

From Vulnerability to Resilience:

Engagement Pathways in
Technology-Enabled
Community Tourism

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TROY School of
Social Sciences

BE THE
change



"A smart sustainable city is an innovative city that uses information and communication technologies (ICTs) and other means to improve **quality of life**, **efficiency** of urban operation and services, and **competitiveness**, **while** ensuring that it meets the needs of present and future generations with respect to economic, social, environmental as well as cultural aspects."
(UNECE and ITU, October 2015)

"The National Park Service
preserves unimpaired the
natural and cultural
resources and values of the
national park system for the
enjoyment, education, and
inspiration of this and future
generations."
(National Park Service
Department of the Interior)

Why Resilience Matters

- Climate disruption
- Overtourism
- Economic uncertainty
- Social fragmentation





Integrating AI technologies into sustainable development efforts holds immense potential to address our wicked problems.

- Environmental Monitoring and Conservation
- Energy Efficiency and Climate Change Mitigation
- Sustainable Agriculture and Food Security
- Smart Cities and Urban Planning
- Healthcare and Well-being

*Reference - AI for Social Good (AI4SG) - Paris21
draft from April 24 by Dilek Fraisl*

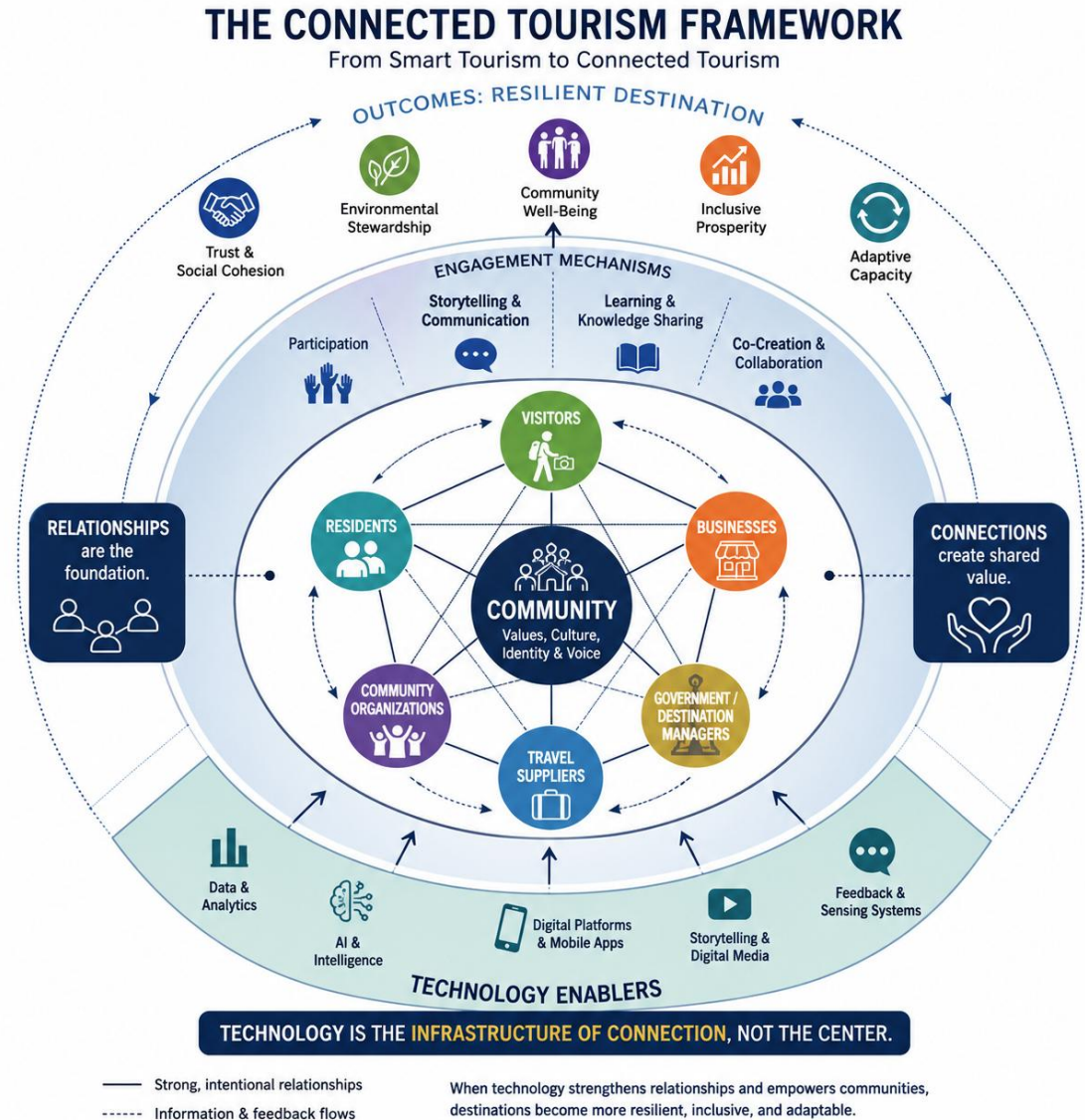
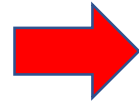


