Interactive Digital Narrative Syllabi
from Around the World: A Preliminary Analysis

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Abstract. This paper reports on a diverse corpus of 42 syllabi focused on teaching Interactive Digital Narratives (IDN) or that teach IDN applications in different fields such as education, cultural heritage, and journalism. The collected syllabi represent nearly every continent and four languages, with English as the common language. The syllabi are divided into four sections: survey, humanities, design and technology, and social sciences, according to their focus. This study investigates IDN instruction's objectives, course structure, course materials, and assignments. We use comparative analysis to discover similarities and unique strengths in teaching approaches that reflect the diverse cultural and institutional contexts influencing IDN pedagogy. This early overview offers insight into the pedagogical tactics implemented in IDN studies and serves to concretize the field's approach to training practitioners and academics.

Keywords: interactive digital narrative · media literacy · curriculum and instruction

1 Introduction

Understanding how instructors from across the globe teach Interactive Digital Narratives (IDN) in higher education is crucial for consolidating the field [1]. IDN offers a powerful medium for exploring and understanding complex phenomena [2], which has resulted in its more frequent use in several levels of education [3, 4], in different areas of knowledge [5–7]. Yet, the diverse approaches could be more systematic. There is a need to share innovative resources and strategies among teachers of the world to develop pluriversal syllabi [8]. Recognizing this potential, the Association for Research in Interactive Digital Narratives (ARDIN) launched a study to map the global pedagogical landscape of IDN education [4]. Forty-two syllabi on teaching IDN from across the globe were collected to identify similarities and unique strengths in pedagogy, curriculum, and instruction. The study presents an initial analysis based on this collection, focusing on course objectives, instructional approach, structure, and assignments. In this paper, the authors discuss discipline-specific pedagogical approaches and methodologies for IDN education.

1.1   The Importance of Collecting Syllabi

The collection of IDN syllabi is a step toward bringing contemporary educators together to share their pedagogy to "help standardize the discipline's language, history, and canon of experiences" [2]. Disciplines and fields often engage in this practice. Early efforts such as those for social sciences [9], family life education [10], and agriculture and society [11] are perennial. There are syllabi collections on teaching technology ethics [12], labor politics [13], MBA programs [14], foreign language instruction [15], diversity and intersectionality in public health [16], technical communication [17], and diversity and inclusion in philosophy [18]. Platforms like Open Syllabus have collected 21 million syllabi written in English from 140 countries [19]. Similar to previous syllabi collections, the tool enables instructors to identify shared materials across courses and equivalencies. Teaching the Game, volumes 1 and 2, are comprehensive collections of game studies syllabi worldwide [20]. The volumes, however, do not analyze or synthesize the syllabi. They are, in many ways, repositories like Open Syllabus.

These efforts share the same goals as the IDN syllabi project: to create open repositories of information that teachers can use to inform their curriculum and instruction. For many, the goal of the archives is to help educators affirm that their instruction and materials align with common practices in their field. However, sometimes these collections have been marshaled to respond to societal challenges, such as those covering diversity and inclusion, labor politics, tech ethics, and public health [12, 13, 18]; to strengthen the field by centralizing what occurs across different contexts and modalities [11]; identify what needs to be taught to encourage educators to use new materials and practices to move a field forward [16–18]; clarify pedagogical goals for a complex or non-traditional discipline that has yet to center around a firm pedagogy [10].

Considering these diverse efforts to aggregate and analyze academic syllabi, the research project on IDN syllabi is both a continuation and an extension of these previous practices. However, where the IDN project diverges is in its analytical approach—the authors compile these syllabi and synthesize their contents to highlight emerging trends, common themes, and pedagogical gaps in the teaching of IDN. Instructor reflections are included in the collection to contextualize these aspects. The context and insights provided in the reflections situate "models of practice that are appropriate for the host culture" [9] and inform how other instructors might find success. This approach is crucial for advancing the discipline, as it provides a contextual and culturally responsive foundation for educators to adapt their teaching strategies in response to the evolving demands of IDN studies.

1.2   Previous Explorations of IDN Pedagogical Approaches

IDN's diverse pedagogical approaches span many disciplines, and a lack of resources has been identified as a research and implementation gap requiring attention [2, 21–24]. Dubbelman, Roth, and Koenitz [22] remind us of the origins of IDN design pedagogy in the works of Janet Murray [25], Martin Rieser's keynote in the 1990s, and Spierling and Szilas' contributions to the IRIS project [26, 27]. Some pedagogical approaches use IDN's opportunities to explore complex ideas by integrating the form's design principles into story-based problem-solving applications or serious game projects [28, 29].

Researchers have sought to bolster the efficacy of such approaches, going as far as creating a novel markup system to connect pedagogical goals to narratives within games [30]. Some works have sought to elevate a particular aspect of the System-Process-Product [31] analytical model to support curriculum and instruction [32]. Other papers address the need for comprehensive but easy-to-use authoring and support tools for students to help them develop their IDNs [33]. These tools can aid students in plot management, character, object, world, and event creation [33, 34]. Others have looked at how modifying IDN authoring tools to make them more usable can provide more entry points for learners to explore complex topics [35]. However, challenges with authoring tools for learners are often discussed [22, 35, 36].

