**Information and Communication Systems** **(con esercitazioni di Analytics e strumenti di rilevazione dell’audience dei media digitali)**

## Prof. Matteo Tarantino

# Information and Communication Systems and elements of teaching strategies (con esercitazioni di Metodologia e tecnologie didattiche per la comunicazione e i media)

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***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to provide students with the key concepts to understand, create, and use information and communication systems, conceived as a way to coordinate digital and analogical platforms and technologies. It will also include a single-subject course focused on digital communication in China, and the ‘Analytics and audience measurement in digital media’ practical activities. Furthermore, during the course, students will be asked to carry out a project work (either individually or in groups).

*INTENDED LEARNING OUTCOMES*

Knowledge and understanding

At the end of the course, students will be able to: understand the structure and the functioning of complex information and communication systems; identify the investment mechanisms adopted by stakeholders; understand the role and the function of environmental communication systems; understand the paradigm at the basis of datafication, and its possible applications; understand the role and the impact of the orientation tools based on algorithms, with a focus on recommender systems; identify the structural processed at the basis of the Chinese digital communication industry.

Ability to apply knowledge and understanding

At the end of the course, students will be able to: create plans based on complex information and communication systems; use the most appropriate monitoring tools; select and adopt the best automation strategies to achieve specific communication goals.

***COURSE CONTENT***

1. Key concepts: convergence, platform, system, content, and resources. Innovation theories.
2. Information and communication system economics: the sustainability of cross-platform systems.
3. Information and communication system economics: the relationship between social media and small and medium-sized enterprises.
4. Data. Data value, collection, and management. Data flows, databases, and API. The different approaches towards the datafied society. The data/institution/user relationship.
5. The sustainability of a system. Multi-stakeholder models. The interpretation of the relationship between investments and incomes.
6. The content: the relationship between designed and user generated content. Conflict management. User communities.
7. The role played by cultural variables. Culture and digital technology. The digital world in China.
8. Complex communication systems: the communication of environmental risks.

***READING LIST***

S.F. Wamba & L. Carter*. Social media tools adoption and use by SMEs: An empirical study*. In Social media and Networking: Concepts, methodologies, tools, and applications (p. 791-806). 2016.

McCann, M., & Barlow, A. *Use and measurement of social media for SMEs.* Journal of Small Business and Enterprise Development, 22(2), 273-287. 2015.

G. Adomavicius & A. Tuzhilin. *Toward the next generation of recommender systems: A survey of the state-of-the-art and possible extensions*. IEEE Transactions on Knowledge & Data Engineering 6 (2005): 734-749.

H. Wickham, *Tidy Data,**Journal of Statistical Software, 59*(10), 1 - 23. doi:<http://dx.doi.org/10.18637/jss.v059.i10>

N. Marres, E. Weltevrede, *Scraping the Social? Issues in live social research*. Journal of Cultural Economy, 6(3), p. 313-335. Goldsmiths Research Online. ISSN 1753-0350.

M. Tarantino. *In The Air Tonight: Communicating Urban Air Pollution*, in Z. Krajina & Stevenson (edited by) The Routledge Companion to Urban Media and Communication, Routledge, New York (2019).

For Italian-speaking students:

M. Tarantino. *Il tecno-dragone: L’Immaginario Tecnologico Cinese Ieri, Oggi e Domani*

 Milan, Vita & Pensiero. 2019

For international students:

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M. Tarantino. *The Multiple Airs: Pollution, Competing Digital Information Flows and Mobile App Design in China*. In J. Diaz-Pont et al. (edited by): The Local and the Digital in Environmental Communication. Palgrave McMillan, 2020.

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M. Tarantino. *Navigating a datascape: challenges in automating environmental data disclosure in China*. Journal of Environmental Planning and Management. 63.1. 2019.

***TEACHING METHOD***

Frontal lectures, based on the presentation and discussion of papers.

***ASSESSMENT METHOD AND CRITERIA***

1) Students will be asked to present the summaries of the readings assigned by the lecturer. The mark will be expressed in thirtieths. Assessment criteria: the quality, clarity, and relevance of the presentation. Non-attending students (that is to say, those attending less than 75% of the course) will have to submit to the lecturer the written summaries mentioned above. This task will determine 20% of the final mark.

2) At the end of the course, students will also have to submit to the lecturer the output of their project, including a functioning demo and a paper explaining the objectives, the goals, the budget, and the expected outcomes. Assessment criteria: the effectiveness, creativity, and sustainability of the project. This task will determine 40% of the final mark.

