Негосударственное образовательное учреждение высшего образования
«Школа управления СКОЛКОВО»

Утверждено
ректор С.С. Писарев
_____
«29» августа 2024 г.

РАБОЧАЯ ПРОГРАММА ДИСЦИПЛИНЫ
История и философия автоматизации/History and Philosophy of Automation

Направление подготовки	38.03.02 Менеджмент
Квалификация выпускника	Бакалавр
Образовательная программа	Управление и предпринимательство
Форма обучения	Очная
Рабочая программа дисциплины разработана	Devin Mitchel

Трудоемкость		Контактная работа		Самостоятельная работа	Форма контроля	Семестр/квартиль
з.е.	часы	лекции	семинарские занятия			
3	108	24	24	60	Экзамен	3/1

Москва
2024

1. АННОТАЦИЯ ДИСЦИПЛИНЫ

The object of cultural techniques sounds innocuous at first: we know well that culture is a series of practices and sites of attachment defined by the fact that they have meaning to those who are 'part of' a given culture. Indeed, we call 'culture shock' an experience with a set of practices or objects which we understand should have meaning but which, for the present moment, escape our common sense. And indeed, if this holds, to speak of 'work culture' is simply to speak of a set of practices and sites of attachment which are consistent among all places of work, varying only (1) in the precise meaning given and (2) in the practices or sites attached to that meaning.

It may come as a different kind of culture shock, then, that Bernhard Siegert, German media theorist, specifies the object of cultural techniques thusly: "the abyss of nonmeaning in and from which media operate." This turn to "nonmeaning" as a primary object is, for our purposes, a timely opportunity to reframe the question of work culture and thus to newly understand its stakes. Siegert's contention is that if, as scholars, we cannot simply presuppose our object—nor assume that it has a consistent set of conditions that simply vary in their content but not in their structure—then we cannot begin with or assume we 'have' workplace culture. For our purposes, this also means that we cannot understand cultural difference between different national workplaces and historical periods of work as variations in culture.

Rather, the contention and object of this module will be to examine how the place of culture itself is constructed technologically. In some historical periods and national configurations, culture is an interruption to the operations of the working day. In others, culture is something that workers bring from without as value-added. In others still, culture is something determined by management as a univocal and coherent organizational system, later 'absorbed' (or not) by the worker. Asking about the construction of culture (rather than presupposing it) allows for a much more meaningful comparative approach, one which will allow us to think transversally across different historical periods and regional sites of work.

How does one take a constructivist approach to the study of culture? Or, put differently, if culture is what allows us to make meaning, and, in allowing us to make meaning, remains itself in the background of our language, critical thinking, and common sense, how can we bring it into view as a critical object? The question with any forensic project is how we have access to the materials we use to stake our claims. If we say that culture is a system of meaning (and therefore what allows a participant of a given culture to reflect on that culture) then we also have to ask how we can critically reconstruct these relationships between workplace and culture. The study of cultural techniques answers this question by approaching technologies (which includes practices and 'techniques') as storage media.

If we want to understand workplaces in which culture appears as an interruption to the practice of work, we only need look at the configuration of the assembly line and the actual technologies it consists of: these wrest control of the pace of production from the worker, break up the ability of the worker to participate in the 'organic whole' (or total project) of the production process and substitute this for piecework. Likewise, if we are working at the exact opposite end and studying globalization today, where the workplace becomes a gigantic container that benefits from the value-added of all different types of endogenous cultures, then we ground this in the study of the computer and its relationship to difference (i.e. we look at the computer as a universal machine that is supposed to subsume the functioning of all others as differences in degree that can be deployed within a single system).

Throughout this six-day module, students will familiarize themselves with a variety of approaches towards the study of technology, with a particular emphasis on the ways in which technology functions as cultural infrastructure. Readings for this course are primarily based in the philosophy of technology and media studies. This is deliberate: inasmuch as what we lack

is a language for the construction of culture, these six days will be spent developing an idiom that allows students to later approach sites of work and technologies not explicitly discussed in class.

