

# Digital Environmental Humanities: Scholarship and Activism in India

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**Dr. M. Angkayarkan Vinayakaselvi**

*Associate Professor, Department of English  
Bharathidasan University, Tiruchirappalli, India*

**R. Abinaya**

*Research Scholar, Department of English  
Bharathidasan University, Tiruchirappalli, India*

## Abstract

*The advent of digital age impacted a massive transformation in the academia and dissemination of information and communication and also how human cognition takes place and such changes will only accelerate. Digital Humanities is an interdisciplinary field of inquiry that uses the methodologies of digital technological innovations to study humanities. Digital environmental humanities is a branch of digital humanities that deals with the intersections of digital arena and environmental concerns This article intends study the position of digital environmental humanities in Indian environmentalism. It also attempts to place on the Indian context of the field and trace the scholarship and activism of digital environmental humanities in India.*

**Keywords:** Digital Humanities, Digital Environmental Humanities, Digital Scholarship, Environmental Activism, Ecocriticism, Indian Environmentalism

Ecocriticism is the study of the relationship between literature and the physical environment (Glotfelty xviii), nevertheless the meaning of the term like the movement has evolved overtime. The inclusion of cultural aspects and science for dealing with environmental problems expanded the scope of the field of study. The definition of ecocriticism grew from studying the environmental texts to “the scrutiny of ecological implications” (Slovic 160), raising moral questions and inform about sustainable practices (Gomides 16). The division of waves in ecocriticism elaborates the growth of the field in the direction of multidisciplinary inclusion. Though there is no clear distinction of the content or time of the waves, the first and second wave can be approximately placed along 1980s and mid 1990s as the starting line, the third wave can be positioned around 2000s and fourth wave at the end of the same decade. First wave focuses on the nonfictions on nature writing, celebrating the nature inclining towards the wilderness including ecofeminism and the major areas were American and British. The second wave also called as the revisionist wave included multiple genres, multicultural aspects, environmental justice, urban and suburban concepts and it focused Pon local literatures around the world. This wave is diverse and it

have “connections with political environmentalism and ecological science” (Buell 17; Garrard 1) are furthermore complex. Adamson and Slovic inform about the third wave “which recognizes ethnic and national particularities and yet transcends ethnic and national boundaries; this third wave explores all facets of human experience from an environmental viewpoint (6-7). The third wave include “global concepts of place as well as neo-bioregional studies; multiple gendered approaches, including “material feminism”; animality; critiques from within; polymorphous activism; and comparative studies (multinational and multi-ethnic).” The fourth wave ecocriticism includes discourses of materiality, commitment in creating awareness and engaging socially and politically and multicultural voices across the globe. The focus has shifted from the academic scholarship towards an applied approach of ecocriticism (Slovic, Editor’s Note 619). Nixon’s concepts of slow violence and writer-activism; Stacy Alaimo’s notion of trans-corporeality plays a major role in this wave.

Information and communication technology have enriched the humanities and changed the research methods and data processing in a positive way. It has accommodated increased quantity and medium (multimedia) of data sets for both quantitative and qualitative research. The presentation and interpretation of the inferences and finding could be provided multimedia content through digitising the content. In addition to that the online sources enable large scale consumption of the information like creating environmental awareness. As it facilitates a synchronous form of communication, it provides an active space for communication like never before. The naming of the current epoch as Anthropocene dividing from Holocene falls within the same millennium of the growth of digital technology. The rise of science and technology and the exploitation of natural resources to supplement this development has given way Anthropocene. Nevertheless, we cannot separate the socio-cultural variables that led to the deterioration of the natural environment. The attitudinal factors towards the environment caused by individual socio-cultural practices and consumption based economic structure have facilitated the growth of science and technology in the direction of unsustainable development.