Studies on IDN pedagogy have identified opportunities and challenges when borrowing from other domains' educational strategies [22, 37]. Course structures have been explored, developed, and operationalized, as well [34]. Further, scholars and practitioners have identified different instructional strategies for IDN that cut across disciplines. These include project-based learning, deep thinking, learning by doing, T-shaped education, flipped classrooms, and blended learning [22]. Similar work has suggested that educators must give time to both the theory and practice of producing an IDN [36].

Other works explicitly address the lack of formalization in the IDN discipline and suggest ways forward [38] to benefit educators and the field. The proposed effort has a powerful pedagogical effect by building a library of IDN works, affirming a shared vocabulary, bolstering analytical frameworks, and critically studying authoring tools [24]. Decolonialized approaches to IDN pedagogy have also been pursued to counter colonial norms of universalism and Eurocentrism in the field [39]. Taking up the calls in these previous works, the IDN syllabi project encapsulates the global academic community's efforts to address the complexities of IDN teaching practices, the enhancement of the pedagogical framework through a shared vocabulary, the building of the library of IDN works and authoring tools, and the identification of effective instructional strategies.

2 The Process of Collecting and Organizing Syllabi

Over the course of a year and a half, the research project has collected 42 syllabi from nearly every continent and region across the globe except Central Asia, Oceania, and Antarctica (Fig. 1). The project began by creating a general call distributed via WikiCFP, ARDIN and its partners, the Gamesnetwork listserv, and a project website at https://idn syllabi.com. The CFP was translated into Arabic, English, Japanese, Spanish, French, Hindi, Italian, Portuguese, Russian, and Indonesian on the website[1]. In the CFP, we asked authors to indicate an intention to participate and to see if they would be interested in being a regional editor. These regional editors were meant to help source syllabi from programs and institutions in their geographic area. The initial call received 47 responses from November 2022 until April 2024. Of these 47 responses, 16 respondents expressed interest in being regional editors, and six committed to the role. These regional editors came from Portugal, Hungary, Taiwan, Indonesia, the United States, and Italy.

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[1] The CFP for the project is still available and will have more translations added as the work continues.

The authors then worked with the regional editors to format and source the syllabi. Some regional editors struggled to achieve a broad reach, specifically in East and Central Asia and Africa. All participants were given a template to unify the syllabi's organization and content. The authors were also asked to provide a separate reflection about the origin of the course, what has worked, and what needed to be improved. This template can be found in Appendix A. Graduate assistants, and the authors then reviewed syllabi with the instructors to ensure the forms were complete and properly filled out. This occurred in a rolling process over the course of the project.

With 11 contributions, the United States is the country with the highest number of syllabi included in the study, followed by Colombia with four syllabi, Portugal with three, Canada, Italy, South Africa, Hungary, The Netherlands, and Spain with two; and Indonesia, Ghana, Sweden, Korea, Switzerland, Denmark, Iran, Singapore, Serbia, UK, Turkey and Greece with one syllabus per country. The authors could send their syllabi as they were taught in the course's native language and an English version.
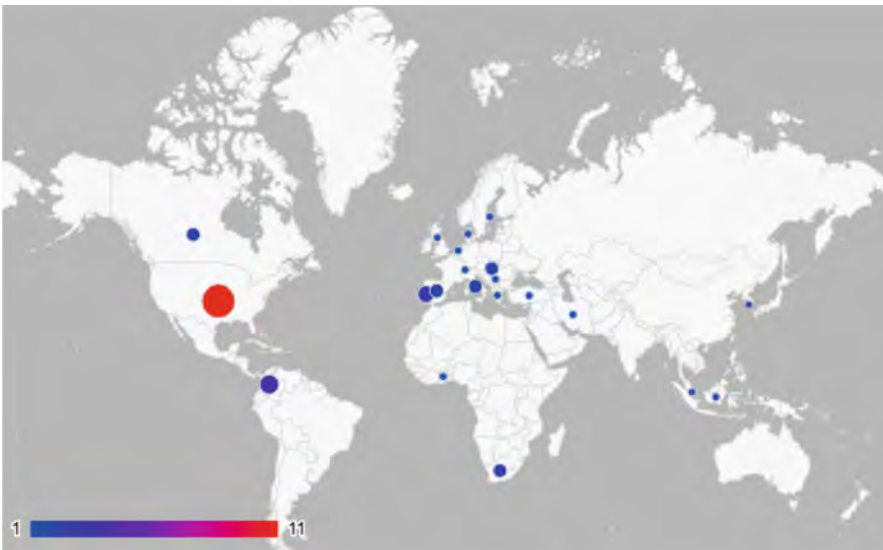

Fig. 1. The locations of the IDN Syllabi from across the world

2.1   Method of Comparative Analysis for the Syllabi and Reflections

The authors employed a qualitative comparative analysis methodology to surface the patterns shared between the syllabi. While enough syllabi were collected for a valid statistical comparative analysis, the authors feel that without more regions and universities represented in the data, claims or insights about how IDN is taught worldwide may be mis-assessed in their scale and obfuscate the reality that many results come from the global north and west.