2. ПЛАНИРУЕМЫЕ РЕЗУЛЬТАТЫ ОСВОЕНИЯ ДИСЦИПЛИНЫ

This discipline will give students the vocabulary and analytical tools to discuss the functioning and impact of technology in any era. This comparative approach will allow students to understand multiple histories of technological development and different ways in which various cultures employ technologies.
Students will learn to consider theories of technological development from the basis of their regional, historical, and cultural specificity. Students will be able to comprehend the uneven globalization of digital technologies and the way in which certain new media become “organizing forms” for other, older media.

В случае успешного освоения курса студенты будут:

знать

- recent approaches to the study of digital media, social media, communication technologies, the transmission of information, and the construction of meaning;
- analytical tools to distinguish between the functions of any given technology and the mechanisms through which those functions are accomplished.

уметь

- demonstrate, in their research, the important role of chosen technology on the cultural or regional site they have studied;
- identify the relationship between their topic of study and its technological implications. Use this analysis of technological implications to intervene on their interdisciplinary research.

владеть

- methods and approaches of media used to understand workplace interventions of specific technologies and the wider role of technologies adopted globally;
- how to employ multiple disciplines (cultural studies, science and technology studies, media studies, history of technology) in order to make holistic arguments about the impact that technology has on culture.

Дисциплина направлена на развитие следующих компетенций и их индикаторов:

Код компетенции	Формулировка компетенции и/или ее индикатора (ов)
УК-5.	Способен воспринимать межкультурное разнообразие общества в социально-историческом, этическом и философском контекстах
УК-5-1.	Демонстрирует уважительное отношение к культурно историческому наследию и социокультурным традициям различных социальных групп, опирающееся на знание этапов исторического развития России, основных событий в мировой истории, культурных традиций мира, включая мировые религии, философские и этические учения
УК-5-2.	Владеет навыками продуктивного взаимодействия в профессиональной среде с учетом национальных, этнокультурных, конфессиональных

	особенностей; навыками преодоления коммуникативных, образовательных, этнических, конфессиональных и других барьеров в процессе межкультурного взаимодействия

3. СОДЕРЖАНИЕ И СТРУКТУРА ДИСЦИПЛИНЫ

Название раздела/темы	Всего часов	Трудоемкость (час.) по видам учебных занятий			
		Контактная работа			Самостоятельная работа
		Всего	Лекции	семинары	
Тема 1. Deconstructing Work/Culture | Cultural Techniques Pt. 1	12	8	4	4	4
Тема 2. Cultural Techniques Pt. 2: Nonsense, Meaning, Information	12	8	4	4	4
Тема 3. Immiseration and the Automative Moment	12	8	4	4	4
Тема 4. Cybernetics' Promises: Assemblage, System, Organization, or Individual?	12	8	4	4	4
Тема 5. The Problem of Performativity and the Universal Machine	12	8	4	4	4
Тема 6. Accelerationism or Culture off the Rails	12	8	4	4	4
Итого	72	48	24	24	24

Topic 1. Deconstructing Work/Culture | Cultural Techniques Pt. 1
Exercise: Opening the Gap Between Work and Culture
Topic 2. Cultural Techniques Pt. 2: Nonsense, Meaning, Information
Exercise: How Can Technology Appear to Us?
Topic 3. Immiseration and the Automative Moment
Case Study: The Assembly Line

Topic 4. Cybernetics' Promises: Assemblage, System, Organization, or Individual?
Case Study: Paper Computers
Topic 5. The Problem of Performativity and the Universal Machine
Case Study: 'Real' Computers and their Interventions on 'the Real'
Topic 6. Accelerationism or Culture off the Rails
Case Study: "Mechanization Takes Command"

4. ОЦЕНОЧНЫЕ СРЕДСТВА И ПРИМЕРЫ ЗАДАНИЙ ДЛЯ ОЦЕНКИ РЕЗУЛЬТАТОВ ОСВОЕНИЯ ДИСЦИПЛИНЫ

4.1 Текущий контроль

Оценка за курс складывается из следующих видов заданий текущего контроля, каждый из которых обладает своим весом в общей системе:

Критерий	**Процент в итоговой оценке**
Class participation	40%
Essay:	60%
- Paper proposals	- 10%
- Final paper:	- 50%
o In-class presentation of draft paper	o 20%
o Final paper submitted by email	o 30%

На курсе используется 10-балльная система оценивания. За каждое задание студент получает от 1 до 10 баллов. Итоговый балл за каждый вид заданий рассчитывается как среднее арифметическое всех полученных баллов за все задания в рамках одного вида (О1, О2). Невыполненное в срок задание оценивается в 0 баллов.
Общая оценка за курс (О) рассчитывается как:

$$О = О1 \times 0{,}4 + О2 \times 0{,}6.$$

Если по результатам текущего контроля студент получил положительную оценку (не ниже «удовлетворительно»), оценка за промежуточную аттестацию выставляется автоматически.

