainstream public channels to ensure that research findings resonate with policymakers and the public, thereby maximizing their impact.

Osgood-Schramm Model of Communication

The Osgood-Schramm model (1954) highlights communication as an interactive process involving encoding, decoding, and feedback. This model underscores the importance of two-way communication, which is reflected in the "Tell" phase of the PTS Framework. Engaging with audiences through social media and personal networks, researchers can receive feedback, clarify misunderstandings, and refine their messages to ensure effective knowledge transfer.

Diffusion of Innovations Theory

Rogers' Diffusion of Innovations Theory (1962) explains how new ideas, practices, or technologies spread through social systems over time, detailing five stages with communication channels being key at each stage: Knowledge, Persuasion, Decision, Implementation, and Confirmation. In alignment with this sequential nature, the Publish, Tell, Show (PTS) framework, the "Publish" phase acts as an initiation phase for Knowledge. The "Tell" phase builds Awareness and Persuasion through usage of social media and personal networks, whereas the "Show" phase facilitates the Decision, Implementation, and Confirmation of research findings. The Diffusion theory is strong in outlining the stages and the role of communication; however, it is seen as linear and less focussed on the innovator's strategic communication approach. This gap is addressed by the PTS framework by leveraging the stages outlined by the Diffusion theory to provide a road-map led by the researcher for intentionally and sequentially driving their research findings towards real-world impact through defined actions at each phase to facilitate diffusion.

Narrative Theory and Storytelling

The Narrative theory emphasizes the power of storytelling in engaging audiences, conveying meaning, and influencing perceptions. The principle of "show, don't tell" is a key storytelling technique that enhances the relatability and emotional appeal of information (Abbott, 2008) and this approach is upgraded by the PTS framework through the "Show" phase that goes beyond simply understanding the value of narrative to providing a concrete framework for researchers to actively integrate storytelling techniques into their broader communication strategies. It offers a structured way of translating complex research into compelling narratives that resonate with policymakers, journalists, and the public, making research more impactful that can engage with diverse audiences, for greater impact.

Knowledge Translation and Utilisation Theory

Knowledge Translation (KT) theory focuses on moving research evidence into practice, policy, or public awareness. It emphasizes effective communication, stakeholder engagement, and contextual adaptation (Graham et al., 2006). In essence, the PTS framework aligns well with the general principles under KT. The "Publish" phase is inline with initial dissemination and establishing credible knowledge, the "Tell" aligns with broader dissemination and broader knowledge exchange with potential end-users and the "Show" phase aligns with application of the knowledge and impact. But the PTS framework defines "effective research communication" as a successful completion of a three-phase process that is intentional, sequential, and non-negotiable communication phases. The KT outlines the overall process. But PTS offers a concrete, phased methodology for researchers to follow and directly addresses the KT challenge of knowledge sitting unused after initial dissemination.

Two-Step Flow Theory

The Two-Step Flow Theory (1955) posits that information flows from mass media to opinion leaders, who then influence the broader public (Katz & Lazarsfeld, 1955). The "Tell" phase of the PTS Framework incorporates this concept by emphasizing the role of social networks and influential figures in amplifying research messages. Again, engaging opinion leaders, researchers can extend the reach and impact of their findings.

Social Learning Theory

Social Learning Theory emphasizes learning through observation, imitation, and modelling in social contexts (Bandura, 1977). The "Show" phase of the PTS Framework aligns with this theory by demonstrating research findings through real-world applications, case studies, and compelling narratives. Researchers can inspire adoption and support for their work by showing tangible outcomes.

While existing theories and models provide valuable intuitions into communication, they often lack a structured, sequential approach that could guide researchers from traditional academic publishing to broader public engagement (Pardoe, 2014). The PTS Framework addresses this gap by offering a clear, intentional, sequential and non-negotiable three-phase process (Publish, Tell, Show) that integrates elements from multiple theories and models. The PTS approach ensures that researchers can maximize the impact of their work while effectively engaging

diverse audiences. Adopting the PTS Framework, researchers can enhance their ability to influence policy, inform public discourse, and contribute to societal change.

The Publish, Tell, Show (PTS) Framework for Effective Research Communication

The Publish, Tell, Show (PTS) framework, which the authors' own creation, is an idealized model designed to encourage a mindset shift among researchers and provide a clear pathway for enhancing the impact of research communication. This framework advocates for an intentional, sequential, and non-negotiable three-phase approach to communicating research findings, which begins with publishing the evidence, then moves to telling a wider audience about it, and culminates in showing the findings through impactful and compelling public channels. The ultimate goal is for researchers to extend their reach beyond the academic community, ensuring that research not only contributes to scholarly knowledge but also resonates with broader audiences, including policymakers, journalists, and the general public.

