EMPOWERING LIBRARIES AND TOY LIBRARIES WITH CLAG, A CLASSIFICATION OF PLAYS AND GAMES

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Abstract: *This article presents ClaG, a classification system for games and plays developed at University of Pavia, Department of Musicology and Cultural Heritage (Italy) and the Italian Games and Plays Documentation Centre (AIG) in Udine (Italy). Responding to the need for a structured, functional organization of a large board game collection, ClaG integrates principles of knowledge organization with inclusive design. Implemented via a* Wikibase cloud instance Cla-G *— available at <https://cla-g.wikibase.cloud/wiki/Main_Page> — it provides a scalable, FAIR-compliant framework supporting cataloguing, retrieval, and accessibility. ClaG facilitates user-centred reference services, allowing librarians and educators to match games with diverse players' needs, skills, and preferences. Its faceted structure — addressing space, materials, setting, outcomes, genre, and age — enables nuanced selection and supports cultural and cognitive inclusion. By recognizing games as legitimate cultural and educational resources, ClaG offers a methodological and conceptual shift in library science, advancing equity and representation in collection management. The system bridges the gap between knowledge organization and play, positioning games as tools for learning, social engagement, and community building.*

Keywords: *ClaG; Classification; Play; Game; Inclusion.*

Resumo: *Este artigo apresenta o ClaG, um sistema de classificação de jogos e atividades lúdicas desenvolvido na Universidade de Pavia, Departamento de Musicologia e Património Cultural (Itália), e no Archivio Italiano dei Giochi (AIG) em Udine (Itália). Em resposta à necessidade de uma organização estruturada e funcional de uma grande coleção de jogos de tabuleiro, ClaG integra princípios de organização do conhecimento com design inclusivo. Implementado através de uma instância* Wikibase Cloud Cla-G *— disponível em <https://cla-g.wikibase.cloud/wiki/Main_Page> — oferece uma infraestrutura escalável e compatível com FAIR, facilita a catalogação, a recuperação e a acessibilidade. O ClaG suporta serviços de referência centrados no utilizador, permitindo aos bibliotecários e educadores adequar os jogos às necessidades, competências e preferências de diversos jogadores. A sua estrutura facetada — que considera o espaço, os materiais, o cenário, o resultado, o género e a idade — facilita a inclusão cultural e cognitiva. A ClaG propõe uma revalorização metodológica dos jogos como recursos culturais e educativos, promovendo a equidade e a representatividade na gestão das coleções.*

Palavras-chave: *ClaG; Classificação; Jogo; Atividade lúdica; Inclusão.*

INTRODUCTION

In 2017, the Municipality of Udine (Italy) established the AIG, Archivio Italiano dei Giochi (Italian Games and Plays Documentation Centre), a documentation

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centre on game culture dedicated to the collection, preservation, study, research and valorisation of the cultural and social heritage represented by games. At present, the AIG houses a collection of about 2,800 board games and over 700 publications, almost completely catalogued.

In view of its size, a classification system for plays and games was needed. In fact, the AIG's collection of games makes it necessary to adopt a functional physical organization for the use and study of games. But it is also the main lines of action of the AIG — including the collection, cataloguing and classification of games (mainly board games) and toys, the organisation and management of a specialised library in games and toys, game design, education, animation, pedagogy, play didactics and the publication of works on games and toys — that require an organization of the collections on a scientific basis. Finally, the use of the collection of plays and games to promote inclusion of players with different gender, age, physical, social or intellectual skills and cultural background was to be promoted.