Instead of asking: How can
technology solve tourism problems?

**Ask: How can technology
strengthen the
relationships that help
destinations adapt and
thrive?**

From Smart Tourism to Connected Tourism

Smart Tourism	Connected Tourism
For current features	For future features
Technology-centered	Relationship-centered
Data	Dialogue
Optimization	Stewardship
Information	Understanding
Management	Participation





Engagement Mechanism

Participation

Technology Enabler

Digital Engagement Platforms

Supplier/Practice Example

Community Consultation & Co-Designed Experiences

Resilience Outcome

Trust & Legitimacy

Theory to Practice: Participation Engagement

Celebrity Cruises “Keys to the City” Excursions

Technology enables travelers and residents to actively engage with places and people.

Celebrity Cruises “Keys to the City” are included, tech-driven, self-guided excursions designed for their European river cruise itineraries with **curated digital maps, local insights, and behind-the-scenes access** to explore at their own pace.

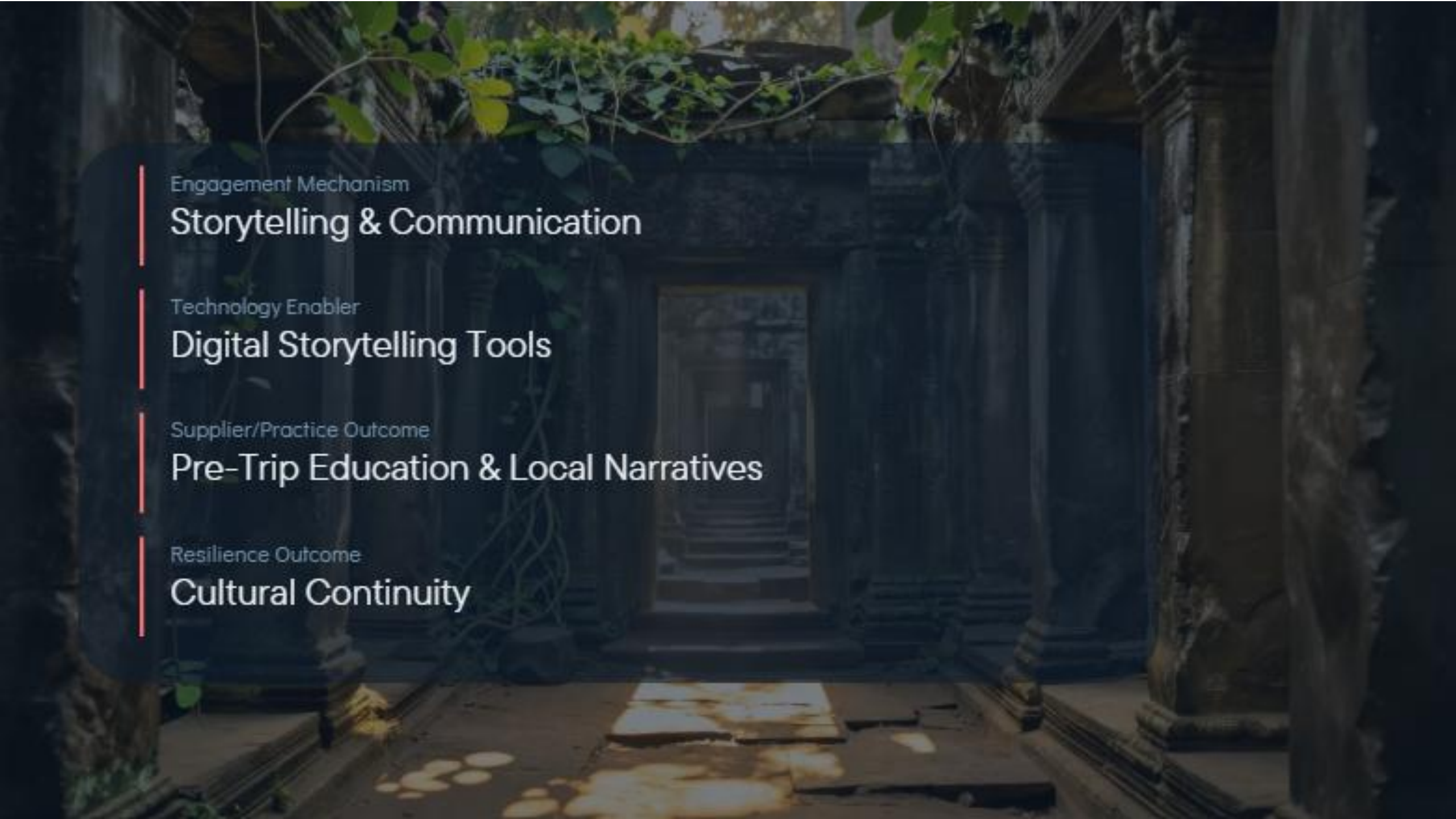
Key Features:

- **Tailored Exploration:** Select routes based on your specific interests — such as art, culinary/food, history, or architecture.
- **Digital Integration:** Content like audio narration and video clips are accessible directly through a digital platform.
- **Stationed Support:** Local hosts are stationed at key points to offer help, answer questions, and provide insider tips.

Theory to Practice: Participation Engagement

HX Expeditions Citizen Science

- Technology bridges the gap between passive observation and active research by turning cruisers into Citizen Scientists, fostering direct connections with environments through:
 - **Mobile App Integration:** Passengers use smartphone apps like **eBird** for bird spotting and **Happywhale** to log marine mammal sightings.
 - **Onboard Science Centers:** High-tech research hubs feature state-of-the-art stereo and compound microscopes, underwater drones, and ocean sampling technology (like CTD sensors)
 - **Expert-Led Edutainment:** Expedition teams and resident scientists use data-rich tablets, interactive displays, and digital workshops to guide guests through their discoveries, bridging knowledge gaps and inspiring ocean conservation.



Engagement Mechanism

Storytelling & Communication

Technology Enabler

Digital Storytelling Tools

Supplier/Practice Outcome

Pre-Trip Education & Local Narratives

Resilience Outcome

Cultural Continuity

Theory to Practice: Storytelling

TTC Brands “MAKE TRAVEL MATTER®”

The intersection of **The Travel Corporation (TTC)**, storytelling, technology, and their signature "**MAKE TRAVEL MATTER®**" initiative forms a unified ecosystem that transforms passive tourists into conscious global citizens.

- **Technology as the Objective Validator** – proprietary digital MTM E-Assessment Tool
- **Storytelling as the Emotional Bridge** – preserving culture, connecting impact
- **“Make Travel Matter”** as the framework for People, Planet, and Wildlife (TreadRight Foundation)

Data does not inspire people to change their behavior – narratives do.