Class participation
A composite grade based on active seminar contributions and the successful completion of all daily case studies and exercises.
Mere attendance does not count positively as participation: students must meaningfully engage with and shape seminar discussions.
However, student absence does count against participation, with 10% of the total participation grade deducted for each absence.
Essay
Write an essay and reflect on quotes, using the concepts and ideas from the course.
You will write an essay based on a provided quote from a key thinker in the field of technology and automation. Your task is not merely to explain the quote, but to construct a well-reasoned argument that engages with it critically, using historical examples and philosophical concepts discussed in the course. The assignment is divided into three stages, each contributing to your final grade.
- Paper proposals
The proposal is your plan for the final paper. It should demonstrate that you have chosen a viable topic, done preliminary research, and have a clear direction for your argument.

The proposal will be graded on the clarity and originality of your thesis, the relevance of your chosen case study and philosophical framework, the coherence of your outline, and the quality of your preliminary bibliography.

- Final paper
    - In-class presentation of draft paper: this is an opportunity to present your work-in-progress, receive feedback from your peers and the instructor, and practice articulating your argument.
    - Final, typed paper submitted by email: the final paper is a polished, academic essay that fully develops the argument from your proposal, incorporating insights gained from the presentation feedback.

Assessment Criteria

Grade	Criteria
10	can be given for the essay (no less than 1000 words) if 2 elements are present: 1) the student identified all quotes correctly; 2) the essay written in accordance with the following requirements: a) in the essay, there is a sequential logic structure (introduction, body, and conclusion); b) the essay demonstrates good knowledge and understanding of all texts analyzed; c) the essay contains at least 10 exact quotations, different from the attributed quotations in assignment
9	can be given for the essay (no less than 1000 words) if 2 elements are present: 1) the student identified all quotes correctly; 2) the essay written in accordance with the following requirements: a) in the essay, there is a sequential logic structure (introduction, body, and conclusion); b) the essay demonstrates good knowledge and understanding of all texts analyzed; c) the essay contains at least 9 exact quotations, different from the attributed quotations in assignment
8	can be given for the essay (no less than 1000 words) if 2 elements are present: 1) the student identified all quotes correctly; 2) the essay written in accordance with the following requirements: a) in the essay, there is a sequential logic structure (introduction, body, and conclusion); b) the essay demonstrates good knowledge and understanding of all texts analyzed; c) the essay contains at least 8 exact quotations, different from the attributed quotations in assignment
7	can be given for the essay (no less than 1000 words) if 2 elements are present: 1) the student identified all quotes correctly; 2) the essay written in accordance with the following requirements: a) in the essay, there is a sequential logic structure (introduction, body, and conclusion); b) the essay demonstrates good knowledge and understanding of all texts analyzed; c) the essay contains at least 7 exact quotations, different from the attributed quotations in assignment
6	can be given for the essay (no less than 1000 words) if 2 elements are present: 1) the student identified all quotes correctly; 2) the essay written in accordance with the following requirements: a) in the essay, there is a sequential logic structure (introduction, body, and conclusion); b) the