A case-oriented approach was chosen over a variable-oriented approach for comparative analysis. The case-oriented approach involves developing "in-depth knowledge of a small number of cases [to] provide the basis for generalizations that are temporarily limited to the cases studied." [40] The particular value of this approach for the living and dynamic project is that it develops an in-depth dialogue between the researcher's notions and the data, which occurs through detailed analysis of each case to understand a complex unity [40]. What results from this work are what Weber refers to as an ideal unified construct, "abstracted out of certain features [and] keeping the essential features" [41]. These features are how an IDN is taught in a particular manner, at an educational level, in a specific region, with novel material, using particular assignments.

Case-oriented comparative analysis begins by establishing certain parameters by which differences can be discovered. These features are reflected in the syllabus template that syllabi contributors were asked to complete and submit to describe the course materials and major assignments. An inductive approach for the categorization of domains was chosen. The researchers developed the four domains from a review of which departments offered IDN courses. For the fields in the template, the researchers engaged in deductive reasoning based on their combined 30 years of experience teaching and researching IDNs. From this experience, the researchers developed the comparable parameters of course type, department, level, credits, length in weeks, medium of delivery, course description, objectives, course materials, weekly outline, and best practices. Further, the authors collected data on major assignments: their purpose, platform, project length or size, aesthetics, coding proficiency, and how instructors evaluated those assignments for interactivity, story and narrative, and production value. The authors did not establish different parameters for the reflections. However, each reflection from the educator helped the researchers better understand the context within which the syllabus was delivered and, possibly, what could be done better in a different context by identifying successes and failures [13].

By January 2024, the researchers had the bulk of the syllabi and reflections in hand and could begin a process of iterative analysis. The researchers uploaded all the material into the Dedoose platform. They independently coded three syllabi and reflections using the predefined variables as top-level domains and then deducing more specific codes independently. This was to develop a thicker description of what was occurring in the syllabi and reflections. The researchers then compared how they coded the data and what new codes they developed. From these conversations, a codebook was developed and then iterated on twice more as the researchers came to an agreement on their refined set of variables and their meanings. The researchers then used the codebook to collaboratively analyze syllabi that had been self-identified by their instructors as a survey course. After reviewing each other's work and feeling confident that all researchers agreed on the codes and process, the researchers coded and analyzed their own set of syllabi. This resulted in further refinement of the codes, and the researchers often iterated over already analyzed material to achieve a comprehensive analysis over five months.

3   Results and Analysis

The analysis effort resulted in 50 top-level descriptors and 129 different codes, applied 2032 times to 1440 excerpts. This study presents the analysis of the syllabi data as the reflections are outside the scope of this paper. Regarding descriptors, the collected syllabi were divided into four main domains that reflect the focus of each course as self-identified by the instructors: (i) Survey: these four syllabi focus on teaching the IDN as a field comprising history, theory, and practice; (ii) Humanities: these 11 syllabi belong to Humanities faculties or have a humanities-oriented syllabus comprising arts, languages, and culture; (iii) Design and Technology: it gathers 15 technology-oriented syllabi in this domain. These courses teach authoring tools, design, and platforms to create IDNs; (iv) Social Sciences: these 12 syllabi belong to Social Sciences faculties or departments, such as education, communication, management, tourism, psychology, or sociology. These syllabi characterize the application of IDN in different social settings. Figure 2 shows the diversity of the different instruction levels of the courses across the four domains. The graphic highlights that the domain with the most Master courses is Social Sciences, and that the domain having a PhD course is Design and Technology. The Survey domain offers two master's and two undergraduate courses, while the Humanities offers more undergraduate than graduate courses.
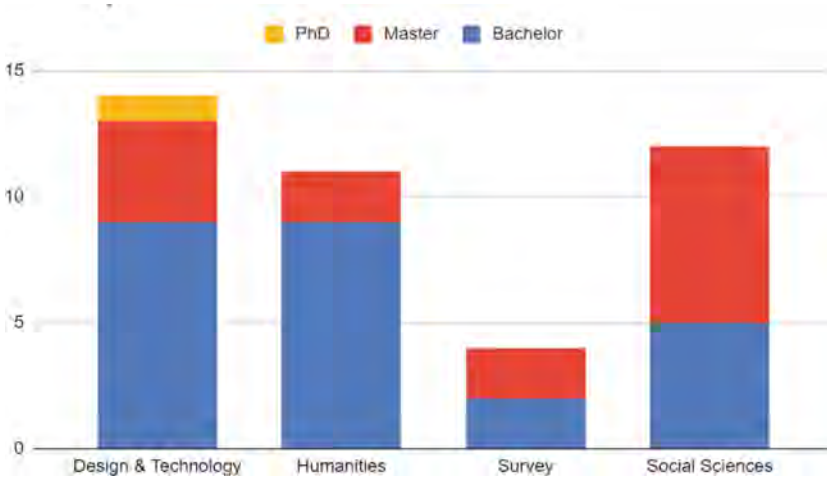

Fig. 2. Syllabi Education Levels per Domain

The collected syllabi also vary in duration, modality, and the number of credits associated with each course. We are not converting credits into a standard unit and are only sharing what instructors mentioned. In-person courses represent 70% of the syllabi, while hybrid courses make up 20% and online courses make up 10%. Most of the courses span 15-weeks during a semester as shown in Fig. 3.

