TECH1002-17 Social Media & Technology

Workshop Twenty-One – Objectives & Evaluation

This evaluation framework is taken from (Lanham, Jordan, & Jr, 2016, p. 58), 'The Need for Sustainable Development.' In what way will you be dealing with the issues listed in this table, and how do they relate to ideas of social media project development and practical issues of implementation and action.

	Understanding Core Ideas and Cross-Cutting Concepts	**Engage in Professional Practices**	**Develop Dispositions**
Diverse Learning Agents	Variability is inevitable; diversity is a source of resilience and adaptive potential.	Create diverse teams; manage the social and task challenges associated with working in diverse teams.	Cultivate appreciation for diversity.
Nonlinear Relationships	Actions have unexpected consequences; expect surprise; systems have unpredictable trajectories.	Pay mindful attention, learn to learn instead of learn to know; develop relationships to deal with surprise.	Base your identity on your ability to deal with emergent futures rather than your expertise in solving yesterday's problems.
Self-Organisation	Order and structure are created through local interaction but may not be apparent at a local level.	Develop relationships (one's own and others'), treat conversation as collective improvisation with emergent insights.	Ground your identity in relationships and help others to do the same, appreciate identities in context.
Emergence	Systems' dynamics change over time and are history dependent.	Re-arrange spatial and temporal relationships to allow the possibility of new elements and new systems.	Value collective identities and help others do the same; treat trust, freedom, and relationships as emergent.
Co-Evolution	Systems of systems make mutual adjustments.	Adapt to the world as the world is adapting to you; scan question, assess; think across levels.	Appreciate interdependence and surprises; they are the essence of CAS in which we live.

Social Media Project Sustainable Development Evaluation (Definitions are listed below)

Issue	Ideas	Practices	Work-Around
Emergent Interactions: *What assumptions about social media communication and development are being questioned in this practice and arrangement?*			
Expected Outcomes: *How will you be responding to evolving relationships and circumstances?*			
Unexpected Outcomes: *How will you pay attention to new ideas, and how will you share them?*			
Dispositions: *What will you do to foster and support the relationships within which a sense of participation and identity is shaped?*			
Uncertainty: *How will you work in an uncertain environment?*			
Potentialities: *How will you cope with the things that you can't control, and the many possible ways they may turn out?*			

Non-Linear Interdependencies: *What is the limit of familiar approaches and strategies to social media project development?*			
Prediction & Control: *As options become more uncertain, how will you manage them?*			
Embracing Uncertainty: *What is the change that you hope to bring about?*			

Emergent Interactions

"Researchers have identified some challenges in trying to understand complexity systems. For instance, individuals tend to interpret group-level behaviour as being dictated by centralised control or directed by a group leader. It is difficult to understand that group-level behaviour can emerge from interactions among agents who are continually modifying their behaviours in order to learn, adapt, and evolve in their environment" (Lanham et al., 2016, p. 58).

"Urban designers need to develop the intuition that variability be an important part of the dynamics of a complex system, a sign of system change and a source of order-creation, rather than seeing it just as a problem to be solved or an error to be ignored. They also need to understand enough about the self-organising dynamics of complex systems to enable them to resist the tendency to impose centralised control" (Lanham et al., 2016, p. 58).

"Planning for sustainable use in any particular community requires taking into account social, economic, and political ecosystems as well as natural ecosystems at multiple levels and timescales. It requires flexibility in (re-)defining the boundaries, networks, and hierarchies of a given system for different purposes and from different perspectives" (Lanham et al., 2016, p. 59).

"Developing the practice of questioning assumptions is critically important in situations where mutual reciprocity among a large set of factors can lead to unpredictable outcomes. Questioning assumptions can be particularly challenging when an urban designer is hoping to see results from his or her planned actions in a system. It is tempting to look for confirming evidence that one's simple solution is a magic bullet" (Lanham et al., 2016, p. 59).

Unexpected Outcomes

"Urban designers who adopt a complex systems perspective on sustainability will be better able to guard against such tendencies, instead, engaging in continual scanning and assessment, looking for unexpected outcomes and unintended consequences of actions taken to facilitate sustainability" (Lanham et al., 2016, p. 59).