Emphasising the information processing of the new millennium and the technological advances the dissemination of stories and narratives have shifted to the digital platforms like blogs, social media, films, documentaries, and web comics. Within this premise, Slovic comments on the arrival of the fifth wave of ecocriticism (Editor’s note, 2019, 514) for a more action-oriented approach and towards a wider research impact and scope. The need for the fifth wave lines with the need of the time. Literature in all its form have been playing a substantial role in creating narratives starting “on nature writing, wilderness rhetoric, and local place-based identities to widening concerns with environmental justice, urban ecologies, other-than-human bodies, and the environmental consequences of colonialism and globalization” (Carruth 365). Ecocriticism as a field became an umbrella term that accommodated various academic approaches and the term environmental humanities facilitated the inclusion of the multidisciplinary disciplines. The research of cultural paradigms and the forms of representation have extended to include multimodal forms in digital platforms. This naturally leads towards the arrival of digital environmental humanities.

Environmental Humanities is a more integrated approach to the perceived crisis in the global environment that includes traditional forms of criticism such as ecocriticism, ecosophy, geography, histories of environment and environmental ethics. It “engages with fundamental questions of meaning, value, responsibility and purpose in a time of rapid, and escalating, change” (Rose et al. 1). Compared to ecocriticism, it is more interdisciplinary and multidisciplinary in nature with involved and applied approaches working across national and cultural boundaries which can be paralleled with the fourth and fifth wave of ecocriticism.

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The advent of digital age impacted a massive transformation in the academia and dissemination of information and communication and also how “human cognition takes place and such changes will only accelerate” (Travis and Holm 190) in the coming future.

Given this proposition, this article intends study the position of digital environmental humanities in Indian environmentalism through the enquiry of research publications, government and non-government initiatives, webcomics, social media platforms on environment. The significance of this study is the focus it attempts to place on the Indian context of the field and trace the scholarship and activism of digital environmental humanities in India.

In India, the point of view of ecocriticism and environment has mainly focused on environmental justice considering the importance of understanding the social, cultural and economic equity of the people. The major tenants lie on the distinction between the markers of questioning the indigenous relations with nature as backwards while celebrating nature (Rahman 318) and working on the modern demands of sustainability.

Indian environmental movements have been a pioneer in the global arena of environmentalism. Environmental movements in India against the natural resource utilisation which tremendously increased with the process of development. The exploitation of natural resources in India for railway lines, ship building and for other commercial and domestic activities began with the arrival of the British. The colonisers in contrast to the indigenous sustainable resource utilisation choose to use the resources as raw materials for their economic benefits. This exploitation affected the local populations whose life depended on the resources around their eco system, resulting in economic inequality. As a result, the protests against exploitation began leading to the expanded version of environmental movements today. These protests including the Indigo movement, Deccan movements were considered as a part of independence movement than being considered as an environmental movement. (Swain 820). The forest policies other constitutional acts towards natural resources underwent less changes from pre independence to the post-independence period. Industrialisation and energy intensive development went on to see a raise after colonisation in contrast to the Gandhian philosophy.

Swain states that environment movements have contributed to the empowerment of the “silent groups” (819) with the active involvement of people of varied social strata. The protests have immense influence on the government policies and their implementation. Movements against dams aimed to redress the issues of huge displacements of indigenous populations. These people had to lose their livelihood without any or less rehabilitation benefits for the profit of the privileged few. The demonstrations and protests were mostly from the marginalised people in grass-root level. Swain continues that the idea of benefitting the masses while destroying the indigenous rights towards natural resources should be changed by the government considering sustainable forms of development including all people. Indian environmental activism and movements took stand for environmental justice, equal distribution of the natural resources, and environmental pollution caused by development models. Though movements for non-human conservation have been prevalent, the popular concerns were intersectional environmental issues among humans. These concerns were put forth in many scholarships and environmental movements.

