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Article

Integrating Ethnofuturism and AI: A Framework for Sustainable Communication Design

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Abstract: AI is on the rise in the field of Visual communication and branding, translation, Content creation, Interaction design and cultural interpreters. Whilst symbols might have the potential to provide creative opportunities, an AI only approach can result in out-of-community symbols being given agency, stereotypes being created, source of the training material being erased, digital production becoming more environmentally costly and even lying about local authorship. When thinking about culture as 'Ethnofuturism' as a 'living source' of imagining the future, as opposed to a typological culture in terms of 'retrieved' themes from a past. The concept of this mini project is to be visionary and to create an Ethnofuturist AI Framework for Sustainable communication Design (EFA-SCD). It's a combination of community leadership, a multitude of other concepts of community futures, cultural stewardship, data stewardship, and some limited co-creations with humans and AI, along with communication, accessibility and environment-consciousness. It is made up of 6-stages, which include: Relate - Govern - Curate - Co-generate - Validate and Return. A decision gate will be provided at the end of each stage that will stop the work of this project, if the necessary approvals and/or traceability/community review is not obtained. The field-based scores are not explored as simulated evidence for a multilingual climate-resilience campaign while examples of the use of this framework are provided in a scenario-based pilot. The strength of the governed workflow not only for the community to approve, but also for cultural authenticity, language accuracy, for accessibility and transparency and for environment - and for efficient production workflows, with AI as an added bonus for ideation, adaptation and production. This aspect is highlighted as a last phase of this project, when these rights become explicit and design decisions are subject to scrutiny and held accountable, in order to restore the right and control of the communication to the culture itself of which it is significant and to which it belongs in Ethnofuturism Challenge - Artificial Intelligence in Sustainable Communication Design.
Keywords: Ethnofuturism, artificial intelligence, sustainable communication design, cultural governance, co-design, Indigenous Data Sovereignty and Responsible AI

1. INTRODUCTION

Communication design can definitely impact on the perception of the institution, product, public issues and potential future. Produces work based on typography, image, narrative, interface, motion and sound communication of information and organization. Many of these tasks are now possible, thanks to the ability for Generative AI to quickly draft, suggest images, provide translations, create layouts and adjust content to that layout and provide summaries. This can come in handy for small business to test out a few different concepts, add language into the mix and generate the material for any medium. However, there's a downside as well – the quicker something occurs isn't necessarily the more accurate it is. Even when it is well known and easy to understand the picture/sentence may be historically incorrect, culturally inappropriate, environmentally and/or politically damaging. The harm is compounded in two ways, where a source culture is marginalised: 1) Where a wrong output occurs it can exacerbate the harm beyond contagion in a community. From here, it's all about whether AI is to be embraced or rejected in the field of communication design. Questions such as: What does it need to communicate for, who needs to communicate

knowledge into it, what will the project do with the model, who (or what) will hear it and how, who will gain from it and in what ways, and what will be the basis for the assessment of the project after communicating the model, are more important. What Ethnofuturism can contribute to the questions is the future enrichment and a documentary approach towards the cultural aspect. It was especially noticeable when it comes to the historical debates about the Finno-Ugric culture, which were associated with its own cultural memory and modernity, as well as its prospects of continuity [1]. The notions used are also shared within the current debate on design that questions the one trajectory of technologies. Ethnofuturism here is intentionally plural design lens as communities' interpretations and transformation of the living knowledge and their imagination of futures occurs in their own terms. Though some might consider it to be an “ethnofuturist” recipe, this interpretation is a gesture towards the notion that one doesn't have to, nor that one should, necessarily embrace “levels of reduction”, if one can loosen the interpretation to include an “ethnofuturist” aesthetic. Prompt part that is interchangeable to not be a pattern, cost, ritual, oral history or language. It is linked in a network of persons, areas, responsibilities and values. Public knowledge and knowledge that is limited in access because of age, season, gender, kinship and ceremony as well as digitally captured knowledge that we don't want. When negotiating with particular communities, Indigenous Protocol and Artificial Intelligence is important to remember that Indigenous ideas, thoughts and feelings are not monolithic, there are not one dimensional Indigenous protocols and there is no ‘how to' in relation to Indigenous Protocol. Hence a general design of the proposed should not be a copy of any of the above mentioned cultures. Mechanism to follow to hand out to communities each set of rules.