Methodology of the PTS Framework

This methodology outlines the step-by-step process that researchers can undertake to achieve mindset transition, and to recognise effective research communication as a key component of the research process with the aim of turning knowledge into real-world benefits for the society. To claim to have communicated research findings effectively, a researcher must successfully complete the three-phase process: Publish (establish credibility), Tell (raise awareness) and Show (achieve real-world impact). However, the successful completion of the process entails the application of specific techniques and strategies that are relevant to each phase.

Phase 1: Publish: This is the initial or foundational phase at which a researcher establishes the credibility of the research evidence generated and shares findings through established scholarly channels such as publishing evidence in peer-reviewed journals to establish academic standing and reliability of evidence. This involves preparation of manuscripts, engaging with peer review and exploring options for open access after considering copyright rules. The researcher goes further to present at academic conferences to broaden scientific discourse and allow knowledge growth, development of theories and progress in the researcher's chosen field. Although it establishes a foundation and credibility, this phase is described by the PTS framework as the "crude phase" in terms of effective research communication. At this phase, the evidence is disseminated to a narrow academic audience often without making its full potential known to the wider public. However, this phase adds weight and legitimacy to the wider sharing of research by providing a reliable source for later communication.

Phase 2: Tell: This is the phase at which the researcher builds upon the bedrock of credibility established in the "Publish" phase and is expected to increase awareness and engagement by sharing with a wider, non-expert audience. According to the PTS framework, this phase is not optional. By neglecting to actively "Tell" it means that research findings remain confined in academic sources or circles and ineffectively communicated to the end-users, even if they are already published and are deemed credible. The researcher must leverage the use of social media with tailored content, the use of personal networks such as emails and community engagements, the development and use of simple summaries, local language communication as well as community events participation. At this phase, the researcher tells the surrounding communities about the findings through translating complex findings into simple language,

avoiding jargons, thus encouraging initial conversations and interactions with wider audiences and creating an opportunity for knowledge sharing and addressing potential questions. Despite its importance, this phase is described as the phase of "Uncommunicated potential" given that the messaging at this phase may not fully explain the relevance and impact of the findings to the intended beneficiaries. This phase is not an end but a stepping-stone toward the next, more impactful phase.

Phase 3: Show: Research communication is considered incomplete and therefore ineffective if this "Show" phase is not fulfilled, since the ultimate goal of research is to inform and improve society. This phase, described by this framework as "Impactful Communication", is regarded as the highest level of research communication. It focuses on the translation of research findings into real-world impact by demonstrating the relevance and implications of the findings for policy, practice and the society's well-being. Rather than merely stating what has been published, researchers employ storytelling techniques to bring their findings to life, making the research resonate on an emotional level. Drawing on Anton Chekhov's famous advice "show, don't tell" this phase focuses on translating research into tangible, real-world information that can influence decision-making and contribute to social change. According to the PTS framework, this phase intends to influence policy and practice through compelling advocacy strategies, promote public understanding and behavioural change through compelling storytelling and impactful narratives as well as fostering collaborations for greater impact through strategic partnerships with media, communications professionals and stakeholder engagement. This is achieved through mainstream media engagement such as working with journalists and science communicators to ensure accurate coverage, translating research into relatable stories to illustrate importance and impact, creating policy briefs and recommendations for relevant stakeholders, organising public engagement events such as conducting workshops, seminars and exhibitions, using multimedia storytelling such as videos, documentaries, podcasts etc and building relationships with policymakers by actively engaging government agencies, parliamentary committees and other relevant bodies.
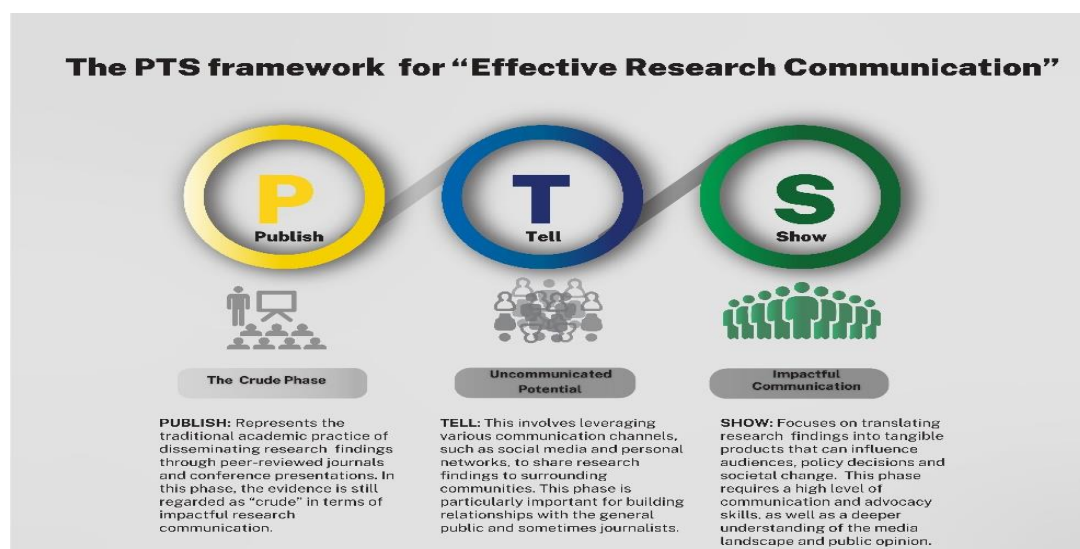