	essay demonstrates good knowledge and understanding of all texts analyzed; c) the essay contains at least 6 exact quotations, different from the attributed quotations in assignment
5	can be given for the essay (no less than 1000 words) if 2 elements are present: 1) the student identified all quotes correctly; 2) the essay written in accordance with the following requirements: a) in the essay, there is a sequential logic structure (introduction, body, and conclusion); b) the essay demonstrates good knowledge and understanding of all texts analyzed; c) the essay contains at least 5 exact quotations, different from the attributed quotations in assignment.
4	can be given for the essay (no less than 1000 words) if 2 elements are present: 1) the student identified all quotes correctly; 2) the essay written in accordance with the following requirements: a) in the essay, there is a sequential logic structure (introduction, body, and conclusion); b) the essay demonstrates good knowledge and understanding of all texts analyzed; c) the essay contains at least 4 exact quotations, different from the attributed quotations in assignment
3	can be given for the essay (no less than 1000 words) if 2 elements are present: 1) the student identified all quotes correctly; 2) the essay written in accordance with the following requirements: a) in the essay, there is a sequential logic structure (introduction, body, and conclusion); b) the essay demonstrates good knowledge and understanding of all texts analyzed; c) the essay contains at least 3 exact quotations, different from the attributed quotations in assignment
2	can be given for the essay (no less than 1000 words) if at least one quote is identified incorrectly
1	can be given for the essay (no less than 1000 words) if at least one quote is identified incorrectly

4.2 Промежуточная аттестация

Студентам, набравшим достаточные для удовлетворительной оценки баллы за текущий контроль, оценка за дисциплину выставляется равной оценке за текущий контроль (См. п. 4.1)

Студентам, получившим неудовлетворительную оценку по результатам текущего контроля, необходимо по согласованию с преподавателем сдать один или несколько компонентов текущего контроля. Преподаватель вправе предложить студентам выполнить задание, не повторяющее задание текущего контроля, но проверяющее аналогичные знания, умения и навыки.

4.3 Примеры заданий

Примеры цитат для эссе

(1) There are no pretechnical forms of thought. There are no ways of thinking that remain isolated from technical acts, no ideas or dreams or fears or desires insulated from the characteristics of a given technical age.

-May, John. “Everything Is Already an Image.” Log, no. 40 (2017): 9.

(2) “If the telegraph, the telephone, or the radio were analyzed as mass media at all, then it was with a view toward uncovering their military origin and exposing the negative horizon of war of mess media and their alleged public status.”
- Siegert, Bernhard. Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real. New York: Fordham University Press, 2015: 4.
(3) “For a long time, kinematic mechanisms were powered by humans or animals. During this stage, it was an obvious tautology to compare the movement of bodies to the movement of a machine, when the machine itself depended on humans or animals to run it.”
-Canguilhem, Georges. Knowledge of Life. New York: Fordham University Press, 2018: 47.
(4) “In an accelerated projection, the scale of the realms of being shifts…in the direction of a more qualified existence. Hence, crystals start vegetating like live cells; plants become animal, choosing their lighting and support and expressing their vitality through gesticulations.”
-Epstein, Jean. The Intelligence of a Machine. Minneapolis: Univocal Publishing, 2014: 27-28.
(5) “Taylor has little in common with those physiologists or psychologists who have attempted, before him or after him, to gather information about human capacities in the spirt of scientific interest. Such records and estimates as he did produce are crude in the extreme, and this has made it was for critics such as Georges Friedmann to poke holes in his ‘experiments’…”
- Braverman, Harry. Labor and Monopoly Capita: The Degradation of Work in the 20th Century. New York: Monthly Review Press (1974): 62.
(6) “… the relation of capital as value which appropriates value- creating activity is, in fixed capital existing as machinery, posited at the same time as the relation of the use value of capital to the use value of labour capacity; further, the value objectified in machinery appears as a presupposition against which the value-creating power of the individual labour capacity is an infinitesimal, vanishing magnitude; the production in enormous mass quantities which is posited with machinery destroys every connection of the product with the direct need of the producer, and hence with direct use value…”
- Marx, Karl. Grundrisse: Foundations of the Critique of Political Economy. New York: Penguin Books, 1993: 694.
(7) “Indeed, one could argue that the erasure of embodiment is a feature common to both the liberal humanist subject and the cybernetic posthuman. Identified with the rational mind, the liberal subject possessed a body but was not usually represented as being a body.”
- Hayles, N. Katherine. How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics. London: The University of Chicago Press, 1999: 4.
(8) “But because media were less a focus than a change of the frame of reference for the traditional objects of the humanities…the traditional objects of research that defined communication studies (e.g., press, film, television, radio) were never of great interest.
- Siegert, Bernhard. Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real. New York: Fordham University Press, 2015: 2.
(9) The fact that for many thousands of years prior to the meergence of orthographic writing time was conceived of as a circle or cycle is proof that we are not born thinking linearly or historically.
-May, John. “Everything Is Already an Image.” Log, no. 40 (2017): 17.
(10) “Soon the question becomes more general: such a parasite is responsible for the growth of the system's complexity, such a parasite stops it. The other question is still there: are we in the pathology of systems or in their emergence and evolution?”
-Serres, Michel. The Parasite. Minneapolis: University of Minnesota Press, 2007: 14.
(11) “In the wake of the new philosophical realisms of recent years, they do so through a recusal of the rhetoric of human finitude in favour of a renewed Prometheanism and