Designing a well-structured syllabus is a fundamental aspect of course planning, as it serves as a blueprint for both the instructor and students. Four relevant aspects of the
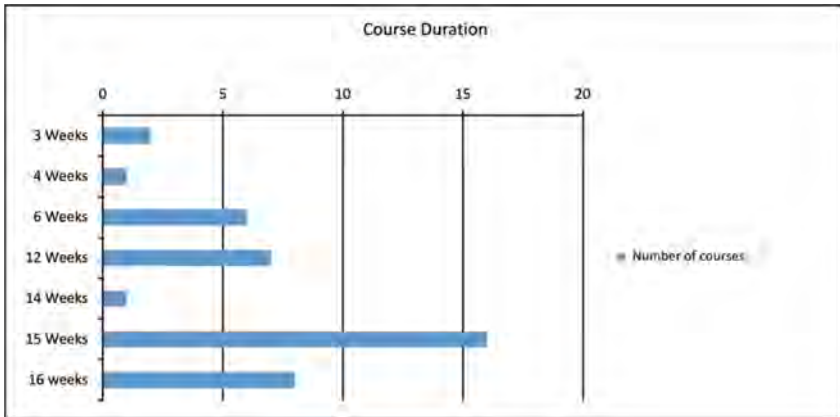
Fig. 3. Course duration in weeks

syllabus are clear learning objectives, course structure, course materials, and assignments [42]. The way professors align these aspects with their goals informs their pedagogical approach. To that end, this section presents insights regarding the objectives, course structure, major assignments, and course materials per disciplinary domain.

3.1 Objectives

Objectives define the specific knowledge, skills, and competencies that students are expected to acquire by the end of the course. Objectives should be Specific, Measurable, Achievable, Relevant, and Time-bound as proposed by the SMART framework [43]. Learning objectives, often referred to as learning outcomes, help students understand the clear expectations they need to meet to succeed in the course.

Survey. The courses share several core objectives, all focusing on the theoretical foundation necessary for IDN production. Undergraduate courses emphasize critical thinking and practical application, while graduate courses delve into research methodologies and advanced production techniques. For instance, Prof. Renske van Enschot's *Interactive Storytelling* course equips applied sciences students with advanced IDN principles, emphasizing usability and enabling them to excel in various professional roles.

Undergraduate courses prioritize analytical reasoning and skilled IDN authorship, while game-studies courses focus on narrative discourse and media studies. Prof. Mark Marino's undergraduate course *Reading and Making Digital Literature* explores electronic literature, including poetry generators and IDN, to develop multimodal reading skills. In Prof. Eric Stein's game-studies course Interactive Storytelling, students study and practice game story scripting, writing for interfaces, dialogue and narration, and technical writing for video games.

Humanities. These courses focus on IDN theoretical foundations, media literacy and effective IDN writing, project management, and professionalization. Theoretical foundations and production processes are balanced in humanities courses. Graduate courses place the highest emphasis on IDN Theoretical Foundations and Research with IDNs.

Communication courses focused on applying IDN to convey ideas and concepts, while other domains emphasized the production aspects of IDN. For example, Prof. Jacob Euteneuer's *Digital Rhetoric and Interactive Media* is designed to equip students with the skills to understand and create persuasive IDNs. The course is based on the multimodality principles of the New London theorists, promoting literacy in both the production and reception of digital content, emphasizing the rhetorical potential of interactivity.

Design and Technology. These courses emphasize hands-on IDN creation and technological expertise, focusing on developing practical projects supported by theoretical foundations. This approach is particularly evident in undergraduate courses and graduate programs in Design, AI, and Humanities, indicating a project-based instructional style where students create practical IDNs while developing a theoretical understanding.

Games and Media undergraduate programs have a broader scope, encompassing critical thinking, professionalization, user experience, usability testing, and effective IDN writing. This multifaceted approach includes industry-oriented projects, user testing workshops, and critical analysis sessions, aiming to equip students with diverse skills for various aspects of IDN development and application.

For example, in Dr. Christian Roth's *Minor in Interactive Narrative Design*, students learn IDN theory, history, and practice, then work as a "production studio" to develop teamwork skills and familiarity with industry processes. This minor shows how students can achieve different objectives, from understanding to developing and applying IDNs for specific markets and audiences.

In contrast, undergraduate English programs with Design and Technology syllabi emphasize media literacy. This focus involves critical analysis of existing IDNs, exploring narrative structures across different media, and comparative studies between traditional and digital narratives. For example, Dr. Jason Boyd's *Narrative in a Digital Age* program encourages students to explore digital technologies' impact on post-print-era storytelling and compare these insights with new digital works.

Social Sciences. All courses emphasize understanding narrative structures and storytelling techniques to empower students to craft stories and engage audiences around particular societal issues. They often integrate tools that foster engagement and societal impact. The section's most relevant objective is the development of critical analysis skills to understand how stories function across media forms.

This is evident in the course *Digital Storytelling for Social Innovation* developed by Prof. Thandiwe Matyobeni from South Africa, and the syllabi that belong to the *Convergence* courses from Prof. Alejandro Ángel-Torres in Colombia. These courses share the objective of understanding audiences' social contexts and their relationship with digital content in order to craft engaging narratives.