Figure 1: The PTS framework for Effective Research Communication: Picture credit: Design by Syriacus Buguzi, with help of Canva software).

The above PTS framework methodology provides a structured approach for researchers to move beyond traditional academic dissemination and work towards more impactful communication. Each phase builds upon the previous one, ensuring that research has the potential to reach and inspire a wider audience, ultimately leading to real-world change.

Implications of PTS framework for Researchers and Policymakers

The Publish, Tell, and Show (PTS) Framework represents a transformative approach to research communication, and provides an all-inclusive roadmap for researchers to maximize the societal impact of their work through various ways:

Shifting Research Culture- From Academic Isolation to Public Engagement

Traditional research dissemination has predominantly focused on academic publishing, with peer-reviewed journals serving as the primary metric of success (Alperin et al., 2019). While this approach ensures rigor and credibility, it often limits the societal impact of research, as findings rarely reach non-academic audiences (Bucchi and Trench, 2014). The PTS Framework challenges this paradigm, emphasizing the importance of moving beyond academic circles to engage with broader audiences, including policymakers, practitioners, and the general public.

The framework's sequential approach "Publish, Tell, Show" compels researchers to view research communication as an integral part of the research process rather than a peripheral activity. This shift aligns with the principles of knowledge translation, which stress the need to move research evidence into practice, policy, and public awareness (Graham et al., 2006). Adopting the PTS Framework enables researchers to ensure their findings reach stakeholders who can translate them into actionable solutions, thereby enhancing the real-world impact of their work.

For instance, the "Tell" phase leverages social media and personal networks to share research findings with surrounding communities, a practice supported by the Diffusion of Innovations Theory (Rogers, 1962). This phase ensures that research reaches opinion leaders and key stakeholders, who can further amplify its impact. Similarly, the "Show" phase focuses on translating research into compelling narratives and tangible outcomes, aligning with narrative theory's emphasis on storytelling as a tool for engaging audiences and influencing perceptions (Abbott, 2008). Integrating these elements, the PTS Framework promotes a more inclusive and impactful approach to research dissemination.

Fostering a Mind-set Transition among Researchers

The PTS Framework fosters a mind-set transition among researchers, encouraging them to move beyond traditional academic dissemination and embrace communication as an ongoing, interactive process. This transition is critical for ensuring that research findings are effectively translated into meaningful societal contributions. The framework's emphasis on audience adaptation and feedback mechanisms, as highlighted by the Osgood-Schramm Model (Schramm, 1954), ensures that researchers can tailor their messages to diverse audiences and refine their communication strategies based on audience responses.

This shift in mindset increases the likelihood that research outcomes lead to tangible policy changes and societal impact. For example, researchers who actively engage with the public

during the "Tell" and "Show" phases are more likely to build trust, challenge misconceptions, and inspire action based on their findings. This aligns with Social Learning Theory (Bandura, 1977), which emphasizes the role of observation and modelling in shaping behaviours and attitudes. Demonstrating the real-world applications of their work, researchers can inspire others to adopt or support their findings, thereby amplifying their impact.

Enhancing Collaboration

A key strength of the PTS Framework lies in its emphasis on collaboration between researchers, journalists, and policymakers to maximize research impact. This approach addresses a critical gap in traditional research dissemination practices, which often fail to engage key stakeholders in the communication process. The framework encourages researchers to build strong partnerships with journalists and media professionals, ensuring that their findings are communicated effectively and accurately to diverse audiences.