Rob Nixon represents writer-activists as a potential witness of the environmental issues and as the authority of the usual witnesses is questioned discounting them both socially and culturally. The writer-activist and their writings serve as testimony to the world about their individual community or country as they represent the case of the poor people which in the neoliberal world is short lived. Hence, the writer-activist functions as the collective consciousness capable of negotiating. They can also humanize the threats through their imaginative writing making it accessible and by participating in the activism they become “iconic figure heads” and “autobiographers of collective

movements” (Nixon 23). They can provide “sights unseen” (Nixon 15) of the catastrophe as a participant giving materiality for their communities to act. The writer-activists vary from organizers of environmental movements like Medha Patkar, Chandi Prasad Bhatt, and Sunderlal Bahuguna to journalists, academicians, writers like Arundhati Roy, Madav Gadgil, Ramachandra Guha, Amitav Ghosh, and Nirmal Selvamony. They amplify the already established protests to the world. Their discourses, hence, create an alliance among environmental justice, environmental history, and rights of the marginalized people.

The three phases of Indian ecocriticism identified by Alex provides an interesting insight into the environmental scholarship. He situates Nirmal Selvamony’s introduction of the course Tamil poetics (later renamed as Ecoliterature) as the starting point of ecocriticism in India in the 1980. This initiative was continued by conferences on the concerns of environment and the opening of the Indian chapter of ASLE: Association of the Study of Literature and Environment. The next phase is the team work of OSLE: Organisation for Studies in Literature and Environment, India and ASLE India – they organised various workshop, conferences, and publishing outlets. These steps initiated the advent of relevant courses and research projects. The third phase is “digital ecoactivism” (6) which involved digital media to address the environmental issues. This interaction of Indian environmentalism falls in line with digital environmental humanities.

Digital Humanities is an interdisciplinary field of inquiry that uses the “modern computer and network technologies to explore and expand on the traditional fields of humanities study and education” (311). It also enhances the methodological, theoretical, pedagogical and practical implications both in and outside of academia. Borgman calls for action to the humanities scholars to emulate the digital scholarship and learn from the cyberinfrastructure and escience which includes the technical, social and political infrastructure of the digital sources. This, he proposes, can be replaced with eResearch as a collective term to include the social sciences and humanities (4).

Digital environmental humanities can be considered as a branch of digital humanities that deals with the intersections of digital arena and environmental concerns. The constituents of DEH include data visualization and mapping, digital archives of environmental data, environmental literature and digital narratives, citizen science and crowdsourcing, digital ethics and environmental justices, environmental humanities databases, network analysis of environmental relationships, and digital art and environmental activism. These constituents can be listed either based on the digital platforms that disseminate data in relation to environmental concerns or the methods of presenting those data. The four major branches for the convergence of the digital and environmental humanities, they are – critical perspectives on technologically mediated experiences of nature; environmental impacts of digital technologies for providing a theoretical space of interaction; digital technologies and activating publics, and digital scholarly tools and environment content towards active measures (Posthumus & Sinclair).

Nowvieskie lists the significant roles of Digital humanities – digital recovery of texts, objects and traces of human experience, processing and computing the bigdata and hyperobjects to handle the issues of global scale like global warming towards remediating it, mapping, coding and data collection (i11&i12) for recovery from environmental issues which should be inclusive of indigenous practices and knowledges. Ranging from Plato’s Republic, More’s Utopia, Orwell’s 1984, Huxley’s Brave new world to Octavia Butler’s Parable of Sower, literature has been playing a vital role in reimagining futures and reconstructing the societal structures towards the betterment of the world in multiple facets. The reimagining of positive futures with the bigdata, mapping and visualisation can create a tremendous impact. Literature with the other arts and humanities discipline along the with the digital computing can demarcate individual aspects of the possible world and guide the contemporary times. These interactions can help and regulate science and technology towards building a sustainable future.

Digital Humanities is rapidly growing in India which is the largest consumer of information and technology. There has been various universities and research institutions interested in the field as they open up courses, conferences, and collaborations under digital scholarships. The increased practices of digital in humanities in India has been especially focused in English departments (Kar and Ray 276). This can be understood through the number courses and programmes organised under the same department and moreover, the flagship organisation of digital humanities – DHARTI (digital humanities Alliance for Research and Teaching Innovations) has many members belonging to the English department. This can be compared to the initiatives of environmental humanities in India where the pioneering scholars, academician belong to the English department. This is notable contribution as we have been tracing the development of environmental humanities as an extension of ecocriticism which is native to literature and criticism.