In general, all social sciences courses are designed to give students the skills they need to construct their IDNs. Some courses encourage students to distribute and show their work outside of the classroom, with the objective of connecting their work with industry and familiarizing them with their near professional future. This encouragement is done by Prof. Arnau Giffreu-Castells in the course *Audiovisual and Multimedia Languages* where students' final projects "are exhibited on video aggregator platforms, showcased

at university sections of festivals; and presented at the 'University Pitching' organized by the Audiovisual Cluster of Catalonia."

Lastly, these curricula teach how narratives affect our world. For example, the course *Cultural Interactive Narratives: from Data to Script* designed by Prof. Angeliki Chrysanthi in Greece. Its objectives aim for students to "analyze critically examples of interactive digital narratives" and also to "understand the meaning of cultural representation and the concept of reusing cultural resources as well as their practices."

Analysis of Objectives. Common goals among the 42 syllabi are the development of critical analysis abilities, theoretical underpinnings, and IDN creation. Every course provides methods for designing, prototyping, and analyzing IDNs. However, every discipline and education level have its own characteristics. Undergraduate survey courses emphasize critical thinking and core theories, whereas graduate programs concentrate on evaluation techniques and usability concepts. Theoretical foundations and production processes are balanced in Humanities courses, with a focus on research in graduate curricula.

Design and technology courses emphasize hands-on IDN creation and technological expertise with a strong emphasis on developing practical projects. These courses include more practice-based modules than theory. Similarly, courses focused on technologies center on the media and how it impacts narrative development. Social Sciences courses uniquely integrate the analysis of narrative structures within societal contexts, highlighting the importance of critical analysis and interactors' engagement.

3.2   Course Structure

Ranging from an intensive two-and-a-half-day postgraduate course to a 16-week undergraduate course, structures vary according to level, institution, and goal. While no consistent correlation exists between course duration and level, undergraduate survey courses generally extend over 15 weeks, allowing for a deeper engagement with theory and practical applications. A typical pacing is Prof. Andy Phelps' *Writing for Interactivity,* which moves over 15 weeks to the production of a playable prototype. By week 7, the course has begun transitioning away from theory.

In contrast, some graduate courses are often shorter, focusing intensively on specialized topics and practical applications within a condensed timeframe. Prof. Van Enschot's graduate course is only seven weeks but is meant to introduce a wide range of professionals to how they might use IDN as part of their professional practice.

Survey. Survey programs cover a variety of IDNs as they introduce students to the foundations of IDNs. They often include a practice component, tested with a coursework component. Prof. Marino's *Reading and Making Literature* utilizes two projects to provide students with the foundations of IDN before enabling them to work on larger scale projects. The Prof. Van Enschot's course has a midterm exam before any production takes place.

Humanities. All the submitted humanities courses are 15 weeks long and expose students to technology at various levels according to the learning objectives. These differences result in different types of interactive media as the subject of study—such as literary texts,

games, or interactive storytelling—and different methodological approaches, whether theoretical or hands-on. Some address specific issues of IDNs, such as ethical implications and inclusivity, but focus varies according to the educational context of the course. Prof. Colette Daiute's *Research with/in/on Interactive Digital Narrative* equips graduate students from diverse social science disciplines with the skills to integrate IDN into their research. With a strong focus on social justice, the course inspires students to formulate research that informs and actively contributes to social change, utilizing IDN to mediate and enhance the study of human consciousness, interaction, and societal transformation. A robust 15-week structure is required to give students enough time to achieve these goals.

Design and Technology. These syllabi emphasize practice and production. For instance, a 15-week undergraduate program expects four deliverables across different platforms, with playtesting as part of the assessment. In Prof. David Antognoli's *Interactive Narrative Design* course, students work with Twine, Bitsy, a paper-based RPG, and Unity.

More focused courses limit themselves to two projects: an initial attempt with a basic authoring platform like Twine, followed by a more specific implementation. For example, Prof. Fisher's *Nonlinear and Interactive Storytelling* graduate syllabus follows Twine-based IDN development with a group project on immersive journalism using augmented reality.

While binary structures are common, a ternary division allows a course to cover three themes: Writing Machines, Electronic Literature, and Digital Games and Narrative. Shorter courses, mostly at the graduate level, focus on applying students' existing development skills to IDNs. A 6-week program convenes once weekly, combining theory in the morning with group work in the afternoon. For example, Prof. Luis Emilio Bruni's graduate course *Narratives in Interactive Systems* covers IDN frameworks, narrative immersion, XR, and digital cultures in morning sessions, with afternoon workshops and assignments. At the highest level, Ph.D. students attend a two-and-a-half-day workshop to debate and demonstrate IDN foundations, culminating in a day-long collaborative effort to produce an IDN.

