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A WEARABLE HAPTIC GAME CONTROLLER

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ABSTRACT

This paper outlines the development of a wearable game controller incorporating vibrotacticle haptic feedback that provides a low cost, versatile and intuitive interface for controlling digital games. The device differs from many traditional haptic feedback implementation in that it combines vibrotactile based haptic feedback with gesture based input, thus becoming a two way conduit between the user and the virtual environment. The device is intended to challenge what is considered an “interface” and draws on work in the area of Actor-Network theory to purposefully blur the boundary between man and machine. This allows for a more immersive experience, so rather than making the user feel like they are controlling an aircraft the intuitive interface allows the user to become the aircraft that is controlled by the movements of the user's hand. This device invites playful action and thrill. It bridges new territory on portable and low cost solutions for haptic controllers in a gaming context.

KEYWORDS

Wearable Computing, Haptic Devices, Vibrotactile Feedback, Actor-Network Theory, Game Controllers, Tangible Interfaces.

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A CHARACTERIZATION OF THE EGALITARIAN CORRESPONDENCE IN THE CONTEXT OF BARGAINING PROBLEMS

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ABSTRACT

In this note we provide a characterization of the egalitarian correspondence in the context of bargaining problems. The characterization is based on bilateral consistency, contraction and expansion independence.

KEYWORDS:

Egalitarian correspondence, Bargaining problems.

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APPLICATION OF THE WAR OF ATTRITION GAME TO THE ANALYSIS OF INTELLECTUAL PROPERTY DISPUTES

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ABSTRACT

In many developing countries intellectual property infringement and the commerce of pirate goods is an entrepreneurial activity. Digital piracy is very often the only media for having access to music, cinema, books and software. At the same time, bio-prospecting and infringement of indigenous knowledge rights by international consortiums is usual in places with high biodiversity. In these arenas transnational actors interact with local communities. Accusations of piracy often go both ways. This article analyzes the case of southeast Mexico. Using a war of attrition game theory model it explains different situations of intellectual property rights piracy and protection. It analyzes different levels of interaction and institutional settings from the global to the very local. The article proposes free IP zones as a solution of IP disputes. The formation of technological local clusters through Free Intellectual Property Zones (FIPZ) would allow firms to copy and share de facto public domain content for developing new products inside the FIPZ. Enforcement of intellectual property could be pursuit outside of the FIPZ. FIPZ are envisioned as a new type of a sui generis intellectual property regime.

KEYWORDS

Common-pool resources, cultural industries, digital divide, information commons, intellectual property, war of attrition.

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A COMPARISMOF THE PERFORMANCE OF SUPERVISED AND UNSUPERVISED MACHINE LEARNING TECHNIQUES IN EVOLVING AWALE/MANCALA/AYO GAME PLAYER

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ABSTRACT

Awale games have become widely recognized across the world, for their innovative strategies and techniques which were used in evolving the agents(player) and have produced interesting results under various conditions. This paper will compare the results of the two major machine learning techniques by reviewing their performance when using minimax, endgame database, a combination of bothtechniques or other techniques, and will determine which are the best techniques.

KEYWORDS

Awalegame, Supervised, Unsupervised, Minimax, Endgame

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APPLICATION OF RISK DOMINANCE CONCEPT AND BAYESIAN NASH EQUILIBRIUM FOR ANALYSIS OF RECENT GEOPOLITICAL TENSION BETWEEN NORTH AND SOUTH KOREA

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ABSTRACT

Recent threats of hydrogen bomb test from North Korea were unexpected, as the relationship between South and North Korea was known to be improving. Here, Nash equilibrium and the concept of risk dominance will be used to describe the general diplomatic strategy between North Korea and South Korea and to account for North Korea's constant provocations. Then Bayesian Nash equilibrium will be applied to suggest policy lines specifically after the current hydrogen bomb test conducted by North Korea. Here, how rational thinking will lead both Koreas to continue on with the Hard-line measure towards each other will clearly be shown. At conclusive remarks, other possible diplomatic approaches to the volatile geopolitical landscape of East Asia will be suggested.

KEYWORDS

Game theory, risk dominance, Nash equilibrium, Bayesian Nash equilibrium, diplomatic approaches.

