

Digital Conservation Outreach: A Cross-Platform Descriptive Analytics Case Study

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Introduction/Need for Research

Agricultural conservation programs communicate complex information about eligibility, incentives, practices, and producer participation to varied audiences. Social media can extend visibility beyond existing followers, while email provides an owned channel for direct contact. Agricultural communication research demonstrates that digital content and platform practices can influence engagement (Kesler et al., 2021; King & Settle, 2020). Yet, native metrics are not interchangeable, and organizations need evidence about the distinct communication role of each channel. This study aligns with the American Association for Agricultural Education (AAAE) Research Values and calls to strengthen science communication research in agricultural contexts (AAAE, 2023; Parrella et al., 2023).

The purpose of this study was to conduct a descriptive analytics audit of Facebook, Instagram, and email outreach used by a statewide conservation initiative. Three questions guided the study: (a) What patterns of reach, interaction, and audience growth were evident within each channel? (b) Which content formats accounted for the largest shares of reported views and interactions on Facebook and Instagram? and (c) What distinct communication functions were suggested by the available social media and email analytics?

Conceptual Framework

Lovejoy and Saxton's (2012) information-community-action framework served as an interpretive lens rather than a measurement model. Views and reach represented information exposure; reactions, comments, and shares represented community interaction; and profile visits, follows, link clicks, and subscriptions represented potential action. The framework provided a platform-neutral structure for interpreting different dashboard signals by communication function without treating platform metrics as equivalent. These signals indicated observable communication activity but did not demonstrate causal attitude or behavior change.

Method

We conducted a descriptive case study and cross-platform analytics audit of a statewide conservation initiative. Case study approaches are appropriate for examining a bounded contemporary phenomenon in context while descriptive analyses summarize observed patterns without making causal claims (Loeb et al., 2017; Yin, 2018). Aggregate, non-identifiable data were retrieved from native dashboards on June 22, 2026. Facebook and Mailchimp data covered Jan. 1 to May 31, 2026. Facebook variables included views, interactions, follower status, page visits, net follows, and content-type distributions. Mailchimp variables included contacts, unsubscribes, growth, subscriber sources, and open and click rates for four campaigns distributed during the study period. Instagram data reflected a 90-day window available June 22, including views, reach, interactions, profile activity, follower status, and post-versus-reel distributions.

Frequencies and percentages were summarized within each channel. Platform-specific reporting periods, metric definitions, and dashboard structures precluded inferential statistics and direct cross-platform performance comparisons (Stieglitz et al., 2018). Facebook totals combined organic and boosted distribution because the dashboard did not separate them. Mailchimp contact-change reporting was unavailable for May 7-13, but additions and removals remained recorded.

Results

Channel	Key indicators	Strongest descriptive patterns
Facebook	112,512 views; 236 interactions; 164 reactions; 13 comments; 59 shares	Non-followers generated 97.4% of views and 67.4% of interactions. Links accounted for 91.1% of views; photos accounted for 49.6% of interactions.
Instagram	1,285 views; 537 accounts reached; 62 interactions; 30 engaged accounts; 55 profile visits	Non-followers generated 57.6% of views. Posts accounted for 56.1% of views and 75.8% of interactions; reels accounted for 44.0% and 24.2%, respectively.
Mailchimp	672 total contacts; 655 subscribed; 17 unsubscribed; net growth of 61	The embedded website form accounted for 392 contacts and 63 new contacts. Open rates ranged from 22.7%-31.5%; click rates ranged from 2.4%-3.4%.

Note. Reporting windows and metric definitions differed by platform; results therefore describe within-channel patterns rather than comparative platform performance.

Conclusions

The audit identified complementary roles within a coordinated outreach system. Facebook extended information exposure beyond existing followers, through links, while photos were more strongly associated with observable interaction. Instagram supported visual outreach, with posts leading interaction and reels contributing substantially to visibility. Mailchimp maintained a direct subscriber relationship and supported audience growth through an embedded sign-up form. Our findings address the need identified in the introduction answering why organizations should interpret each channel according communication function rather than seeking a universal performance metric. The results do not establish causality or platform superiority.

Implications/Recommendations/Impact on Profession

Agricultural educators, Extension professionals, and communication teams should tailor strategy by channel rather than distribute identical content everywhere. Facebook links can direct audiences to program information, while photo content can support interaction. Instagram can pair static or carousel education with reels for field-based storytelling. Mailchimp should remain a central owned channel, supported by the embedded sign-up form and systematic testing of subject lines, topics, and link placement. This low-cost audit offers a replicable approach for small agricultural organizations seeking evidence-based digital outreach decisions. Future evaluation should align reporting periods, separate paid and organic distribution, collect post-level data, and code messages by topic, format, audience, and information-community-action function. Standardized tracking links and campaign identifiers would permit examination of movement among social media, websites, email subscriptions, and program participation. These steps would strengthen interpretation of how agricultural organizations move audiences from information exposure to interaction and potential action (Lovejoy & Saxton, 2012; Stieglitz et al., 2018).

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