Table 1: Working Definitions Used in the Proposed Framework

Concept	Operational meaning in this project	Design implication
Ethnofuturism	Community-led use of living cultural knowledge to imagine and construct plural futures.	Begin with future aspirations and cultural authority, not borrowed motifs.
Artificial intelligence	Computational systems used for analysis, retrieval, generation, translation or adaptation.	Assign a bounded role, approved data and accountable reviewer.
Communication design	Strategic creation of messages and experiences across visual, verbal, sonic and interactive media.	Evaluate meaning, audience, channel, access and consequence.
Sustainability	Long-term cultural, social, environmental and economic viability.	Measure all four dimensions across the design life cycle.
Cultural authority	People or bodies recognised by a community as able to decide access, interpretation and use.	No AI use substitutes for their decision or ongoing relationship.

2. PROBLEM STATEMENT, AIM, OBJECTIVES AND RESEARCH QUESTIONS

A. Problem Statement

Essentially, the key workings of the already available AI driven designed is a designed prompt and picking through a series of designed options. A system for community consent and for data of culture-origin and benefit-sharing/post-release withdrawal is in general, not included although a system for brand review and technical quality control could be included. However, it might be hard to establish an accurate picture of the learning that has taken place and the level of artefacts created could be for culturally distant groups. This is because the design team is able to produce an attractive or funny communication and this can also contribute to the production of a culturally 'disorientating/culture extractive' communication. If the AI is not being used by any community, however, they may not be able to use some of the tools they might want to use such as translation, accessibility, or archiving/prototyping. In all contexts related to crafting future, cultural policy, AI and sustainability there is a need for a future perspective.

B. Aim

The goal of this mini-project is to create and share a process-oriented strategy of how to implement ethnofuturist thinking and achieve AI communication design in the context of sustainable design without giving up the authority of the people, their cultural integrity, transparency and accessibility as well as environmental responsibility.

C. Objectives

• Write down the relationship of Ethnofuturism and AI and Design of Sustainable Communication. Through the use of AI, identify culture, ethical, environmental and work-related risks for cultural communication. Set-up a 6-part design process, with quantifiable decision gates and community managed. Determine standards of germ, culture and communication quality and inclusion and ecological efficiency. Draw on a realistic example of a project and make some proposals on how to implement this project.

D. Research Questions

RQ1: When it comes to communication, what would be the possibilities of the "ethnofuturist" principles to not become style of a visual? RQ2: What governance, and/or workflows are needed for, and/or required for, authority, provenance and consent? RQ3: What sign(s) and symptom(s) will culture, society, environment and economy undergo to be sustainable? RQ4: What are the barriers, restrictions, facilitation and automation of AI? In other community media / other community, what be the flexibility of the framework? (RQ5)

3. REVIEW OF RELATED WORK

A. Plural Futures, Pluriversal Design and Design Justice

Ethnofuturism is a part a large project, which aims to confront the monistic conception of progress. However, as Sarapik shows, the word, like its history has emancipatory possibilities and responsibilities. This tension is wanted and "culture can be a force for future agency, or it can be 'simplified or mobilized in exclusionary ways.'". As for Escobar I speak about the pluriversal design of Escobar which confers multiple worlds, multiple forms of life [7]. Design justice is the pragmatic issue of distribution 'Who is around, who is in charge, who is better off and who would be worse off with an alternative product design [6]

B. Indigenous Protocols and Cultural Data Governance

The most recent investigation was of Aboriginal protocol and cultural data governance. From this perspective, the Indigenous protocol and AI position paper embraces the concepts of relationality, locality, responsibility and diversity of indigenous knowledge systems [3]. There are complements for a data open (and CARE Principles for Indigenous Data governance [4] oriented) Collective Benefit, Authority to Control and Responsibility and People and purpose oriented. Using local contexts TK labels is helpful, and can be developed by a community to communicate their origins and access/consent rules to the re-use of TK [5]

C. AI, Cultural Heritage and Communication Practice

Communication Practice (H.) Cultural heritage. 2020 C – AI – C_2020.C_019 The potential for documentation opportunities as well as access and creative interaction and insights into the challenges of authenticity and representation of minorities, privacy and responsibility are all analysed by AI and cultural heritage research. The number of different cultural products generated by the AI can be used to influence the perceived value and cultural identity in the New Year Prints, but the results of the research cannot be generalised and applied to all communities, according to Zhang et al. [11]. AI should be leveraged to create content but as Engwi's graphic design journey with co-design indicates, AI should also be used in creating designers—i.e., designers need to understand the potential and limitations of AI.