Social Sciences. There is a demarcation of structure in these syllabi, with undergraduate programs running over an average of 13 weeks while graduate courses run over only 4 weeks (even though one spreads the same number of hours over 11 weeks). In this structure, courses also start with theoretical instruction on IDN foundations to inform the practical assignments. Undergraduate programs apply IDNs in various fields such as education, languages, culture, journalism, cultural heritage, and museum exhibitions. The course *Multimedia and Digital Storytelling in Education* by Prof. Anita Lanszki exemplifies this by alternating digital storytelling classes with applications in the field of education. Such programs have time to analyze and critique existing IDN artifacts in the theoretical part while including peer reviews and project presentations. Graduate courses similarly scope their four-week engagements over specific topics. The course *Theater for Management* designed by Prof. Carlo Presotto in Italy, asks their students to develop an interactive digital performance and present it at a specific venue.

Analysis of Course Structures. The course structures share several similarities despite differences in duration and level. Undergraduate programs typically extend over 15 weeks, while graduate courses are more condensed, usually lasting 5–6 weeks. Despite this variation, most courses follow a similar pedagogical trajectory: beginning with theoretical foundations and gradually progressing to practical applications. This approach ensures students develop a solid understanding of IDN concepts before engaging in hands-on projects.

Survey programs require time to help students develop the necessary skills to deliver quality work, often including mid-course submissions for feedback. A graduate program might fit all this into 7 weeks by running theoretical and practical components in parallel, culminating in an exam and a group project. Humanities courses develop student skills from theory to practice, starting with foundational theories and critical reviews of IDNs, progressing to practical skills like IDN design, storyboarding, and prototype development, and concluding with an IDN project or presentation.

Social Sciences courses often alternate theoretical foundation lessons with practical projects specific to social science applications. The duration and depth of coverage depend on the program's focus. Survey courses cover a broad range of IDN topics, incorporating both theory and practical projects. Design and technology courses emphasize practical skills, while humanities courses balance theory and practice. Specialized short courses, especially at the graduate level for the social sciences, leverage students' pre-existing skills and focus on advanced IDN applications in fields like immersive journalism and augmented reality.

3.3 Assignment Overview

Each syllabus presented several major assignments, being assignments where the weight of the assessment was 25% or higher of the final grade. There is a variety of scope, methodology, evaluation criteria, and technology across the collection.

Survey. Assignments begin with a theoretical examination that informs the practical projects students undertake. Initially, students analyze existing IDN artifacts through papers, presentations, or written exams, particularly in shorter courses. Later in the semester, students produce IDNs, applying the design strategies and paradigms they have learned and reflecting on their work. For example, in Prof. Eric Stein's *Interactive Storytelling* course, students analyze stories and develop presentations to demonstrate their knowledge. They start writing only after week 4, with a more advanced project beginning in week 9 of the 12-week semester. In Prof. Phelps' *Writing for Interactivity*, students are encouraged to write a 2–3-page reflection on how ideas, theories, design strategies, and structures presented in readings are reflected in their own designs. These projects aim to help students provide player agency through meaningful narrative interaction, engaging characters, and consistency across multilinear narratives, while considering aesthetics and novelty.

Humanities. Assignments in this section focus on analyzing and creating IDNs, emphasizing narrative analysis, societal implications, and interdisciplinary applications. Assignments incorporate interdisciplinary concepts to expand the applicability of IDN techniques. For example, Profs. Réka Lugossy and Mónika Fodor's course, *Narratives*

and Digital Storytelling in TEFL, integrates English as a Foreign Language with digital storytelling techniques. This course blends theory with practice, aiming to develop students' capacities as English teachers and digital storytellers. Students explore narratives' roles in cognitive, linguistic, and identity development through critical engagement with children's and young adult literature.

Evaluation criteria are generalized into two broad categories: technical and production, and narrative and creative. Technical and production criteria include production quality, pushing technological limits, and choosing the right technology for narrative interactions. Production is also evaluated through structural and aesthetic consistency, demonstrating a unified artistic or narrative vision for an IDN. In Prof. Dave Pape's *Making and Being Made by Media: Introduction to Game Studies*, "students are encouraged to experiment with new forms and media, with evaluations focusing on the originality of the execution and how these innovative approaches contribute to the overall impact of the narrative." This encourages students to push the boundaries of traditional formats and demonstrate creativity in their choice of tools and their narrative impact.

The narrative and creative criteria include meaningful narrative interactions, creativity and innovation, narrative quality, and maintaining consistency through narrative structure and aesthetics. In Prof. Lyle Skains' *Transmedia Storytelling*, evaluation includes "ensuring that the aesthetic quality and thematic elements are consistently applied across different media formats used in the project." This emphasizes maintaining a consistent thematic and aesthetic approach across various platforms such as video, text, and interactive elements, teaching students the impact of production on narrative meaning-making.

Design and Technology. Assignments emphasize technical skill development through project-based learning w. Students engage in substantial group work with various media forms, pushing technological boundaries to integrate narrative and technical skills. For example, Prof. Lyle Skains' course expects students to focus on portfolio development through the creation of two playable fictions followed up by a reflective essay analyzing the narrative practice undertaken.

As design and technology assignments have an authoring platform learning curve, students submit a mid-term attempt at a project to receive feedback and guidance for their final deliverable. For example, Prof. Hesam Sakian offers an undergraduate programme titled *Virtual Reality IV: XR in Game, Gamification and Interactive media* which gives students experience on mobile sensors in the first project to then create an Augmented and Virtual Reality based project for the final submission.