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MULTIMEDIA CONTENT DOWNLOADING IN VANET WITH DENSITY MEASUREMENT

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ABSTRACT

The presence of Internet-connected navigation systems is becoming a truth that will easily lead to a significant growth in bandwidth demand by in-vehicle users like mobile user. For example the applications of vehicular communication proliferate, and range from the updating of road maps to the repossession of nearby points of interest, downloading of touristic information and multimedia files. This content downloading system will induce the vehicular user to use the resource to the same extent as today's mobile customers. By this approach communicationenabled vehicles are paying attention in downloading different contents from Internet-based servers. We summarize the performance limits of such a vehicular multimedia content downloading system by modeling the content downloading process as an effective problem and developing the overall system throughput with density measurement. Results highlight the methods where the Roadside access point deployment based upon the density of vehicles, which mean that they are working at different capabilities irrespective of vehicle density, the vehicle- tovehicle relaying.

Keywords

Vehicular ad-hoc Network, Multimedia Content Downloading Process, Max-flow problem, Optimization, Vehicular Density measurement.

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COOPERATION AND THE CARBON TRADING GAME: A SYSTEM DYNAMICS APPROACH TO THE PRISONER'S DILEMMA

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ABSTRACT

Warm mix asphalt has been introduced in Europe in 1997 and in the United State 2002. The first trail of warm mix asphalt has done publically in Europe in 1999, in U.S.A 2004 and in India 2009. Most of countries like Germany, Norway, France, U.S.A, Canada, China, Korea, South Africa, India and Brazil have successfully used the WMA construction on public roads after successful laboratory test. The WMA is more success in U.S.A compare to European countries (EAPA, 2014). The main goal of WMA is to produce the bituminous mixtures with similar strength, durability and performance characteristics as HMA substantially reduced the mixing and compaction temperature. The danger of people or nations misunderstanding each other's has been of great interest in the study of cooperation (Akerlof, 1997). A very important question on climate negotiations is how errors in perceptions or implementation can affect agreements and create conflict. Noise, in the form of random errors in implementing a choice, is a common problem in real-world climate interactions with consequences on GHGs emissions. The paper shows a system dynamics model that simulates national interactions on climate negotiations with noise from emissions information. It shows the role of information policies in reducing GHGs emissions. It tackles the question of which kinds of data shall be considered a "global public goods" and how to eliminate noise.

Keywords climate change, system dynamics, game theory, negotiation, cooperation.

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USE OF JAMMER NETWORK TO DETECT DENIAL OF SERVICES ATTACK IN WIRELESS NETWORK

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ABSTRACT

The most important aspect of network is to share the data from one to another. It can either wired or wireless. Both networks provides similar kind of security only. The internet users can have experience of denial of services attack for hacking the data, to avoid the such a hacking provides many techniques to resolve the problem. The jammer is an electronic device used to distrupt the communication. The jammer is made of large number of tiny low power distributed jammer. Use of jammer to avoid the hacking of data. In a network the node setup purpose uses they percolation concept. Based on the network, jammer, performance are evaluated. Finally provides the results in simulation tool such as NS2.

KEYWORDS

Network, Distrupt, DoS, Jammer, Percolation

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STRATEGIC PAYOFFS OF NORMAL DISTRIBUTIONBUMP INTO NASH EQUILIBRIUMIN 2 × 2 GAME

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ABSTRACT

In this paper we assume that strategic payoffs are Normal distribution, and discuss how the parameters of Normal distributions affect the NE payoff distribution that is also concerned by players. We find that distortions of NE payoff distributions are dominated by the distance between variances of strategic payoffs in small means cases and the variances of the dominantly strategic payoffs in large means case. We also find that the variances of strategic payoffs lead to the higher means of the NE payoff distributions, which contain risk premium and the dominantly strategic payoffs, whatever the means of strategic payoffs. However, compared with the dominant strategy that is NE of static game, our model obtains that the mean magnitudes of strategic payoffs lead to establish the different rade-off relationship between means and variances of the NE payoff distribution in the decision-making process.

Keywords

Nash equilibrium, distributed payoff, uncertainty, decision-making process

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