In the past, a tagging system, *i.e.* a list of terms to help label games within the OPAC (*Online Public Access Catalogue*), was created by Dario de Toffoli — board game expert and author, and director (from 2017 to 2020) of the AIG. However, this list was not sufficient to form the basis of a systematic and adequate classification useful for the physical management of the collection for reference service to any kind of users. In fact, it was characterised by being a list of «words or terms identifying concepts […] simply juxtaposed one after the other» (Gnoli 2020, p. 49). It was a list of terms that was certainly broad and relevant, but lacking a detailed definition and guidance for each concept and group of concepts: thus, this list lacked two of the three fundamental dimensions of a proper library classification: the plane of ideas and the plane of notation (Ranganathan 1967, p. 114). Taken together, these terms — which often were not mutually exclusive — constituted an indexing tool that was very difficult to implement by cataloguers and unsuitable for the organisation of a physical collection. For these reasons, the AIG needed to identify and adopt an effective classification system for the management of its games collection and, in the autumn of 2022, a research group on game classification was created with the aim of developing a specially designed classification[1]. The draft of the classification underwent a first application by game cataloguing experts in summer 2023; later, in spring 2024 the new draft was presented for an open review to experts and stakeholders in *Play Modena*, the most important game fair in Italy, and at the University of Pavia (in Cremona). The first edition was published in November 2024, at the Biblioteca Civica «Vincenzo Joppi», the public library of Udine, Italy, and a partial english translation

[1] Members of the working group were: Carlo Bianchini, Claudia Mauro, and Paolo Munini.

was presented at the *European Toy Libraries Association Meeting* in Naples, April, 4th 2025 (Comune di Napoli 2025).

Finally, *Cla-G*, a tool to classify, was implemented to facilitate the classification process, by means of a novel *Wikibase cloud instance*[2].

1. THE PURPOSE AND SCOPE OF CLAG

ClaG is intended to be a practical tool to highlight the characteristics of a game that are useful for the purposes of choice, search, identification and delivery (and relocation) by the staff of a game, or a set of games, to a player or a group of players presenting themselves as users of a game library or library with a collection of games. It is also capable to enable the representation of accessibility features of plays and games of the collection. One of the most important bibliographic classification scholars of our time, when asked what the purpose of a bibliographic classification is, replies:

> *it is to organise books into a helpful sequence, or, rather, to mechanise the arrangement of books in a helpful sequence. It is also to help mechanise the correct replacing of books returned after use. Again, it is to help fix the most helpful place for a newly added book among those that are already in a library* (Ranganathan 1959, p. 7).

If, in this quotation, the term 'book' is replaced by the terms 'play' and 'game', the purpose and limits of ClaG are fully clarified.

Moreover, ClaG also aims to help players, educators and enthusiasts recognise and orient themselves among the different types of games, facilitating the identification of those games that best respond to the different preferences, needs and requirements of any kind of users in a certain moment.

From this point of view, ClaG aims to:

- Provide a robust and scalable system for classifying games across institutions, also by means of *Cla-G*, a *Wikibase cloud instance* to publish classification data compliant with *FAIR Principles* (Go Fair [2025]).
- Address the semantic and functional diversity of play as a multidimensional activity.
- Promote inclusive access and representation through a classification system that respects diverse users, needs, and play practices.
- Reinforce the cultural and educational status of games, acknowledging them as significant forms of expression and learning.

[2] BIANCHINI, Carlo, 2024-2025. *ClaG: classification of games for toy libraries and libraries. Wikibase instance* [online]. [S.l.]: Wikimedia [accessed 2025-01-26]. Available from: https://cla-g.wikibase.cloud/wiki/Main_Page.

2. THE DESIGN PROCESS OF CLAG

The first and foremost problem in designing a classification system is to establish, precisely, what it deals with, *i.e.* what objects it classifies (and, of course, what it does not deal with and which remains excluded). Defining what a game is a rather complex task, to which many scholars have devoted themselves, with varying success.

According to Johan Huizinga, author of *Homo Ludens* — which Stefano Bartezzaghi considers «the book that opened up twentieth-century reflection on play» (Bartezzaghi 2017, para. 3.5) — the «play is a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is "different" from "ordinary life"» (Huizinga 1949, p. 28).

According to the *Treccani Vocabulary*, a game is «any freely chosen activity to which children or adults devote themselves, individually or in groups, without any other immediate purpose than recreation and leisure, developing and exercising at the same time physical, manual and intellectual capacities» (Istituto… 2024b). The definition therefore includes a set of activities that is really very broad, ranging from very unstructured outdoor games, such as *Hide and Seek* or *Capture the flag*, to sports, whether Olympic or not, to board games and video games.

Roger Caillois notes that «play is essentially a separate occupation, carefully isolated from the rest of life, and generally is engaged in with precise limits of time and place» (Caillois 2001, p. 6). For Bernard Suits (1978, p. 41), «playing a game is the voluntary attempt to overcome unnecessary obstacles».

