ANDIJAN STATE PEDAGOGICAL INSTITUTE

Lecture materials · 2026–2027 academic year

SUBJECT

Information Systems and Digital Technologies

Lecture 20 · Staying Current in the Digital World

2 hours

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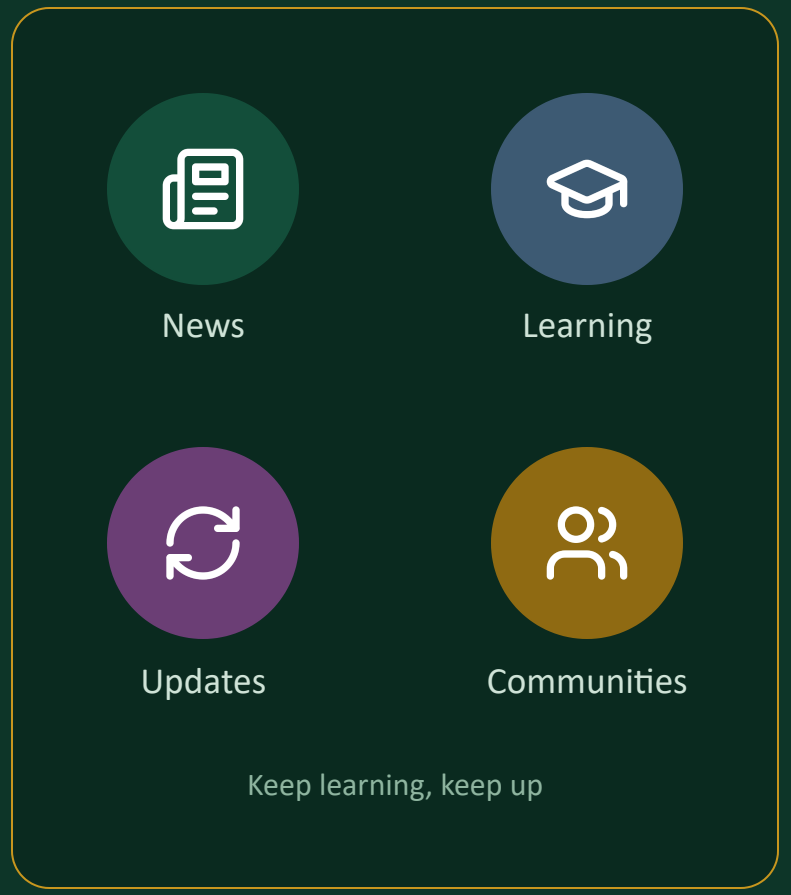
LECTURE 20 · 2 HOURS

FUNDAMENTALS OF COMPUTERS · TOPIC 13

Staying Current in the Digital World

Tools, habits and a lifelong-learning plan for a world that never stops updating

update · learn · check · share



What is new since you were ten?

Name one app, device or online service you use today that did not exist — or you did not use — five years ago.



Think – Pair – Share (3 min)

1 How did you learn to use it?

2 Where do you hear about new technology?

3 Which tech skill do you wish you had?

By the end of this lesson, you can…

1. **Explain** why technology changes so fast and why lifelong learning matters.
2. **Use** tools such as newsletters, RSS, podcasts and communities to stay updated.
3. **Evaluate** whether a source of tech information can be trusted.
4. **Keep** devices and software up to date, safely.
5. **Plan** your own learning with courses, practice, a portfolio and SMART goals.

Why technology never stands still

Moore’s law

The number of transistors on a chip has roughly doubled every two years.

New devices

Phones, laptops and watches get new models every year.

Constant updates

Apps update every few weeks; systems every year.

New fields

AI, cloud computing and the Internet of Things grew in a few years.

So: skills you learn today will need updating tomorrow — learning never finishes.

How fast the digital world changed

1991

The World Wide Web

Tim Berners-Lee’s web goes public.

2004

Social networks

Facebook starts; social media spreads worldwide.

2007

Smartphones

The iPhone makes touch-screen phones popular.

2010s

Cloud and apps

Files, music and work move online; app stores boom.

2022

Generative AI

ChatGPT brings AI chatbots to millions.