Less technologically demanding assignments expect a submission in which existing IDNs are analyzed and criticized through contemporary theory before insights are implemented in a final project. For example, *Intelligent Storytelling,* from Sungkyunkwan University, asks students to analyze research papers related to narrative theories learned in class, present findings, and then follow up with an interactive story project.

Narrative and creative criteria include innovation and originality, narrative quality, meaningful narrative interactions, creativity, and personal reflection. Prof. Vincenzo Lomardo's *Hypermedia Laboratory* from University Beira Interior, for example, values the creativity shown in using Twine to visualize the narrative components identified in their analysis of a linear narrative.

Social Sciences. These syllabi's assignments fall within three categories: The first is the development of an interactive narrative. For Prof. Barbaros Bostan's course in Turkey, *Basics of Storytelling*, students are required to use Twine or Articy: Draft 3 to develop their game writing skills by creating a branching game story set in a fictional tabletop role-playing world chosen by the instructor, such as Planescape or Ravenloft, utilizing the three-act structure. The second category is the creation and/or integration of multimedia materials such as text, images, sound, and video, enabling them to learn the narrative affordances of each and how they complement each other. In the course *New Formats in Journalism* by Jorge Vázquez-Herrero, students need to develop web projects that embed different types of content into a coherent narrative. The third category is the analysis and evaluation of existing IDNs in their various forms, such as games, novels, or interactive documentaries. Courses as *Audiovisual and Multimedia Languages* or *Convergence* present a consistent list of IDN artifacts to explore and analyze during the length of the course.

Analysis of Assignments. IDN courses very often combine theoretical underpinning with real-world applications in their assignments to reflect the disciplinary diversity of the field. Common assignments include designing and/or developing IDNs, evaluating existing IDNs from a design, critical or applied point of view, and doing retrospective and analytical reflections about their own creative processes. Some differences are related to the level of instruction, as in graduate courses frequently rely on midterm of final projects, while in undergrad courses the ongoing assessment is key to monitor the learning progress of the students. Practical work is encouraged in the four domains, with more emphasis on the Design and Technology courses. In general, hands-on assignments also involve teamwork and peer review, imitating industry-like scenarios. Humanities and survey courses often include interdisciplinary concepts into the work, while Social Sciences assignments are frequently connected to a real-life applied project for other professional fields.

3.4   Course Materials Overview

While a wealth of learning materials is referenced in the corpus, the authors have only included an item below if it was shared between at least two syllabi. Accordingly, this overview offers only a snapshot of shared resources among the courses surveyed. However, it is essential to note that this selection is shaped by the specific teachers and departments involved; it only encompasses part of the diversity and entirety of available materials in the field.

After reviewing the table, it becomes clear that while much may be shared between courses in the same domain, little is shared between courses in different domains. However, Twine the authoring tool is used by all domains. Note that there is a disparity between the release dates of IDNs being taught in the Humanities versus Design and Technology. The Humanities courses appear to tend toward classical examples whereas Design and Technology explore more recent works.

Table 1. Shared Course Materials by Domain

	Survey	Humanities	Design and Tech	Social Sciences
Readings		–Narrative Across Media: The Languages of Storytelling	–Ludonarrative Dissonance in Bioshock (2009) –The Garden of Forking Paths –Hamlet on the Holodeck (Murray, 2018) –Game Design as Narrative Architecture (Murray, 2018) –Twine Cookbook	–Interaction and Narrative (Mateas, 2002) –From Narrative Games to Playable Stories: Toward a Poetics of Interactive Narrative (2009) –Narrative as Virtual Reality 2: Revisiting Immersion and Interactivity in Literature and Electronic Media (2015) –Hamlet on the Holodeck (Murray, 2018)
Viewings				–The Stanley Parable/ Videogame: Playthrough video –Choice Architecture, Player
IDNs	–AI Dungeon (Latitude, 2019)	–The Oregon Trail (MECC, 1971) –Colossal Cave Adventure (Crowther, 1976) –The McDonald's Game (Pedercini, 2006) –The Play (Squinkifer, 2011) –Howling Dogs (Porpentine, 2012) –Depression Quest (Quinn, 2013) –Queers in Love at the End of the World (Anthropy, 2013) –The Uncle Who Works for Nintendo (Lutz, 2014)	–Façade (Mateas, 2005) –Dys4ia (Anthropy, 2012) –Save the Date (2013) –The Last Hijack (Wolting and Pallotta, 2014) –Her Story (Barlow, 2015) –Late shift, an Interactive Move (CtrlMovie, 2016) –Oxenfree (Night School Studio, 2016) –Firewatch (Santo, 2016) –Bandersnatch (Slade, 2018) –Half-life: Alyx (Valve, 2020) –Unpacking (Brier, 2021)	–The Writer Will Do Something (Burns & Bissell, 2015) –What Remains of Edith Finch (Giant Sparrow, 2017)
Tools	–Twine –Unity –Inky	–Twine –Bitsy –HTML	–Twine –Unity –Unreal	–Twine –Youmescript –Omeka

4   Conclusions and Future Work

This preliminary analysis of IDN pedagogy shows some commonalities across teaching approaches globally, but also some differences that demonstrate the strength of the field and its relevance across disciplines. Future work should look beyond the pre-established domains to develop new and dynamic ones as the project grows and new syllabi are collected. This effort will only be strengthened by sourcing syllabi from underrepresented regions. Although the domains may change, all courses strive to foster critical thinking, academic knowledge, and practical IDN creation abilities.