To sum up, ClaG's object is play, *i.e.* an activity that is natural, free and spontaneous, an end in itself, endowed with implicit or explicit rules, circumscribed within limits of space and time, with an uncertain outcome, fictitious.

An important distinction adopted in ClaG is the one that refers to the difference between the English terms 'play' and 'game' (and allows for the introduction of an essential characteristic of play, which does not emerge in the two definitions just proposed). For instance, Adams (2014) distinguishes between:

1) Play, which refers to «non-essential human activities that are, usually but not always, recreational as well» (Adams 2014, p. 514), and he adds that ludic activity is one of the four key elements of a game.
2) Game, which is «a type of *play* conducted in the context of a *pretended* reality in which the participant(s) try to achieve at least one arbitrary and non-trivial *goal* by acting with *rules*» (Adams 2014, p. 510).

Furthermore, Adams notes that a competition is a particular «form of play in which players are trying to achieve mutually exclusive goals» (Adams 2014, p. 504).

Anna Bondioli (2002) also emphasises the need to recall the distinction between play and game offered by Avedon and Sutton-Smith (1971); the former is a «behaviour characterised by interest in actions in and of themselves, in which the achievement of a goal is entirely secondary — the child pretending to fall asleep without being sleepy, who enjoys looking at the world from below — and, therefore, is individual, non-socialisable and non-lasting»; on the other hand, the game envisages «the presence of repeatable patterns and predictable results, for example, a game of alternating turns in which, repeatedly, the child tries to take a finger from mummy and mummy withdraws» (Bondioli 2002, p. 32).

Play and game are thus distinguished because, in the latter, the challenge between the players, or between the players and the game itself (as in cooperative games or solitaires), or the author of the game (as in rebuses, riddles and crosswords), is essential, and, for this reason, in the game, rules that allow the competition to take place fairly and with a clear outcome are also indispensable. The game in the strict sense is therefore a particular type of play.

ClaG is intended to cover the entire domain of plays and games, although for practical purposes, it is currently only developed in depth for games that are most frequently found in the collections of toy libraries and libraries[3].

3. METHODOLOGY. FROM THE DEFINITION TO THE CATEGORIES

A conceptual and analytical framework rooted in library and information science theory was adopted to develop the classification system, particularly drawing from:

- Faceted classification theory, including Ranganathan's Colon Classification system;
- A wide recognition of concepts as defined in specialized literature on plays and games, with special attention to works about game design;
- An analysis of most common lists of terms and popular classifications available in literature;
- A bottom-up analysis of the table top and board games of the collection of the Archivio Italiano dei Giochi and a field experimentation during the development of the classification scheme;
- Testing in real-world settings and refined based on feedback and iterative usage[4].

[3] Data from *Cla-G*, the knowledge base created by recording ClaG class numbers of plays and games, show that 211 (90%) out of 234 classified games are agonistic (June 2025). For the query SPARQL to get continuously updated data about genres use the following link: https://tinyurl.com/24rptvk7 [accessed 2025-06-01]. Agonistic games can be easily identified by the "A" notation.

[4] Currently, ClaG is in use at the Archivio Italiano dei Giochi and at the Ludoteca Comunale di Udine.

Through this multidisciplinary lens, ClaG was designed as a faceted, modular, and extensible system.

A major starting point was Salen and Zimmerman (2004) definition of game, based on a careful, interesting and analytical comparison of game definitions provided by leading game scholars such as David Parlett (1999), Clark C. Abt (1987), Johan Huizinga (1949), Roger Caillois (2001), Bernard Suits (1978), Chris Crawford (2000 [1982, 1997]), Greg Costikyan (2002) and Avedon and Sutton-Smith (1971).

The definition proposed by Salen and Zimmerman (2004) allows us to highlight a number of characteristics that proved useful in the creation of this classification and that will be useful in its use: «A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome […] it applies to all types of games, from computer and video games to parlor games and sports» (Salen and Zimmerman 2004, p. 80).

In this definition — which evidently applies to game and not play — there are some fundamental concepts that underpin the construction of ClaG.