The Indian scene of digital environmental humanities have a major focus on the following constituents of the field discussed in this article can be broadly divided into academic and research scholarship and digital activism. The former includes – archiving of books, digital platforms for academia, research, pedagogy and common interest, and research initiatives and projects focusing on digital environmental humanities. The latter includes the digital activism done through environmental based organisations, digital platforms – blogs, web comics, social media and podcasts.

### **Digital Environmental Scholarships**

The written texts were digitised and made available for everyone online through initiative like Project Gutenberg, Internet Archive, Librivox, Google books and Open library. Similar Indian digital archives include National Digital Library of India, Digital Empowerment Foundation, and The National Library of India. Digital platforms for academic and research resources include JSTOR, Scopus, Web of Science, PubMed, ERIC, IEEE Xplore, Gale, Paperity, Research Gate, Science Direct, Biomed Central, Academia, ProQuest, EBSCOhost, and Project Muse. The Indian based digital platforms for the academic and research resources include Swayam Prabha: Free DTH channel for education, Shodhganga: a reservoir of Indian theses, Consortium for Educational Communication (CEC): An Inter University Centre of University Grants Commission on Electronic Media, ePathshala: a gateway to all post graduate courses, and Swayam: Free online education. The common digital platforms provide books and other academic resources include the data of environment and related information.

The academic and research institutions are initiating courses related to digital humanities, for instance, Jadavpur University, Savitribai Phule Pune University, IITs, and Ashoka University (Nehra and Bansode 313). With the current relevance and fast-growing trends and concerns on environment. It is not far from seeing the courses on digital environmental humanities, it includes the research initiatives which is catching up to the foreign scene of the field of study. Nevertheless, the growing awareness and non-academic initiatives show wide ranging scope for the field in India.

### **The Digital Environmental Initiatives and Activism**

Digital platforms and organisations that promote environmental awareness, environmental literacy and communication and digital environmental activism India based are as follows:

Organisations – Centre for Science and Environment (CSE), Ashoka Trust for Research in Ecology and the Environment (ATREE), The Bombay Natural History Society (BNHS), Green Peace India, The Energy and Resources Institute (TERI), Kalpavriksh, Swachha: Education, Environment, Enterprise.

News and publishing outlets – Down to Earth, India Climate Dialogue currently merged with The Third Pole, Let Me Breathe, Earth Day Network India Trust, Terra Green TERI’s digital magazine, India Environmental Portal (initiated and managed by CSE), Mongabay: News & Inspiration from Nature’s Frontline in India, Nature in Focus (a photo led space for environmental representation and curation), Sanctuary Asia magazine (under The Sanctuary Nature Foundation), The Wire Science: Environment Section. In addition to that various social media pages, blogs, YouTube channels, documentaries, webcomics and podcasts relay environmental oriented representations lining with the aims of environmental humanities.

Digital environmental humanities as an intervention of digital technologies and environmental humanities have been traced as a gradual and natural development of ecocriticism. It is a significant field of study in relation to the Anthropocene epoch as they are linked by the relevance and need of the times. The digital scholarship has been steadily growing in STEM (Science, Technology, Engineering, and Mathematics) disciplines and there is a need to integrate and increase digital use in humanities and social sciences. In India, the digital intervention has become popular along with the environmental based awareness and campaigns. The academic and research institutions have been responding actively to the response of digital practices in the field of environmental humanities through scholarships and activism. This paper is an attempt to bring forth the significance and scope of the field towards better research scholarship and involvement in digital environmental humanities.

### **Declaration**

I hereby declare that this research paper is our original contribution and has not been presented or published anywhere else.

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