3) Finally, students will have to take a written test based on the reading list mentioned above (40% of the final mark). It will consist in 10 closed-ended and 2 open-ended questions. Assessment criteria: the accuracy and the relevance of the answers.

4) In the assessment of the practical activities, students can get from -2 to +2 points, that will contribute to the definition of the final mark.

***NOTES AND PREREQUISITES***

Students should have a good knowledge of the English language; a basic knowledge of the theories based on the study of communication systems; a basic understanding of the key concepts of the subject, such as the nature and the function of algorithms, the distinction between data, information, and knowledge, and between source and executable code.

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG or on the Faculty notice board.

# Esercitazioni di Analytics e strumenti di rilevazione dell’audience dei media digitali

## Dott. Davide Carbonini

***OBIETTIVO DEL CORSO E RISULTATI DI APPRENDIMENTO ATTESI***

L’esercitazione si pone l’obiettivo di mostrare e spiegare il funzionamento del principale software di rilevamento statistico per il monitoraggio del traffico su siti web o applicazioni mobile: Google Analytics.

L’obiettivo della prova scritta a conclusione dell’esercitazione è la produzione, da parte di ogni studente, singolarmente, di un approfondito report scritto che contenga le informazioni necessarie e sufficienti per illustrare ed argomentare i dati rilevati.

Gli studenti saranno quindi chiamati a redigere un documento da presentare ad un cliente fittizio, esattamente come se fossero loro stessi fornitori di servizi di web analysis.

***PROGRAMMA DEL CORSO***

L’esercitazione è divisa in 2 parti:

a) Introduzione e allineamento competenze tecniche finalizzate alla comprensione dei dati che il software

rileva

b) Formazione all’uso del software “Google Analytics”

***DIDATTICA DEL CORSO***

La prima parte dell’esercitazione si svolge in modalità tradizionale mediante lezione frontale. Successivamente si procede presso il laboratorio informatico della Facoltà.

***METODO E CRITERI DI VALUTAZIONE***

La valutazione viene attribuita secondo diversi criteri:

● comprensione delle informazioni trasmesse durante le lezioni circa il funzionamento del software e le modalità di interpretazione dei dati da esso forniti

● impegno, ed attinenza a quanto trasmesso, nella rielaborazione autonoma di tali informazioni ai fini della produzione di un report scritto

● qualità grafica, ortografica e contenutistica del report prodotto da ogni studente

Il punteggio assegnato è in trentesimi, dove 18 indica la sufficienza.

***AVVERTENZE E PREREQUISITI***

Per legittimare la frequenza sono richieste almeno la metà + 1 ora di presenza (almeno 11 ore).

Per gli alunni che non frequenteranno le lezioni in diretta saranno disponibili le lezioni preregistrate.

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## Prof. Matteo Tarantino

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to provide students with the key concepts to understand, create, and use information and communication systems, conceived as a way to coordinate digital and analogical platforms and technologies. In particular, during the course, students will be asked to carry out a project work proposed by the lecturer. It will also include the ‘Teaching strategies and methodologies for communication and media’ practical activities.

*INTENDED LEARNING OUTCOMES*

Knowledge and understanding

At the end of the course, students will be able to: understand the sociological and economic dynamics at the basis of innovation; understand the structure and the functioning of complex information and communication systems; identify the investment mechanisms adopted by stakeholders; understand the role and the function of environmental communication systems; understand the paradigm at the basis of datafication, and its possible applications; understand the role and the impact of the orientation tools based on algorithms, with a focus on recommender systems.

Ability to apply knowledge and understanding

At the end of the course, students will be able to: create plans based on complex information and communication systems; identify the vulnerable points of these systems; use the most appropriate monitoring tools; select and adopt the best automation strategies to achieve specific communication goals; create teaching strategies related to communication.

***COURSE CONTENT***

1. Key concepts: convergence, platform, system, content, and resources. Innovation theories.
2. Information and communication system economics: the sustainability of cross-platform systems.
3. Information and communication system economics: the relationship between social media and small and medium-sized enterprises.
4. Data. Data value, collection, and management. Data flows, databases, and API. The different approaches towards the datafied society. The data/institution/user relationship.
5. The sustainability of a system. Multi-stakeholder models. The interpretation of the relationship between investments and incomes.
6. The content: the relationship between designed and user generated content. Conflict management. User communities.
7. The role played by cultural variables. Culture and digital technology. The digital world in China.
8. Complex communication systems: the communication of environmental risks.
9. **The course will also illustrate topics related to the teaching of Communication theories and techniques. In addition, students will have to attend the ‘Teaching strategies and methodologies for communication and media’ workshop, that will be held in Italian.**

***READING LIST***

S.F. Wamba & L. Carter*. Social media tools adoption and use by SMEs: An empirical study*. In Social media and Networking: Concepts, methodologies, tools, and applications (p. 791-806). 2016.