One fundamental concept is that play is artificial; this means that «games maintain a boundary from so-called 'real life' in both time and space. Although games obviously occur within the real world, artificiality is one of their defining features» (Salen and Zimmerman 2004, p. 80). Thus, a fundamental characteristic of a game is the 'artificial' space within which it takes place and the relative position of the player in relation to that artificial space.

However, the physical objects that allow the conflict to develop are also artificial: many plays require specific materials to be played (a specific ball, cards, pieces, toys, an electronic device, etc.).

Artificiality also implies another fundamental aspect of play, which is its ability to simulate, to mimic reality. In fact, some plays are characterised by a setting that refers, in a more or less close form, to phenomena of reality (such as *Monopoly*, *Subbuteo* or *RisiKo!*, or «playing cowboys»), but others are totally abstracted from reality (such as *Jenga*, *Checkers* or *Draughts*, *Othello*).

Salen and Zimmerman's definition includes the idea of conflict[5], which must result in an outcome that depends on a quantifiable result, as a further intrinsic characteristic of the game. According to the aforementioned authors, in fact, «games have a quantifiable goal or outcome. At the conclusion of a game, a player has either won or lost or received some kind of numerical score. A quantifiable outcome is what usually distinguishes a game from less formal plays» (Salen and Zimmerman 2004, p. 80). Knowing who wins or loses, or if there is no conflict at all, is a fundamental

[5] «Conflict. All games embody a contest of powers. The contest can take many forms, from cooperation to competition, from a solo conflict with a game system to multiplayer social conflict. Conflict is central to the game» (Salen and Zimmerman 2004, p. 80).

point in choosing starting and playing a game, because it is closely linked to the number of players who are available to play at the time of the choice, but also to the overall player experience.

The classifications of games based on genre are innumerable; there are, however, a number of rather shared genres, depending on the mode or skill with which players act. Anyway, Caillois' classification is perhaps the only classification of games that has been universally accepted and has endured to this day. In this regard, Romina Nesti writes: «Caillois' work remains a fundamental text insofar as it succeeds in bringing order within the large number of attempts to catalogue [sic] the game that failed to meet criteria of univocity and clarity. The author gives us four categories determined through the predominant attitude enacted by the player himself during the chosen game» (Nesti 2012, p. 32).

The main genres identified in ClaG echo Caillois' classic classification proposal (Caillois 2001, p. 11-26), which, based on the player's attitude towards the game, includes: *agon* (struggle), *alea* (chance), *mimicry* (imitation) and *ilinx* (vertigo), defined summarily below.[6]

The *agon* genre includes all games characterised by the desire to win the competition that animates each player, due to their physical, mnemonic, linguistic, logical-mathematical ability, etc.: winning a game means proving to be more skilled at something than all the other players.

As most of the games currently classified at AIG are agonistic ones, a further subdivision principle of this class was needed. For this reason, games of the *agon* genre in ClaG were subdivided according to the guiding principle constituted by the skill that a game requires of a player to enable him to achieve the objective defined by the rules of the game. So, subclasses of *agon* genre are created according to the main or prevailing skill required by the player to win, which is then the characteristic on which the challenge underlying the game is based. With this principle, one can distinguish, for example, word and storytelling games, maths games, logic and deduction games, mazes and puzzles, bluffing games, etc. For the identification of the different skill types, ClaG relied on the theory of multiple intelligences proposed by Howard Gardner's *Formae mentis. An Essay on the Plurality of Intelligence*. According to Gardner, in fact, «an intelligence is the ability to solve problems, or to create products, that are valued within one or more cultural contexts» (Gardner 1987, p. 10). This definition of intelligence has the advantage of applying equally well to real situations and to fictitious situations created by the magic circle of a game. The relationship between multiple intelligences and game preferences on the part of regular players has been highlighted by a number of studies: in particular, Sajjadi, Vlieghe and De Troyer (2016) point

[6] For a deeper presentation, see chapter 5 of Bianchini and Munini (2024).

out that there is empirical evidence «that there is a correlation between intelligence dimensions and game preferences. This means that performance in certain domains of intelligence coincides with preferring or enjoying certain particular games more or less» (Sajjadi, Vlieghe and De Troyer 2016, p. 572). This preference surely applies also to players with diversity gaps, that can be overcame by the accurate choice of a game requiring a particular not-impaired skill.