The role of journalists in amplifying research findings is supported by the Two-Step Flow Theory (Katz & Lazarsfeld, 1955), which highlights the importance of opinion leaders in disseminating information to the broader public. Collaborating with journalists enables researchers to ensure their work reaches a wider audience and resonates with policymakers and the public. Similarly, the framework's emphasis on engaging policymakers aligns with the principles of knowledge translation, which stress the need to translate research findings into actionable policies (Graham et al., 2006).

For example, during the "Show" phase, researchers can participate in policy briefings, workshops, or advisory committees to ensure their work informs policy discussions. This collaborative approach fosters mutual understanding and trust, enabling stakeholders to leverage their unique expertise and resources. Creating a collaborative ecosystem, the PTS Framework ensures that research contributes to addressing pressing societal challenges and informs evidence-based decision-making.

The Broader Implications

The adoption of the PTS Framework has the potential to address some of the key challenges facing research communication in Tanzania and other similar contexts. These challenges include limited Public Engagement with science, low visibility of research findings, and a lack of collaboration between researchers and policymakers. Promoting a structured, sequential approach to research communication, the PTS Framework helps bridge these gaps and creates a more inclusive and impactful research culture.

In Tanzania, where research often struggles to reach beyond academic circles, the PTS Framework offers a practical solution for enhancing the visibility and impact of research. Encouraging researchers to engage with the public, media, and policymakers ensures that research contributes to addressing pressing societal challenges, such as health, education, and environmental sustainability. This aligns with the principles of public engagement and science communication, which emphasize the importance of clear, accessible, and engaging communication to build trust and understanding (Bucchi & Trench, 2014).

Beyond Tanzania, the PTS Framework has the potential to serve as a model for other countries seeking to enhance the societal impact of their research. Emphasizing the importance of

collaboration, audience adaptation, and storytelling, the framework provides a universal approach to research communication that can be adapted to diverse contexts and disciplines.

Conclusion and Recommendations

Effective research communication, which is defined by the PTS framework as an intentional, sequential and non-negotiable completion of a three-phase process: Publish, Tell, and Show, is vital for ensuring that research contributes to societal progress. The framework provides an intentional, structured, progressive approach that encourages researchers to move beyond traditional academic publishing. The three phases: Publish, Tell, and Show, demonstrate the need for a holistic approach to research dissemination. While publishing establishes academic credibility, telling engages a wider community, and showing translates research into real-world action. Researchers are encouraged to recognise effective research communication as a key component of the research process through the PTS framework, thus empowering researchers to consider the broader implications of their work, guiding them to engage with a diverse set of stakeholders and ultimately drive societal change. Despite being at conceptual stage, the framework has the potential to evolve into a benchmark model upon which researchers could assess their progressiveness from traditional academic dissemination to embracing impactful research communication. The adoption of the PTS framework could lead to a fundamental shift in how research is communicated, fostering a research culture that values public engagement, policy influence, and societal impact. It also addresses the specific challenges of the Tanzanian context, including linguistic diversity and the evolving media landscape.

For the PTS framework to be integrated into Tanzania's research ecosystem, the following are recommended:

Development and Piloting of the PTS Framework

Universities and research institutions should develop and pilot the PTS framework as a model for Effective Research Communication. This model should be rigorously evaluated and then incorporated into research training programs, ensuring that researchers are equipped with essential communication skills.

Incentivizing Effective Research Communication

Research funding agencies should include communication, and dissemination plans as a key component of research proposals. Researchers' communication efforts should also be assessed as part of their performance evaluations. Furthermore, awards and recognition programs should be established to celebrate researchers who excel in communicating their work to broader audiences.

Fostering Collaboration Between Researchers and Communicators

Platforms and mechanisms should be established to encourage collaboration between researchers, science communicators, journalists, and media professionals. Networking events, science communication units, and online directories of communication experts would facilitate these partnerships.

Strengthening Media Capacity for Science Reporting

Training programs for journalists and media professionals should be organized to enhance their ability to report on scientific issues accurately and engagingly. Media houses should be encouraged to establish dedicated science desks and invest in science journalism.

Developing National Guidelines for Research Communication

The Ministry of Education, Science and Technology, along with relevant stakeholders, should develop national guidelines for research communication. These guidelines would promote the principles of the PTS framework and provide practical guidance for researchers.

Future Research

Further research is needed to appraise the impact of the PTS framework on research communication practices in Tanzania. Pilot studies could assess how well the framework facilitates broader public engagement, policymaker influence, and societal impact. Future research could also explore the scalability of the PTS framework in other contexts and identify best practices for adapting it to different research ecosystems. Additionally, research could investigate how the framework can be continuously improved to address emerging challenges in science communication, particularly in the digital age.

Acknowledgments

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