D. Sustainability and Responsible AI

According to the UNESCO's Recommendation on the Ethics of Artificial Intelligence is related to humans rights, diversity and inclusion; human oversight and the flourishing of environment [8]. Moreover, its report on ‘AI and culture' (2025) suggests that it may be a danger of ‘homogenisation and exploitation of cultural data and ecological implications' and ‘development of access and culture' can be seen as opportunities [9]. In a study that talks about ‘Green AI', not only conducting the study, but also reporting the computation cost and efficiency of the study would be necessary. However, lessons can also be learnt by the sustainable interaction design community who are beginning to recognise a need for suitable toolkits where within users and designers can consider digital infrastructures and energy in their daily design practice.

Table 2: Literature Themes and Their Contribution to EFA-SCD

Theme	Representative source	Contribution	Unresolved gap
Ethnofuturism	Sarapik [1]; Pärl-Lõhmus et al. [2]	Connects cultural continuity with future orientation.	Limited operational guidance for AI design projects.
Indigenous AI protocol	Lewis et al. [3]	Relationality, locality and community accountability.	Must be translated into project-specific decisions.
Data governance	Carroll et al. [4]; Local Contexts [5]	Authority, benefit, responsibility, ethics and labels.	Design teams may not connect labels to creative workflow.
Design justice	Costanza-Chock [6]	Community leadership and redistribution of design power.	AI task allocation needs explicit decision rights.
AI and culture	UNESCO [8], [9]; Pansoni et al. [10]	Human rights, diversity, sector risks and oversight.	Cultural review is often separate from sustainability review.

4. PROPOSED ETHNOFUTURIST AI FRAMEWORK FOR SUSTAINABLE COMMUNICATION DESIGN

A. Framework Logic

EFA-SCD is not a series of prompts, but also and equally a governance and production process. New content/language and audience are added in for multiple models, new uses become evident and the process continues. There is still one consultation box at the beginning of the project – it's the community authority and that is the one that will have to stay. Relate, Govern, Curate, Co-generate, Validate and Return are these 6 steps

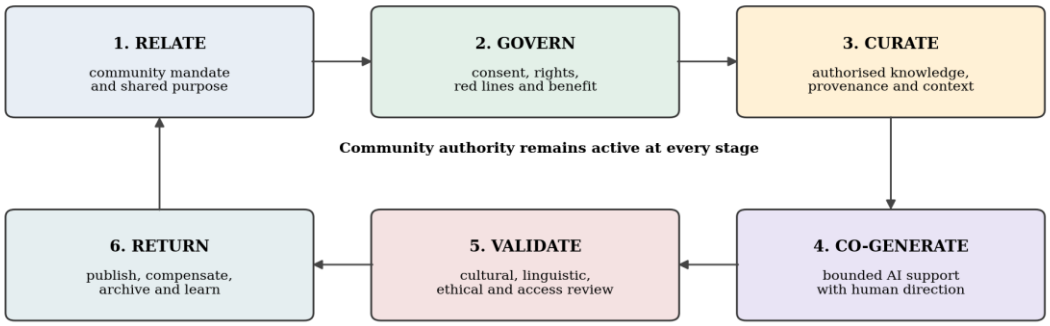

Figure 1: Six-stage EFA-SCD cycle for community-governed AI-assisted communication design.

B. Stage 1 - Relate

The question of relationship (who's who), mandate (who does what) and shared future (who will benefit or suffer if the relationship doesn't take place) is set up by the project team. Participants identify culturally designated speaker that speaks on behalf of Target Groups - who and what the project will benefit (affectees). The team decides which aspect they wish to improve in their desired population and the team develops a question which they communicate to the community and asking for a measurement of the team's effectiveness. It also lists those “no-goals” - when a community action campaign fails to become a community asset of a brand. To pass through the Relate gate, needs to comprehend the meaning of purpose, representation and decision.