A game can certainly be seen as a problem to be solved: the challenge posed in the game is certainly a problem (this is particularly evident in puzzles or brain-teasers) and must be overcome through recourse to one or more intelligences, in Gardner's sense, or skills, where skill means «the ability to perform a form of activity; [ability] differs from aptitude because the latter is original, innate, spontaneous, whereas skill, although it may develop as a result of natural disposition, is the result of will, exercise, and experience» (Istituto… 2024a).

The skills currently envisaged by ClaG are the following: intrapersonal skill, physical skill, social skill, language skill, logical-mathematical skill, mnemonic skill, musical skill, naturalistic skill and spatial skill. They make it possible to create as many classes, which can be further subdivided. The tree graph of subclasses according to genre in *Cla-G* is depicted in Figure 1.

It's worth to underline that while players engage a contest based on one of their main skills, the rules have the task to create a framework in which all the players have the same opportunities and chances to win. In this way, plays and games can be a very strong tool for inclusion and overcome of diversity among people.

The *alea* genre encompasses all games «that are based on a decision independent of the player, an outcome over which he has no control, and in which winning is the result of fate rather than triumphing over an adversary» (Caillois 2001, p. 17) and includes, of course, games of chance.

An example of a game of *alea* is *The Goose Game*, which relies only on the roll of dice. Every player has equal chances to win or to lose, independently from his/her skills. For this reason, this genre of game is a mighty tool of inclusion.

As Caillois (2001) notes, games of chance (*e.g.* gambling dens, casinos, races, lotteries, betting), unlike the rest of games, are not divorced from material interests. Gambling is in fact a recreational activity in which the aim is profit and in which winning or losing is predominantly at random, skill being of negligible importance.

The *mimicry* genre includes those ludic activities in which play «can consist not only of deploying actions or submitting to one's fate in an imaginary milieu, but of becoming an illusory character oneself, and of so behaving. […] Mimicry and travesty are therefore complementary acts in this kind of play» (Caillois 2001, pp. 19, 21).