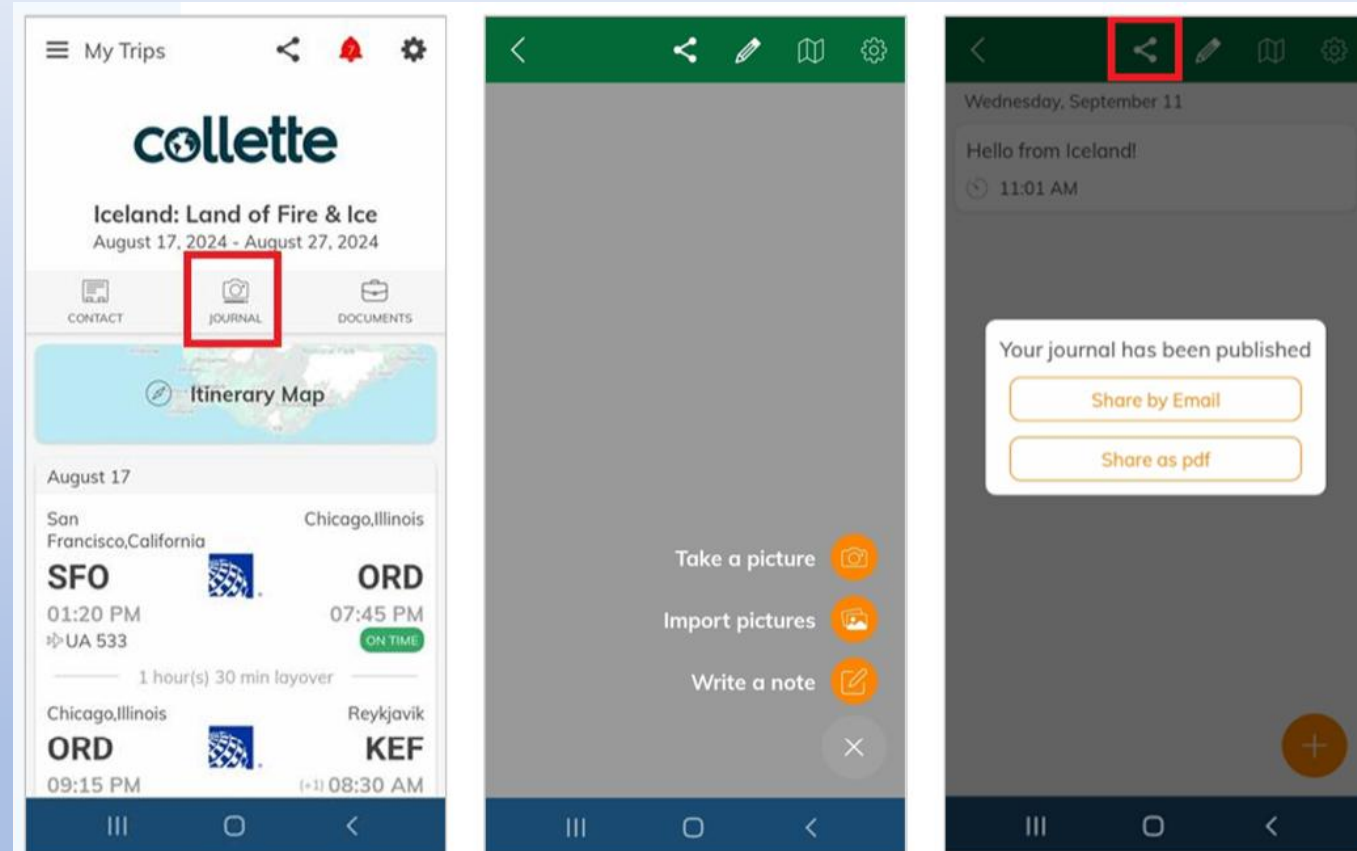
Theory to Practice: Storytelling

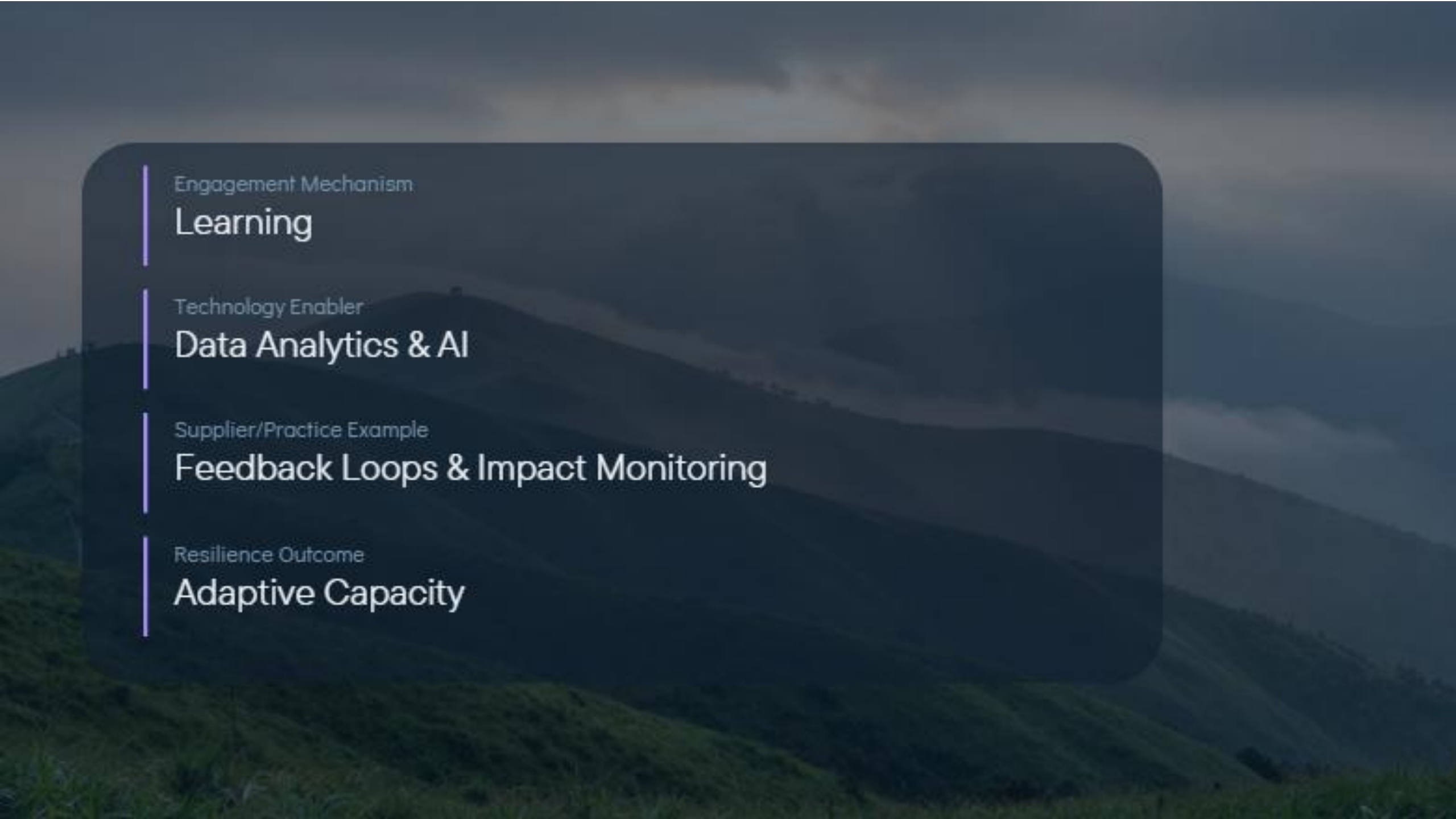
Collette Cares

Collette leverages its Collette Compass app to blend offline cultural immersion with digital storytelling. Built in *Trip Journal* allow guests to record and share their cultural experiences in real time.

How Collette uses Technology to Connect Travelers to Cultures

- Curated destination knowledge
- Interactive Mapping for independent exploration
- Reflective Storytelling with the built in *Trip Journal*
- Encouraged community sharing with hashtag #GoCollette.