C. Stage 2 - Govern

Govern defines Permissions, Rights and Responsibilities and red lines. There are 4 types of potential source material public, permissioned, restricted and prohibited. Responsible to grant Approval, Review and Withdrawal Any financial, credit and IP-related issues, benefits and negotiation as well as dispute handling are agreed upon in the contract before production. The gate should have recorded permission along with some form of answer in case it is used inappropriately or, if there is any potential to get the model leaked.

D. Stage 3 - Return

Return: to external design/technology supplier (and client): Skills and benefits returned to external design / technology supplier and documentations returned to client. When providing offering: Community master files (Communities can access); Training for participation and/or withdrawal by community. Lessons learnt shared up to next cycle governance agreement for further consideration. Empower more ownership and competence in dealing with consultation with those who have returned converts.

Table 3: Core Principles and Operational Tests

Principle	Operational test	Evidence
Community authority	Can recognised participants approve, refuse, revise and withdraw uses?	Decision register and sign-off
Plural futures	Does the work express a community-defined future rather than a generic technological future?	Future brief and scenario record
Relational accountability	Are obligations to people and place visible throughout the life cycle?	Roles, contact and remedy plan
Provenance and consent	Can each cultural input and generated claim be traced to permission?	Source ledger and usage conditions
Transparency and reversibility	Can audiences identify AI involvement and can the team correct or remove the output?	Disclosure and withdrawal process

5. AI TASK ALLOCATION AND DECISION RIGHTS

A. Risk-Based Task Classification

However, there are some aspects of tasks and culture which aren't ‘AI friendly' at all. There can be differences in risk level among equivalent technical function. Material that is part of the performance and read by a fluent speaker – parts of the material that are used as announcements to the general public may be low risk with ceremonial language

not acceptable. Abstract experimentation with colour may be fine if it is done to produce visuals to engage with the themes of the culture, but the copying of a modern-day artist could potentially be a violation of the artist's copyright, and/or cultural community policies. These result in the following four classes in the EFA-SCD as follows: assist, review-required, restricted and prohibited. Providing this model, not the classification – it's the governance group.

Table 4: AI Task and Decision-Rights Matrix

AI task	Default class	Permitted use	Required decision / control
Interview-note clustering	Review-required	Find themes in consented, de-identified notes.	Research lead verifies context; community reviewer corrects categories.
Copy and headline variants	Assist	Draft alternatives from an approved message map.	Designer selects; language and cultural reviewers approve.
Image or layout generation	Restricted	Explore non-sacred, authorised concepts and composition.	Source ledger, style restrictions and cultural review.
Model fine-tuning on cultural archives	Restricted / prohibited	Only with collective authority, security and a benefit plan.	Data-governance agreement, audit, retention and deletion controls.

B. Human and Community Roles

A minimum team should include a data/AI steward, one or more of recognised cultural authority partners, people from the audience, a language and/or subject reviewer and an accessibility and sustainability reviewer as well as a communication designer. In small projects, several individuals might have a number of decision roles; however, decision rights are kept separate. There may be some content technically correct that may not be culturally appropriate for the AI steward.

C. Five Decision Gates

Gate is a fixed DECISION not impression during which is recorded. The prototype element gates (with traceability gate) and cultural communication access & sustainability gate can also be referred to as sign-off gates, if the projects are in the sign-off gate they will be returned to the previous gates with the assistance of the return/traceability gate.

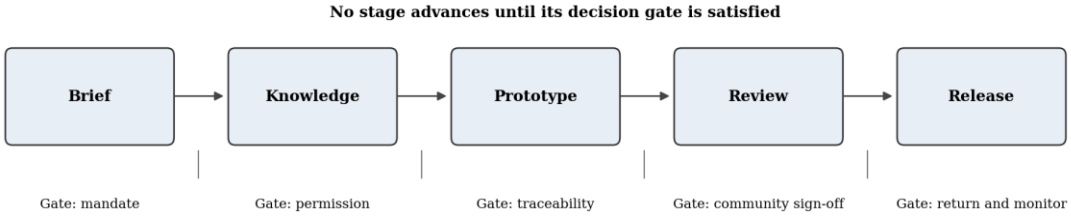

Figure 2: Stage-gate control model for the EFA-SCD workflow.