Think: each change created new jobs, new risks and new things to learn.

Trends to watch

Artificial intelligence

Chatbots, translation, image tools and AI inside everyday apps.

Cloud computing

Programs and files run on remote servers, not your own PC.

Internet of Things

Smart meters, cameras, watches and cars connected online.

Cybersecurity

More connections mean more attacks — and more jobs defending.

5G and faster networks

Very fast mobile Internet with little delay.

Green computing

Using less energy and producing less e-waste.

Why lifelong learning matters

Lifelong learning = continuing to learn new knowledge and skills throughout your life, not only at school.

Jobs change

Most jobs now use new digital tools every few years.

New opportunities

Freelancing, start-ups and remote work need fresh skills.

Staying safe

New scams appear; knowing them protects you and your family.

Helping others

You can teach parents and grandparents new services.

Confidence

Learning how to learn makes new technology less scary.

Curiosity

Understanding how things work is interesting in itself.

CHECK FOR UNDERSTANDING

True or false?

A	After university you will have learned all the technology you need.
B	Moore’s law says chips get about half as powerful every two years.
C	Knowing new scams is one reason to keep learning.
D	The Internet of Things means everyday objects connected online.
E	Smartphones became popular around 2007.
F	Learning how to learn is a skill in itself.

Write T or F

T = true

F = false

Bonus: correct each false one.

Tools for staying updated

Tech news sites

Trusted news outlets with technology sections.

Newsletters

A weekly e-mail summary of the most important news.

RSS and news aggregators

Feedly or Google News collect many sources in one place.

Podcasts and video channels

Learn while you travel or walk.

Communities

Telegram channels, forums, Stack Overflow, GitHub, meetups.

Official sources

Release notes, company blogs and help centres.

Build a healthy information diet

01

Choose a few trusted sources

Three to five good sources beat fifty random ones.

02

Set a routine

Ten minutes a day, or one hour a week, at a fixed time.

03

Mix formats

Read, listen and watch — then try it yourself.

04

Avoid overload

Turn off extra notifications and unfollow noisy channels.

Remember: the goal is understanding, not reading every headline.

Can you trust this source?

CHECK	Ask yourself	Red flag
Currency	When was it published or updated?	No date, or years old
Authority	Who wrote it? Do they have real expertise?	Anonymous author, unknown site
Accuracy	Is there evidence? Do other good sources agree?	No sources; only one site says it
Purpose	Is it informing, selling or persuading?	Hidden ads, “miracle” claims
Relevance	Does it answer my actual question?	Clickbait headline, off-topic text

Quick rule: check two independent trusted sources before you believe or share.

CHECK FOR UNDERSTANDING

Trust it or check it?

A	Microsoft’s official page explains a new Windows feature.
B	An anonymous channel: “New app makes your phone 10× faster!”
C	A 2014 article explains how to set up a modern phone.
D	A “review” site that sells only the product it praises.
E	Three major news sites report the same security warning.
F	A forum answer with many up-votes and a working code example.

Decide

Trust

Check first

Avoid

Name the CRAAP check that helped you.

Keeping your devices up to date

Why update?

operating systems, apps and firmware

- Security patches close holes attackers use
- Bugs are fixed; devices run better
- New features and compatibility
- Old systems lose support: Windows 10 ended in October 2025

How to update safely

five minutes that save a lot of trouble

- Turn on automatic updates
- Update only from official stores and settings
- Back up and charge the device first
- Restart when asked — updates finish then

Warning: a pop-up saying “Your phone needs an update — download here” on a website is a trap.

A cycle for learning any new technology



Why practice matters

We remember what we do far better than what we only read.

Small projects turn knowledge into skill.

Why sharing matters

Explaining something shows what you really understand.

Others give feedback and new ideas.

Where to learn — often for free

Online courses (MOOCs)

Coursera, edX: university courses online.

Free learning sites

Khan Academy, freeCodeCamp, W3Schools.

Local programmes

IT Park courses, One Million Uzbek Coders.

Video tutorials

Step-by-step lessons — check the date and the author.

Official documentation

Help centres and guides from the maker.