Engagement Mechanism

Learning

Technology Enabler

Data Analytics & AI

Supplier/Practice Example

Feedback Loops & Impact Monitoring

Resilience Outcome

Adaptive Capacity

Theory to Practice: Learning

Viking Cruises

Viking Cruises uses technology to deepen cultural storytelling through their dedicated digital platform, **Viking.TV**. This content hub features daily cultural programming, expert lectures, and museum tours that connect travelers to destinations before, during, and after their voyage.

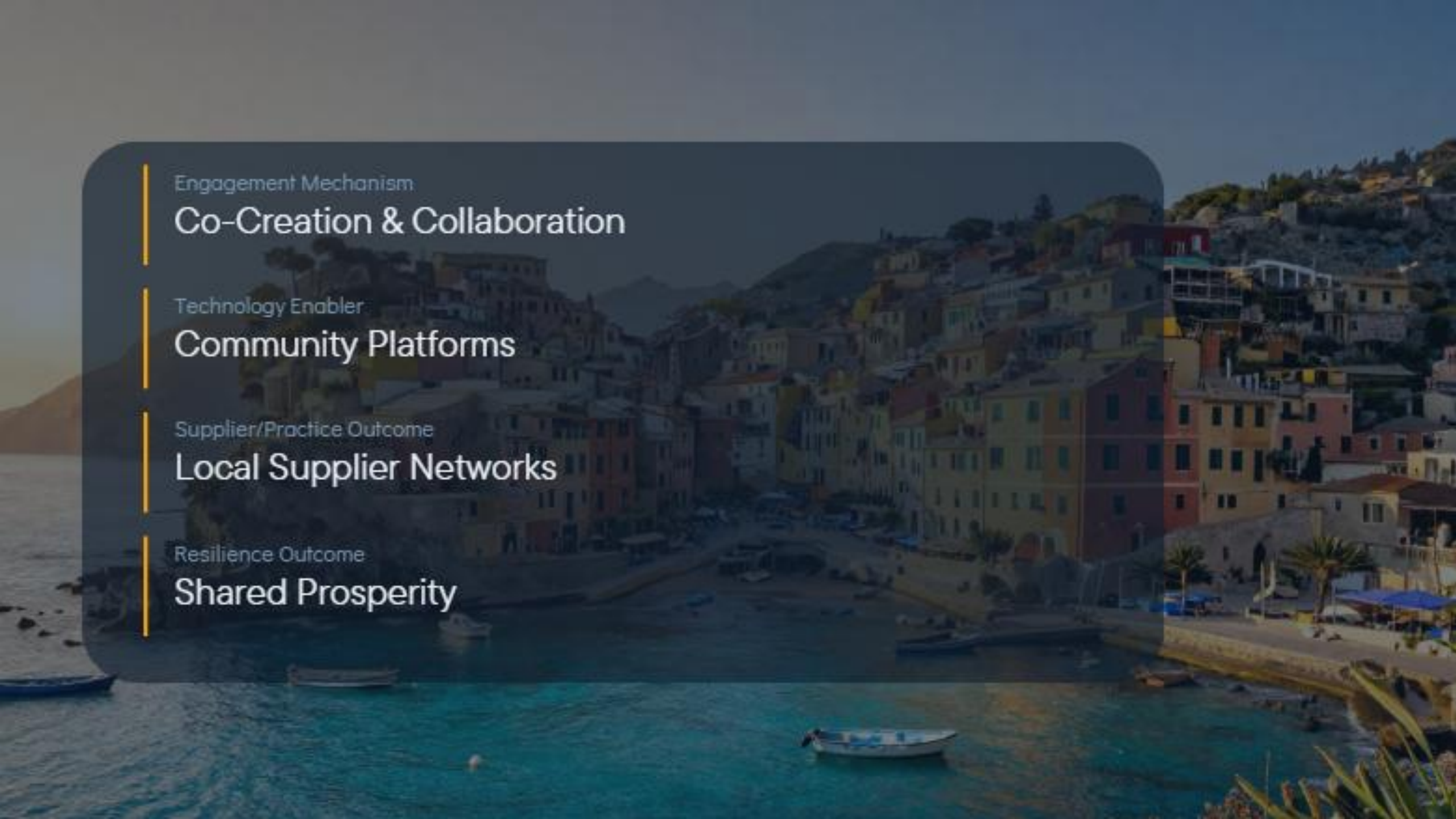
- Video and reading lists sent prior to sailing

Viking Expeditions utilizes custom-built vessels equipped with submarines, rigid-hull inflatable boats (RIBs), and scientific laboratories. These ships take guests to remote locations (such as Antarctica or the Great Lakes) with a strong focus on scientific discovery and environmental education.