6. RESEARCH METHOD AND IMPLEMENTATION PROCEDURE

A. Methodological Approach

Mini Project is a conceptual research and is conducted as a design writing, which are based on literature synthesis, construction of scenarios and demonstration. So, this gift is/describes an “actionable design process” NOT a “claim about the statistical behaviour of a population.” As part of the Literature synthesis it's noticed that there are requirements like ethnofuturism, design justice, cultural data governance, responsible AI and sustainable design. The principles, stages, roles and gates and measures are correlated with the requirements. Then, a “pilot” setting up the data sets a new example, trying out the framework to understand if it can serve as the basis for common communication tasks and find the trade-offs.

B. Implementation Procedure

• Determine the problem, future desired, and authorities involved with the communication.

• Create a map that identifies sources of cultural resource and ownership, sensitivity, permission, retention and no use areas.

• Construct an outline for your message -- as well as for your accessibility requirements prior to putting anything written on the page.

C. Cultural Data Record

This short form shall contain details on source objects to be identified, description of the source object, community expert/owner of the source object, location, condition of using tre-valuations for the project, condition of uploading to external AI service, condition of delivering a translation/condition of derivation, condition of an attribution, condition of using/benefit/payment, condition of retention, evaluator and date of re-evaluation. Apart from the record [5] the community will be able to use TK or Biocultural Labels. Keep track of files' apps via export and archive records

D. Resource-Conscious AI Procedure

With an adequate environmental training, environmental restraint is realized. The team says its questions are, “Do we need AI?” When no generation occurred, the rule-based tool/template isn't required if it can be done by hand or if it can be hand edited. Where there is some AI available to assist, the team follows the sequence of AI first (before the use of high-resolution), minimises the number of variants, does not repeat marginally different prompts, reuses approved content and implements lower file sizes of the delivery - records model uses. In what an organisation named International Energy Agency (IEA) calls “more than just a technical issue”, energy consumption of data-centers can grow exponentially turning it into a design matter as well as a technical one [16].

7. EVALUATION MODEL

A. Cultural Integrity Index

The CII is referred to as A – Cultural Integrity Index. The Cultural Integrity Index (CII) translates the review judgments into an open and transparent summary of the review; the comments are not literal meant to be made visible to the public but are included. Authority and consent (AU), provenance (PR), cultural fidelity and contextual nuance (CF), language accuracy (LA), community benefit (BN) and reversibility (RV) are all measured within a range of 0-100. Weight estimates are only approximate, and should be adjusted as needed by community involved. A situation: if some condition is not allowed to be reduced or waived, it cannot be used to "mark up" another condition that is at a lower score, e.g. limited knowledge cannot be used to "mark up" another lower score. for example.

$$CII = 0.25AU + 0.20PR + 0.20CF + 0.15LA + 0.10BN + 0.10RV \quad (1)$$

B. Sustainable Communication Score

The Sustainable Communication Score (SCS) is a combination of the Cultural Integrity Index and various communication factors such as communication effectiveness (CE), accessibility (AC), transparency (TR),

environmental efficiency (EE) and adaptability or maintainability (AD). Again, the score is not an instruction to approve, but rather it's a measure to assist the discussion. More than 1 number—or just score—should be included with the reasons.

$$SCS = 0.25CII + 0.20CE + 0.15AC + 0.15TR + 0.15EE + 0.10AD \quad (2)$$

C. Environmental Efficiency

Environmental efficiency proxies comprise of number of models called, energy or carbon consumed by the generation (if reported by the provider), generation resolution, area printed, material used, percentage of re-used material (by the provider) and useful life. It was agreed that one of the calculations used was the calculation of a relative efficiency and a budget/baseline was agreed using the selected working flow. That there is no one 'right' way of recording energy provider level storage data; if there is such information, it is included in the project; if there is not, then provider level measured (or proxy or estimated) data is recorded as such.

$$EE = 100 \times [1 - \min(1, \text{Resource Use} / \text{Agreed Resource Budget})] \quad (3)$$