Mentors and communities

Ask questions, join clubs, meet professionals.

Certificates and a portfolio

Certificates

proof that you finished a course or passed a test

- Online course certificates
- Industry certificates from companies such as Microsoft, Cisco or Google
- Show employers what you studied

A portfolio

proof of what you can actually do

- Your best projects in one place
- Code on GitHub, designs, a website or a blog
- Grows as you learn — update it regularly

Best of both: a certificate says you learned it; a portfolio shows you can use it.

CHECK FOR UNDERSTANDING

Which tool or technique?

01 You want one weekly e-mail with the main AI news.

02 You want to follow twenty tech blogs in one list.

03 Your code shows an error message you do not understand.

04 A free university course on data analysis, with a certificate.

05 Your phone says a security update is ready.

06 You want employers to see the websites you built.

Choose from:

- Newsletter
- RSS reader
- Community Q&A
- MOOC
- Install the update
- Portfolio

Using AI to learn — the smart way

Explain it simply

Ask for an explanation at your level, with examples.

Quiz me

Ask for practice questions — then check the answers.

Review my work

Get feedback on your code or writing, then improve it yourself.

Make a plan

Ask for a study plan, then adapt it to your time.

Three rules: verify facts · keep private data out · do the thinking yourself.

Staying current without burning out

✓ DO

- Schedule a little learning every week
- Check news before you believe it
- Learn by building small projects
- Rest — sleep helps you remember

✗ DON’T

- Chase every new trend at once
- Scroll news for hours without a goal
- Believe hype and “miracle” claims
- Ignore update and security warnings

Skills that never go out of date

Digital literacy

Using devices, files, the Internet and new apps confidently.

Problem solving

Breaking a problem into steps (Topic 7).

Critical thinking

Judging information and sources carefully.

Communication and teamwork

Working with others online and face to face (Topic 11).

Learning how to learn

Finding resources, practising and reflecting.

Safety and ethics

Protecting data and acting responsibly (Topics 9, 12).

Make a SMART learning goal

LETTER	Meaning	Example: “learn spreadsheets”
S — Specific	Exactly what will you learn?	Formulas and charts in Excel
M — Measurable	How will you know you did it?	Finish 10 lessons and make a budget sheet
A — Achievable	Is it realistic for you?	30 minutes a day, 5 days a week
R — Relevant	Why does it matter to you?	I need it for my course project
T — Time-bound	By when?	By 15 December

Whole goal: “By 15 December I will finish 10 Excel lessons and build a budget sheet, 30 minutes a day.”

CHECK FOR UNDERSTANDING

SMART or not?

A	“I want to be good at computers.”
B	“By 1 March I will finish a 12-lesson HTML course and publish one web page.”
C	“I will learn every programming language this month.”
D	“I will read one tech newsletter every Monday for eight weeks.”
E	“Someday I will learn about AI.”
F	“By the end of term I will pass the free Python basics certificate test.”

Decide

SMART

Not SMART — which letter is missing?

Bonus: rewrite one weak goal.

People who keep learning

TEACHER

Learns an online platform to run lessons

→ Short course + practice with a class

ACCOUNTANT

Moves from paper to accounting software

→ Official training + colleagues' help

FARMER

Uses a phone app and sensors to plan watering

→ Video tutorials + a local expert

STUDENT

Learns Python from free online courses

→ MOOC + projects on GitHub

GRANDMOTHER

Learns to video-call her grandchildren

→ A patient grandchild as teacher

IT SPECIALIST

Follows security news every morning

→ Newsletters + vendor alerts

Review: can you answer these?

01 Why does technology change so quickly?

02 What is lifelong learning, and why does it matter?

03 Name four tools for staying updated.

04 What does an RSS reader do?

05 Name three checks for judging a source.

06 Why should you install security updates?

07 Certificate or portfolio: what is the difference?

08 What do the letters of SMART stand for?

Exit ticket

Answer on a slip of paper before you leave.

1. Name two tools you will use to stay current in technology — and why you chose them.

2. You see a post: “New Windows update deletes your files!” Which two checks do you make before sharing it?

3. Write one SMART learning goal for the next four weeks.