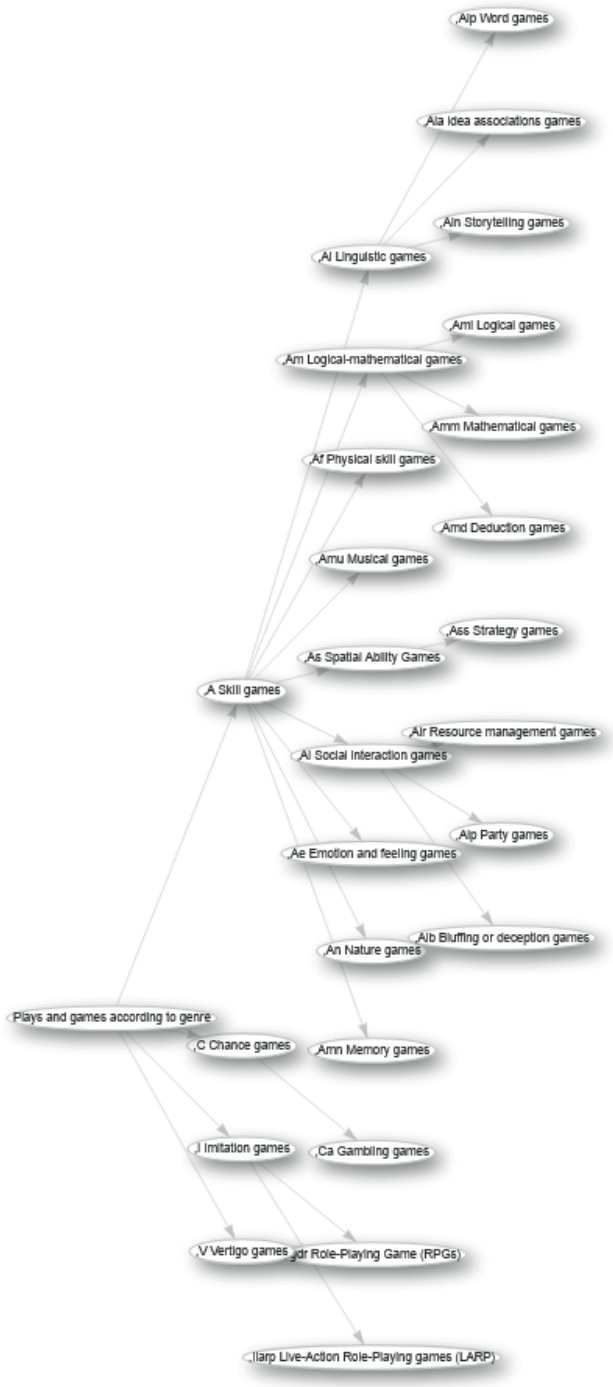

Fig. 1. Tree graph of subclasses of genre
Source: Author's creation. Available from: https://tinyurl.com/258qslym [accessed 2025-06-01]

According to Francesca Antonacci (2012), Caillois understands imitation games as

> *those games where one pretends, masks oneself, disguises oneself or simply plays a role or a character. They are all games in which we transform ourselves into something or someone that is different from us. Mimicry is the game of imitation, playing with dolls, games of interpretation (teacher, doctor), disguises and any more or less structured form of dramatization* (Antonacci 2012, p. 36).

The imitation game is the basis of an increasingly successful category of games, which is that of role-playing games (or RPGs): these are «narrative games in which players invent a collective story by identifying themselves as the protagonists under the guidance of a narrator. […] The game is entirely oral» (Angiolino and Sidoti 2010, p. 458).

The *ilinx* genre includes ludic activities

> *which are based on the pursuit of vertigo and which consist of an attempt to momentarily destroy the stability of perception and inflict a kind of voluptuous panic upon an otherwise lucid mind. In all cases, it is a question of surrendering to a kind of spasm, seizure, or shock which destroys reality with sovereign brusqueness* (Caillois 2001, p. 23).

The physical practices that provoke the feeling of vertigo, that provoke the perception of having taken our physique to the limit, are indeed widespread: acrobatics, the sensation of falling, throwing ourselves into the air (as parents do with young children), giddy spinning, sliding, speeding up a straight movement or combining it with a rotating movement.

Vertigo can also be found in forms of disorder and destruction (such as the bursting of firecrackers or bangs with carbide).

Examples of vertigo-inducing games are fairground rides, extreme sports or slides, swings and zip lines in playgrounds.

Beside space, materials, setting, outcome, and genre, which were spotted since the start of the design of ClaG, a very important suggestion came from the open presentation of ClaG draft to the public of experts and stakeholders in Spring 2024. Age was suggested as a relevant information in the choice of a play or a game during the reference service to the patrons of a library or a toy library. Age is highly relevant also in videogames, as a basic requirement for each product, and it is systematically included in instructions for use by publishers. Age is a very relevant tool for the assessment of the potential attitude of players towards a game and, for this reason, is a means of inclusion too.

4. BRIEF OVERVIEW OF THE CLASSIFICATION SYSTEM. THE SIX FACETS OF CLAG

Based on Salen and Zimmerman's definition discussed above, ClaG structures the description of plays and games around six core facets — space, materials, setting, outcome, genre, and age — each designed to reflect essential characteristics of how a game is played, understood, and experienced. These facets allow for detailed and flexible indexing that can support diverse search and discovery strategies, and enable the choice of a play or game based on specific educational or social goals.