Table 5: Evaluation Indicators and Evidence

Dimension	Indicator examples	Evidence and method	Minimum condition
Cultural	Authority, provenance, fidelity, language, benefit, reversibility	Community review, source ledger, approval record	No prohibited or unapproved cultural content
Communication	Clarity, relevance, recall, legibility, channel fit	Comprehension test, design review, audience feedback	Critical message understood by target users
Accessibility	Contrast, captions, alt text, reading level, device and language access	WCAG checks, assistive review, low-bandwidth test	Essential content available in accessible form

9. ILLUSTRATIVE PILOT: “RIVER AND SEED 2040”

A. Baseline and EFA-SCD Comparison

If you take an AI first process for instance, you'll end up with a designer who will take a few ideas at best and resort to the web for the final stage: client feedback. The 6 stages, task matrix, source ledger and 5 gates are utilized in the EFA-SCD process. Assume that there are six Review Dimension hypothetical scores (0-100). The field measured values are yet to be performed. They demonstrate ways to make the differences and assumptions transparent on a project report.

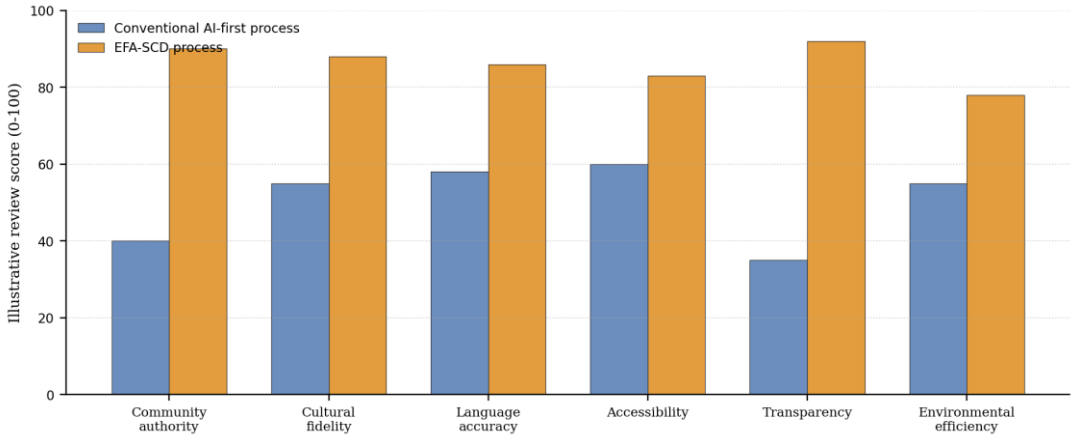

Figure 3: Illustrative comparison of a conventional AI-first process and the EFA-SCD process; values are simulated.

Table 7: Illustrative Review Results and Interpretation

Measure	AI-first baseline	EFA-SCD	Illustrative interpretation
Community authority	40	90	Decision rights move from final consultation to continuous approval.
Provenance	35	92	Approved sources and permissions are recorded at item level.
Environmental efficiency	55	78	Generation caps, reusable templates and compressed outputs reduce waste.
CII / SCS	44.2 / 55.1	88.6 / 85.4	Composite scores support discussion but do not replace gate decisions.

B. Interpretation of the Demonstration

Changes in authority, source and transparency - who is in control - are the most important illustrative changes, as is evidence maintenance. The only thing required for the increase of cultural fidelity is having the right input from recognised inputs, local approvals and a right of refusal not troops that are ready to become some kind of ‘cultural competent'. The improvements for accessibility and environmental efficiency are more moderate as there is still some technical work, channel test and provider information to be done.

10. RESULTS AND DISCUSSION

A. Response to the Research Questions

The answer to the research questions is given below. With regard to Ethnobuturism (future making), RQ1 seems to have opted to concentrate on the process of becoming a future and (re)defining the process of becoming a future, a process that doesn't necessarily rely on a visual borrowing but that is based on the community. The issue of a future is at the very beginning of the framework - authority / relationship. Cultural-data records, task classification, named roles and decision gates are the methods that have been used to handle with RQ2. These controls will not affect anything when not used in conjunction with the design/AI. RQ4 response will be recorded in the task and decisionrights matrix. This is stored as a separate weight class (as other classes weight and knowledge class, reviewers and red line) and answers to RQ5 are retained in this since class weight is associated to any particular weight of vehicle. Participating Community – with some purpose to the rules (Part of this is the questions and records) But, it is a balance and a universal "checklist" would compactly express the intent of the framework and desired de-homogenisation