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***ASSESSMENT METHOD AND CRITERIA***

1) Students will be asked to present the summaries of the readings assigned by the lecturer. The mark will be expressed in thirtieths. Assessment criteria: the quality, clarity, and relevance of the presentation. Non-attending students (that is to say, those attending less than 75% of the course) will have to submit to the lecturer the written summaries mentioned above. This task will determine 20% of the final mark.

2) At the end of the course, students will also have to submit to the lecturer the output of their project, including a functioning demo and a paper explaining the objectives, the goals, the budget, and the expected outcomes. Assessment criteria: the effectiveness, creativity, and sustainability of the project. This task will determine 40% of the final mark.

3) Finally, students will have to take a written test based on the reading list mentioned above (40% of the final mark). It will consist in 10 closed-ended and 2 open-ended questions. Assessment criteria: the accuracy and the relevance of the answers.

4) In the assessment of the practical activities, students can get from -2 to +2 points, that will contribute to the definition of the final mark.

***NOTES AND PREREQUISITES***

Students should have a good knowledge of the English language; a basic knowledge of the theories based on the study of communication systems; a basic understanding of the key concepts of the subject, such as the nature and the function of algorithms, the distinction between data, information, and knowledge, and between source and executable code. Furthermore, they are invited to bring their personal computer in class.

In order to be considered as attending students, it is necessary to attend at least half of the course + 1 hour (that is to say, at least 11 hours).

Non-attending students will have the possibility to watch the recordings of the lectures.

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG or on the Faculty notice board.

# Esercitazioni di metodologia e tecnologie didattiche per la comunicazione e i media

## Dott.ssa Roberta Bova

***OBIETTIVO DEL CORSO E RISULTATI DI APPRENDIMENTO ATTESI***

L’esercitazione si propone di individuare e problematizzare specifici contesti e strumenti applicativi per la didattica. La comunicazione e i media saranno pertanto sia il luogo, sia l’oggetto del lavoro. L’obiettivo è quello di rendere evidenti alcuni elementi costitutivi dell’agire didattico, che nell’uso quotidiano rimangono inavvertiti e non discussi. Tale esercizio consente di scoprire nel contesto didattico nuovi angoli di visuale e nuovi modi di manipolare e combinare gli oggetti e le tecniche.

***PROGRAMMA DEL CORSO***

Introduzione: la terminologia come oggetto di lavoro: tecnologia, metodologia, didattica, comunicazione, media.

Tecnologia: *techné* + *logos*; il discorso della tecnica; tecnica, arte, artificio; strumento e *tool.*

Gli strumenti della didattica: la scuola e gli arredi scolastici, la scrittura.

Gli strumenti umani: gli alunni, gli insegnanti, il *setting*.

***BIBLIOGRAFIA***

Ivan Illich, Celebrare la consapevolezza, Neri Pozza 2020.

Testo aggiuntivo per i non frequentanti (cfr. sotto): Norbert Elias, John L. Scotson, Strategie dell’esclusione, il Mulino 2004.

***DIDATTICA DEL CORSO***

Lezioni frontali

***METODO E CRITERI DI VALUTAZIONE***

L’esercitazione prevede una valutazione finale sulla base di un elaborato scritto (10mila battute circa) prodotto dagli studenti assegnato dal docente esercitatore; nell’elaborato gli studenti affronteranno un’esperienza didattica sulla base di quanto appreso nel corso. Gli studenti che non avranno preso parte ad almeno il75 % delle lezioni verranno considerati *non frequentanti*; per costoro, l’elaborato sarà da intendere come recensione dei due volumi assegnati (10mila battute circa). La valutazione si concluderà con l’assegnazione di un voto in trentesimi.

***AVVERTENZE E PREREQUISITI***

Trattandosi di un’esercitazione breve, si raccomanda se possibile una frequenza piena. Non sussistono prerequisiti.

*Orario e luogo di ricevimento degli studenti*

Il docente esercitatore riceve gli studenti direttamente durante le esercitazioni.