1) Space. In ClaG, the first differentiation between the different types of plays is based on the analysis of the play space: «the game's domain is therefore a restricted, closed, protected universe: a pure space» (Caillois 2001, p. 7). Space is essential: «There is place for play: as needs dictate, 'the space for hopscotch, the board for checkers or chess, the stadium, the racetrack, the list, the ring, the stage, the arena, etc. Nothing that happens outside this ideal boundary is to be taken into account. Leaving the established area by mistake, by chance or by necessity, sending the ball beyond the field, sometimes disqualifies the player, sometimes results in a penalty» (Caillois 2001, p. 6). The playing space is, together with the playing time, one of the two fundamental components of the «magic circle», the parallel and artificial world in which it is the game that is real and from which reality, on the other hand, is excluded. Stefano Bartezzaghi also shares the idea that play space is a suitable criterion for classifying games; in fact, he states that: «a parameter for classifying games could be the physical place where players meet» (Bartezzaghi 2024, p. 20). In ClaG, space is referred to the spatial position of the player with respect to the magic circle (the time-space world in which the play or game happens); the player can be inside the playground, outside the playground, or the magic circle can be fully inside the mind of the player. Examples of different spaces are: free-field games (*e.g. Hide and seek*), games with a regulated field on terrain (*e.g.*: *Badminton*, *Football*), table top games without other support (*e.g.*: *Dominoes*, *Mahjong*, *Uno*), board games (*e.g.*: *Chess*, *Othello*, *Monopoly*), games with imaginary arenas (*e.g.*: gamebooks or videogames). This facet strongly supports inclusiveness, because it accounts for spatial accessibility and play setting.
2) Materials. The term 'materials' is used to refer to «the set of all object necessary to play a game. In a given game, materials may or may not be present, and can be anything» (Angiolino and Sidoti 2010, p. 604). For the purposes of game classification, in the case of several materials, the main, or most important, or prevalent (in quantitative terms) material is to be taken into

account. This class captures the physical or digital elements required: cards (traditional or special ones), dice (traditional or special ones), tiles, boards, paper-and pencil games, toys, balls, marbles, pieces and tactile elements, or screens. Of course, not all games require materials: games without materials are, for example, *Hide and Seek*. This facet facilitates inclusive classification for different sensory or motor abilities, aiding the discovery of games appropriate for visually or otherwise impaired users, non-digital settings, or hands-on learning.

3) Setting. The setting is the «subject of the game, evoked by the materials and rules» (Angiolino and Sidoti 2010, p. 36). With respect to setting, ClaG stipulates that games can fall into one of these three classes: non-set games (*e.g. Othello*), set games (*e.g. Monopoly*) and simulation games (*e.g.* flight simulators). The settings are innumerable; by way of example, games already exist with the following settings: North America, Ancient China, Ancient Rome, Ancient Egypt, Asia, Celtic Civilisation, Horse Racing, Culinary, Health Emergencies, 14th Century Europe, 17th Century Europe, Science Fiction, Fantasy, Finance, Japan, Middle Ages, Mystery, Nature, Prehistory, Renaissance, Venice, Travel, etc. Potentially, any subject or theme can become the setting or context of a game. Therefore, in the future it could be useful to provide an additional specific classification to define each possible setting (*e.g.* by means of the addition of DDC notation)[7]. As Claudio Gnoli points out, «this is a beautiful example of what Douglas Foskett wrote (concerning general and special classifications, International Classification 18: 1991, no. 2, p. 87-91): even special classifications always need to refer to concepts outside their domain» (Gnoli 2024). Subjects of games are very relevant for the selection of a game, especially for teachers and educators who desire to utilize plays and games as educational tools for a specific topic. Moreover, this is crucial for selecting games based on social-emotional learning goals, therapy needs, or user preferences.

4) Outcome. The term 'outcome' indicates what conclusion is expected at the end of the game. Who wins? Who loses? What is the overall purpose of the game experience? However, the scope of ClaG also extends to plays, *i.e.* non-competitive activities with no winner or loser. So, from this point of view, plays and games can be classified as solitaire (*e.g. Rush Hour*), with one winner (*e.g. Risiko!*), with one winning team (*e.g.*: *Lupus in tabula* and *Taboo*), co-operative (*e.g.*: *Pandemia*, *Zombicide*), semi-cooperative (*e.g.*

[7] At present, a deeper classification by subject does not seem to be needed, as the largest class created includes just four games; moreover, they are non-set games. Query available at: https://tinyurl.com/27fvyju8 [accessed 2025-06-01].

Arkham Horror), with one loser (*e.g.*: *Blind man's bluff, Hide and Seek*), and without winner or loser (*e.g. Rory's Story Cubes*). As easily understandable, outcome is a highly relevant characteristic for inclusion and diversity, because it focuses on competition vs cooperation, and enable the choice of activities such as open-ended storytelling or team building games, to reach experiential or therapeutic goals. This facet broadens the idea of play to include creative, process-oriented, and developmental play forms.