B. Main Contribution

What the original trinity was missing – linking the domains which are normally considered separately is the key to the project. Vision of the future (ethnofuturism); authority (design justice); relationship and accountability (Indigenous data governance); messaging and target of audience (communication design); transparency and human oversight and risk control with the use of responsible AI (awareness of resources during life cycle) (sustainable design). The concepts are transferred to a project structure which can be repeated with in the six stages

C. Practical Value

Could be applied to public Information, cultural institution, education, tourism, community enterprise and to civic interfaces and branding – communication of living cultures and heritage interpretation. A formal data agreement (source ledger) and 3 essential gates are also available for larger projects and there is an option for small projects to use a one-page charter for auditing/independent review. This means neither the client has to be taken aback at any expectations, nor does the cultural participation / translation, the accessibility, the documentation / return and the finances have to be concealed.

11. RISKS, LIMITATIONS AND FUTURE SCOPE

A. Key Risks and Controls

Table 8: Major Implementation Risks and Recommended Controls

Risk	Possible consequence	Recommended control
Tokenistic participation	Community members are consulted but cannot change decisions.	Written decision rights, paid roles and evidence of revisions.
Cultural flattening	Distinct groups, histories or protocols are blended into a generic style.	Specific source context, subgroup review and prohibited mixing rules.
Unclear training provenance	Generated content reproduces protected or unlicensed material.	Use authorised retrieval, provider due diligence and non-imitation rules.
Dependency and lock-in	The community cannot maintain or edit the work without a vendor.	Open formats, local training, editable masters and exit plan.
Exposure after release	Restricted knowledge is copied beyond the intended audience.	Access controls, monitoring, takedown route and minimum disclosure.

B. Limitations

The methodology is conceptual and simulation of Pilot values of the system is carried out. No energy audit was performed and no measurements made with a community-level fieldwork/energy audit. Priorities listened to in the community may differ from the numerical priorities which are simply a reflection of this pro-forma. A person's authority will be questioned in the community: question the notion that the person is speaking as representative of – or on behalf of – the community in a project team. The non-use of other terms which do not refer to the western language and thought might be better alternative (some may not like to be described as EthnoFuturistic).

C. Future Scope

Further development and testing of the framework is required in a collaborative manner with the communities – with a positive attitude on their part. By analysing the levels of comprehensibility and trust through research, cultural appropriation, workload and cost and proxy to the environment of the conventional and governed activity workflows can be explored. It may be possible to define machine-readable metadata values over the asset and pass these parameters with the asset – restricted assets might only be able to be used in protected services. A transparent website could be used to enable the community member defined weights to become assessment weights.

12. CONCLUSION

Ethnofuturism, considered in the field of the AI and communication design, is not only without a model influence, but also a blend of tradition and technology. It should be regulated based on societies—the societies should be able to decide concerning the relation of their society with the future and consequently, regulate the relation of their society, with culture and with relation with the computational vehicles. This is done by using the six steps of EFA relationship with SCD – Relate, Govern, Curate, Co-generate, Validate and Return. Is visible on it's task matrix,

cultural-data log and decision gates and decision models. In this next scenario (River and Seed 2040), AI can help with clustering or drafting, accessibility and translation/adaptation but not with sacred material or imitation, or interviews (raw) or synthetic voice. The answer from the experiments in the simulated environment won't necessarily be a sign of whether experiments will work in the field, but it will be a simple means to test the feasibility of experiments to be performed in the field. Emphasizing the following key finding from our data: It is a question of the nature of the relationships and how the model is determined that will probably most influence responsible innovation – and not the novelty of the model. Responding to the questions of communal sustainability of the design should be done at the same time: Is the message culturally legitimate? Is there a social purpose – can it be accessed? Is it a production that is proportional with environment? Will it provide a good palatable crop? Design: form & communication; bounded capacities = AI; is right to imagine multiple futures = ethnofuturism; accountability = governance. But this isn't the only kind of cultural future, technology is capable of sustaining this quest for culture, and even acting its part.

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