rationalism, an affirmation that the increasing immanence of the social and the technical is irreversible and indeed desirable…"
- Mackay, Robin and Armen Avanessian. "Introduction," in #Accelerate: The Accelerationist Reader. Falmouth: Urbanomic Media LTD, 2014: 7.
(12) "We can say, then, that as long as the concept of the human and animal body is inextricably 'tied' to the machine, it is not possible to offer an explanation of the body in terms of the machine. Historically, it was not possible to conceive of such an explanation until the day that human ingenuity created mechanical devices that not only imitated organic movements…but also required no human intervention…"
-Canguilhem, Georges. Knowledge of Life. New York: Fordham University Press, 2018: 48-49.
(13) "The rats are attracted to the table. One invites the other. It wouldn't occur to Bertrand or to Raton to eat, quite simply, something like chestnuts. They march Indian file, the monkey behind the cat, the country bumpkin behind the city slicker. Hence, the chain of my decisions, unitary in nature. The guest, though a rat, is a parasite for anthropology, a guest at an interrupted banquet, like that of Don Juan's Stone Guest, like the Last Supper."
-Serres, Michel. The Parasite. Minneapolis: University of Minnesota Press, 2007: 5.
(14) "Rather, my selection of theories and researchers has been dictated by a desire to show the complex interplays between embodied forms of subjectivity and arguments for disembodiment throughout the cybernetic tradition. In broad outline, these interplays occurred in three distinct waves of development. The first, from 1945 to 1960, took homeostasis as a central concept; the second, going roughly from 1960 to 1980, revolved around reflexivity; and the third, stretching from 1980 to the present, highlights virtuality."
- Hayles, N. Katherine. How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics. London: The University of Chicago Press, 1999: 7.
(15) "Conversely, during a slow motion projection we observe a degradation of forms as they undergo a diminution of their mobility and thus lose their vital quality. Human semblance, for instance, is deprived in large part of its spirituality."
-Epstein, Jean. The Intelligence of a Machine. Minneapolis: Univocal Publishing, 2014: 29.
(16) The always-present experience of all calculably possible future states—which is the logic of real-time modeling—is a very different imaginative framework than the orthographic imagination, which always drew on (traced, overlaid, re-presented) the past to "project" the future.
-May, John. "Everything Is Already an Image." Log, no. 40 (2017): 19.
(17) "Finally, a history of the postal system is a media history if it serves as a system of reference for a history of communication. That is to say, media do not emerge independently and outside of a specific historical practice."
- Siegert, Bernhard. Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real. New York: Fordham University Press, 2015: 5.
(18) "At the basis of all accelerationist thought lies the assertion that the crimes, contradictions and absurdities of capitalism have to be countered with a politically and theoretically progressive attitude towards its constituent elements. Accelerationism seeks to side with the emancipatory dynamic that broke the chains of feudalism and ushered in the constantly ramifying range of practical possibilities characteristic of modernity."
- Mackay, Robin and Armen Avanessian. "Introduction," in #Accelerate: The Accelerationist Reader. Falmouth: Urbanomic Media LTD, 2014: 4.
(19) "Now, however, with the distinction between circulating capital (raw material and product) and fixed capital (means of labour), the distinctness of the elements as use values is posited simultaneously as a distinction within capital as capital, on its formal side. The relation

between the factors, which had been merely quantitative, now appears as a qualitative division within capital itself, and as a determinant of its total movement (turnover)."
- Marx, Karl. Grundrisse: Foundations of the Critique of Political Economy. New York: Penguin Books, 1993: 692.
(20) "That the pay of labor is a socially determined figure, relatively independent of productivity, among employers of similar types of labor power in any given period was thus known to Taylor. Workers who produce twice or three times as much as they did the day before do not thereby double or triple their pay…"