"Relationships are critically important to managing uncertainty. Urban designers need to learn to participate effectively in dynamic systems of relationships with diverse partners so that they can adapt to evolving circumstances. Engage in conversation, paying attention to how new ideas emerge from the interactional feedback as discursive partners exchange ideas" (Lanham et al., 2016, p. 59).

Dispositions

"Dispositions are not stable personality traits; rather, they are shaped by the myriad of experiences and evolving beliefs an individual brings to their current situations. Urban designers committed to sustainability need to develop dispositions that are useful for working in CAS" (Lanham et al., 2016, p. 59)

"Urban designers need to develop dispositions that favour careful attention to and nurturing of relationships, recognising that trust, freedom, and responsibility are emergent properties that continuously evolve out of the self-organising interactions of relationally interdependent agents" (Lanham et al., 2016, p. 59).

"Urban designers need to recognise that identity is a relational construct and to value identities that emerge in systems of relationships. From a complexity standpoint, all members of a team are self-regulating agents who simultaneously constitute an emergent social entity that co-regulates engagement in collective activity. An important aspect of urban designers' identities needs to be a focus on the relationships through which one's identity is defined, enacted, and continually shaped" (Lanham et al., 2016, p. 59).

Uncertainty

"Complexity theory leads to the understanding that the world is an endlessly creative place. As such, the world is an endlessly uncertain place" (Lanham et al., 2016, p. 60).

"As John Dewey noted, individuals are often tempted by the love of security to ignore doubt or to escape uncertainty prematurely, rather than accept that 'attainment of the relatively secure and settled takes place… only with respect to specific problematic situations; [a] quest for certainty that is universal, applying to everything, is a compensatory perversion.'" (Lanham et al., 2016, p. 60).

Potentialities

"Because complex systems are inherently unpredictable, treating the future as potential, possible, taking 'delight in the problematic' and enjoying the doubtful is preferable to relying on feelings of assurance. Learning to avoid over-reliance on past experience, pay attention as the world unfolds, and acknowledge uncertainty to one's collaborators can help one appropriate a welcoming stance toward a world that is unknowable in many of its aspects" (Lanham et al., 2016, p. 60).

"Fitness landscapes also serve as an effective integrator of key issues at the intersection of sustainable development and complexity science. These key issues: the problem of balance, the importance of relationships, and the recognition of our inability to control system outcomes are found at the intersection of complexity science and sustainable development" (Lanham et al., 2016, p. 60).

Non-Linear Interdependencies

"The role of nonlinear interdependencies, self-organisation, emergent properties, and co-evolution are important characteristics of CAS in improving our understanding of and generating new insights into the challenges of sustainable developments" (Lanham et al., 2016, p. 60).

"In summary, using complexity science perspectives, systems seeking sustainable development should strive to (1) operate at points on the fitness landscape that are far from equilibrium, (2) foster the development and maintenance of relationships among agents with diverse interests and perspectives, and (3) develop ways for dealing with fundamental uncertainty without simply relying on traditional strategies based on prediction and control" (Lanham et al., 2016, p. 60).

Prediction & Control

"How should a system be designed so that sustainability is more likely to emerge" (Lanham et al., 2016, p. 61).

"Complexity science and CAS thinking allow us to recognise our inherent inability to predict and control systems outcomes because of nonlinear relationships, self-organisation, emergent properties, and co-evolution. As one accepts the presence of fundamental uncertainty in CAS, attentions is freed from attempts at uncertainty avoidance and modernist attempts at rational planning" (Lanham et al., 2016, p. 61) .

Embracing Uncertainty

"Attention can subsequently be redirected toward recognising and embracing uncertainty, utilising more adaptive strategies such as insurgent planning and communicative planning" (Lanham et al., 2016, p. 61).

"Sustainable development is something which we must continuously strive through multiple, humble, iterative projects from which we learn. As we move towards sustainability, we change the world" (Lanham et al., 2016, p. 61).

References

Lanham, H. J., Jordan, M., & Jr, R. R. M. (2016). Sustainable Development - Complexity, Balance, and a Critique of Rational Planning. In S. A. Moore (Ed.), *Pragmatic sustainability - Dispositions for Critical Adaptation*. London: Routledge.