5) Genre. As largely discussed above, there are four main classes of genre defined by Caillois, based on the player's attitude towards the game (skill, chance, imitation, and vertigo games), and the most part of subclasses belongs to skill games, which are the most common ones. As to win or play a game is usually required a main, most important or prevailing skill, the choice of a specific genre of game can remark or hide diversity in players, and can be an easy but effective way to promote inclusion.
6) Age. It represents the suggested minimum age for the player(s). The assessment of the correct age to play a game is highly subjective — it can even be different in two publishers' edition of the same game — but age can be an extremely discriminating factor during the reference transaction between the person in charge of a game collection and the player(s) asking for help in identifying and choosing a game(s) to use. For these reasons, age was included in ClaG, but it must be determined solely on the basis of a few external sources, which are free and authoritative internationally or nationally, starting from *BoardGameGeek* (Board… [2010-2025]). The presence of age in the classification system allows for lifespan inclusivity, supports correct management of games for early childhood, intergenerational play, or elderly users and aligns with developmental or pedagogical goals.

These six facets, used in combination, allow for a multidimensional, user-sensitive classification system that enhances both classification precision, reference service, and user navigation.

5. INCLUSION AND DIVERSITY CONSIDERATIONS

ClaG offers a useful tool for the player who wants to choose a game for themselves, and at the same time provides the toy librarian and the librarian with a step-by-step path to follow when the player requires assistance in choosing a game. ClaG imagines a scenario involving one or more players who want to play, meeting outdoors, or in an enclosed space, or in a playroom or toy library. The choice of game will depend on several competing factors: the climate (*e.g.*: is it too cold or too hot to play

outdoors?), the available space (*e.g.*: is it big enough and articulated enough to play *Hide and Seek*?), the available resources (*e.g.*: do you have a ball or a pack of cards, or nothing?), the number of participants (*e.g.*: are you alone, two, or enough to form teams?), but especially the skills — physical, psychological, intellectual, cultural, etc. — and the age of the players.

During the reference transaction[8] between the toy librarian or librarian and the player or group of players, the interaction takes place in which the former initiates an interview in order to clarify, thanks to the players' answers, what characteristics of the play activity they are looking for. ClaG's facets — space, materials, setting, outcome, genre, and age — will be precisely the starting point of the guiding questions for the reference interview.

As seen above, any facet can effectively help in avoiding diversity gaps in the player(s) and in promoting inclusion of players with different gender, age, physical, social or intellectual skills and cultural background.

One of ClaG's most notable contributions is its explicit integration of inclusive design principles into classification logic. The system:

- Makes room for non-traditional and therapeutic forms of play, which are often overlooked in standard cataloguing;
- Supports cultural inclusion by enabling classification based on genre and narrative representation, increasing visibility of non-Western, indigenous, or underrepresented themes in play;
- Avoids stigmatizing or reductive labelling, especially for games used in therapy or special education, focusing instead on the game's contexts, contents, outcomes, affordances, and objectives.

Features enabling tagging based on accessibility features, such as sensory input types based on materials facet or cognitive load based on genre facet, thereby assisting in selecting games suitable for users with disabilities or special educational needs are also available.

Through this framework, ClaG helps institutions design play collections that reflect user diversity and accommodate a broad spectrum of abilities, cultures, and learning styles.

CONCLUSIONS

The ClaG system represents a significant advancement in management of games and play collections in toy libraries and libraries. Moreover, it challenges the marginal

[8] On the reference transaction, the literature is vast. By way of example, and for an initial in-depth study, please refer to: Katz (2002); American… (2008-2021).

status games have often held in library collections and reframes them as legitimate, information-rich cultural objects.

In conclusion, the authors affirm that:

- ClaG empowers libraries and toy libraries to provide structured, meaningful access to games for all users.
- It establishes a precedent for recognizing the complex, multifaceted nature of games within library context.
- The system promotes equity and representation, aligning information science practice with inclusive education and cultural diversity.

ClaG is thus both a technical tool and a cultural proposal — a call to recognize and support the richness of play as a vehicle for learning, inclusion, and social engagement.

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