Тексты для обсуждения

1. Bernhard Siegert, "Introduction" in Cultural Techniques. Herbert Marcuse, "The New Forms of Control" in One-Dimensional Man.
2. Bernhard Siegert, "Chapter 1 | Cacography or Communication: Cultural Techniques of Sign-Signal Distinction". Michel Serres "Rats' Meals / Cascades" in The Parasite.
3. Harry Braverman, "Scientific Management" in Labor and Monopoly Capital. Karl Marx "Fragment on Machines" in Grundrisse
4. Eden Medina, "Prologue", "Chapters 1 & 2" in Cybernetic Revolutionaries. Anson Rabinbach, "The Aesthetics of Production in the Third Reich" in The Decline of the Utopias of Labor.
5. N. Katherine Hayles, "Prologue" and "Chapter 1" in How We Became Posthuman. John May, "Everything is Already an Image".
6. Alex Williams and Nick Srnicek, "#ACCELERATE MANIFESTO for an Accelerationist Politics". Robin Mackay and Armen Avanessian, "Introduction" in #ACCELERATE: the Accelerationist Reader. Steven Shaviro, "Introduction to Accelerationism" and "Accelerationist Aesthetics" in No Speed Limit.

5. УЧЕБНО-МЕТОДИЧЕСКОЕ И ИНФОРМАЦИОННОЕ ОБЕСПЕЧЕНИЕ ДИСЦИПЛИНЫ

5.1 Литература

1. Пивоев, В. М. Философия культуры : учебное пособие для вузов / В. М. Пивоев. — 5-е изд., перераб. и доп. — Москва : Издательство Юрайт, 2024. — 369 с. — (Высшее образование). — ISBN 978-5-534-14086-6. — Текст : электронный // Образовательная платформа Юрайт [сайт]. — URL: https://urait.ru/bcode/543543.
2. Цымбал, В. П. Синергетическая концепция создания моделей и технологий : учебное пособие для вузов / В. П. Цымбал, П. А. Сеченов, И. А. Рыбенко. — Москва : Издательство Юрайт, 2024. — 249 с. — (Высшее образование). — ISBN 978-5-534-15011-7. — Текст : электронный // Образовательная платформа Юрайт [сайт]. — URL: https://urait.ru/bcode/544525.

5.2 Электронные образовательные ресурсы

Материалы дисциплины размещены в LMS: https://l.skolkovo.ru/login/index.php

6. ЛИЦЕНЗИОННОЕ И СВОБОДНО РАСПРОСТРАНЯЕМОЕ ПРОГРАММНОЕ ОБЕСПЕЧЕНИЕ

Операционная система Simple Linux, браузер Yandex браузер, антивирусное ПО Calmantivirus;
Свободно распространяемое ПО, в том числе отечественного производства:
Офисный пакет Libre Office, Okular PDF Reader, 7-Zip Архиватор, GIMP Редактирования фотографий, Inkscape Векторная графика, Blender 3D графика, Kdenlive Видеоредактор, Audacity Аудиоредактор, VLC Медиаплеер, Thunderbird Почтовый клиент, Flameshot Создание скриншотов.

7. МАТЕРИАЛЬНО-ТЕХНИЧЕСКОЕ ОБЕСПЕЧЕНИЕ ДИСЦИПЛИНЫ

Учебная аудитория для проведения занятий лекционного типа, оснащенная мультимедийным оборудованием, учебной мебелью, доской или со стенами с маркерным покрытием.

Учебная аудитория для проведения занятий семинарского типа, оснащенная мультимедийным оборудованием, учебной мебелью, доской или со стенами с маркерным покрытием.

Аудитория (коворкинг) для самостоятельной работы, оснащенная учебной мебелью, ноутбуками.

Материально-техническое обеспечение аудиторий представлено на официальном сайте https://bbask.ru/sveden/objects/.