Theory to Practice: Learning

National Geographic/Lindblad Expeditions

- Use advanced technology to bridge the gap between travelers and local cultures through **underwater video cameras, camera gear lockers, and interactive expedition hubs**.
 - **Underwater ROVs and Hydrophones:** Guests can connect with the hidden maritime and coastal aspects of local cultures with live feeds through drop-cameras and hydrophones.
 - **Photography and Visual Storytelling:** Certified Photo Instructors and National Geographic Experts join every expedition, equipping travelers with cutting-edge **OM System camera gear** to capture authentic moments in local villages and landscapes. Onboard workshops and one-on-one reviews teach guests how to visually document human stories respectfully and creatively.
 - **Immersive Onboard Theaters ("The Forum"):** State-of-the-art, two-story amphitheaters—such as those on vessels like the *Connect* and *Evolve* — serve as interactive educational hubs. Local cultural interpreters, anthropologists, and ethnomusicologists use large format displays to host multimedia presentations, cultural music performances, and daily briefings.
 - **Citizen Science Gear:** Guests use environmental sensing and tracking tools to assist onboard researchers with oceanic and ecological studies. This active participation ties the traveler's journey to the sustainability and preservation of the remote areas they visit.



Engagement Mechanism

Co-Creation & Collaboration

Technology Enabler

Community Platforms

Supplier/Practice Outcome

Local Supplier Networks

Resilience Outcome

Shared Prosperity

Theory to Practice: Co-Creation/Collaboration

G Adventures

- The **Ripple Score** by G Adventures is an industry-first metric that shows the percentage of money spent on a tour that stays directly within the local destination. Scores range from 1 to 100, with 100 meaning all trip services are locally owned.
 - Portfolio average is 93%
- By prioritizing human-led community tourism, they use digital tools as a bridge rather than a replacement for authentic cultural immersion.

Costa Rica Family Experience

Overview Highlights Accommodation Itinerary Dates & Availability Reviews FAC

Is this tour for me?

TRAVEL STYLE

Family ⓘ

Trips built for adventurers of all ages with age-appropriate activities and hotels that know families.

SERVICE LEVEL

Upgraded ⓘ

PHYSICAL GRADING

2 - Light ●●●●● ⓘ

TRIP TYPE

Small Group ⓘ

AGE REQUIREMENT

6+

Under age 18 must be with an adult



Trees for Days



Ripple Score

Theory to Practice: Co-Creation/Collaboration

Intrepid Travel

- Intrepid Travel leverages technology not just for logistics, but to facilitate community-based tourism and authentic cultural connections. By combining digital platforms with local leadership, the company empowers travelers to engage directly with local cultures and understand their socioeconomic impact.
 - **Proprietary Travel App**
 - **Community-led Experiences** such as family homestays and Indigenous-led experiences.
 - **Measuring Cultural Impact with "The Intrepid Effect"** for substantiated storytelling and mapping experiences to real, measurable outcomes for host communities.
 - **New Global Purpose Platform** uses storytelling to **bring impact to life, shifting the focus from statistics and claims to real-world examples.**

THE CONNECTED TOURISM FRAMEWORK

From Smart Tourism to Connected Tourism



— Strong, intentional relationships
----- Information & feedback flows

When technology strengthens relationships and empowers communities, destinations become more resilient, inclusive, and adaptable.

Why Connected Tourism Leads to Resilience

When communities participate, tell their stories, learn together, and collaborate, destinations become more adaptive, more trusted, and ultimately more resilient.



Closing Thought

Technology adds the most value when it helps people connect more deeply with places, communities, and one another.

Thank you!

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