A pedagogical approach that features in most IDN syllabi is the constructivist approach, where students learn through their own discovery [9, 10], situated "in real world contexts, constructing their own knowledge whilst carrying out meaningful tasks" [22]. Due to the nature of the subject of IDNs, narrative pedagogy is also central, wherein "overall meaning emerges from and is co-constructed from conversations amongst those involved in the learning environment" [44]. Many syllabi reported pedagogical approaches that encourage collaborative learning. These include student-led discussions and peer-review exercises, which are especially prominent in the Humanities section and feature in Design and Technology syllabi, facilitating meaningful conversations and shared learning experiences among students.

The Survey, Social Sciences, and Humanities sections emphasize creative writing for production and development over technical skills. However, across all disciplines, IDN pedagogy focuses on hands-on, experiential learning, teamwork, and reflective practice. Major assignments in Design and Technology, Social Sciences, and Survey sections provide students with practical experience in creating theme-based IDNs. The Humanities section also prioritizes applied learning, drawing on Cazden et al.'s work [37] on literacy and multimodality, aligning with the field's overall emphasis on practical skill development.

Future work includes a dedicated website with an open call for incoming syllabi, the creation of a dynamic map illustrating the geographic distribution of the gathered syllabi and a repository of readings, viewings, IDN artifacts and authoring tools. This platform would serve as a resource for educators and researchers alike, fostering collaboration and knowledge exchange for IDN pedagogy.

Appendix A. Template for Syllabi and Reflections

Syllabus Template

<<Course Title>>

<<Author1's name, title, department, university, city, country>>
<<Author2's name, title, department, university, city, country>>
<<add as necessary>>

Course Type: <<Survey/Humanities-focused/Social Science-focused/Cognitive Science and Psychology-focus/Design and Technology-focused>>
Keywords: <<List of four or five comma-delimited keywords>>

University	Department	Level	Credits	Length	Medium
<<University>>	<<Department>>	Undergrad/Graduate/PostGraduate	<<Credit value, e.g. 3>>	<<no. of weeks, e.g. 15>>	<<In-person/online/hybrid>>

Course Description

<<80–100 words>>

Course Objectives

<<bulleted list of 4–10 course objectives>>
<<course objective 1 > >.
<<course objective 2>>
<<course objective 3>>
<<course objective 4>>

Course Materials

Readings
• <<Bulleted list of readings>>
• <<Title 1, authors (format)>>
• <<Title 2, authors (format)>>
Viewings
• <<Bulleted list of video clips/animations>>
• <<Title of clip/animation (Platform)>>
IDN Artifacts
• <<Bulleted list of IDN artifacts>>
• <<Title of IDN artifact (Platform)>>
IDE and IDN Authoring Tools
• <<Bulleted list of IDE and IDN Authoring Tools>>
• <<Title of tool (IDE/IDN Authoring Tool)>>

Weekly	Outline
Week 1.	<<Topic title for week 1>>
Week 2.	<<Topic title for week 2>>
Week 3.	<<Topic title for week 3>>
Week N.	<<Topic title for week N>>

Major Assignments (being assignments whose value is of 25% or more)

- <<Title1>>

    - Platform: <<Platform name, e.g. Twine>>
    - Purpose: <<description of the aim for this assignment>>
    - Requirements:
        Project Length: <<in minutes or hours>>
        Project Size: <<in structural terms, e.g. 7 passages, 3 rooms, 5 scenes>>
        Project Aesthetics: <<what aesthetic aspects are being sought in this assignment>>
        Coding Proficiency: <<what technical aspects are being sought in this assignment>>
    - Evaluation:
        Interactivity: <<what criteria would be assessed in terms of interactivity. What would a top-grading submission have in terms of interactivity to merit a high grade >>
    - Story and narrative: <<what criteria would be assessed in terms of story and narrative. What would a top-grading submission have in terms of story and narrative to merit a high grade >>
        Production values: <<what criteria would be assessed in terms of production value. What would a top-grading submission have in terms of production value to merit a high grade >>
        <<Add as necessary….>>

Course Best Practices

- <<A bulleted list of best practices>>
- <<E.g. How where the contact hours spread out (hours per session, sessions per week, etc.).
- <<allocation of sessions to practice, reflection, peer reviews, workshops, etc.>>
- <<use of additional lecture resources for offline studying>>
- <<relationship between course material and assignments>>
- <<dissemination options for students' work>>

Reflection

Directions

To put your syllabus and work into context, please write a maximum of 1500–2000 words(excluding citations). This document will be published and sent to your peers to begin a global discussion about teaching IDN. Please include citations in APA 7th Edition. Avoid images and keep a conversational tone.

Things You Might Address

- Successes, failures, and surprises when teaching your course.
- The adaptability of the syllabus to different levels of instruction and/or different programs.
- Why certain artifacts or software were important to you.
- Typical entry profile of student
- Student responses to assignments and material.
- Motivations to develop this syllabus.

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