

NNU Streaming Media Information and Policy

On-demand streaming media describes audio and visual content that is stored on a server and transferred to a Web browser in a continuous stream, as opposed to content that users download to their own computer.

Procedures

Getting content from analog to streamed involves five steps. E-Learning Services and Media Technology can assist NNU faculty, adjuncts and students in completing this process.

1. Prepare
2. Digitize
3. Encode
4. Upload
5. Serve

1. Prepare

First, you must have audio, visual or animated content. This can be from a videotaped lecture, a recorded message, etc.

Use of the material must comply with copyright laws and/or Fair Use guidelines [<http://www.copyright.com/Services/copyrighntoncampus/>](http://www.copyright.com/Services/copyrighntoncampus/). Three scenarios exist:

- If you or NNU own(s) the rights to the content, it may be uploaded.
- If you have written permission from the copyright owner, such as a publishing company, the content may be uploaded.
- If you do not have written permission but the Fair Use guidelines apply, the content may be uploaded for a limited amount of time. Access to media under this condition will be removed at the end of the semester or program session to comply with TEACH Act guidelines [<http://www.copyrightoncampus.com/basics/teach.asp>](http://www.copyrightoncampus.com/basics/teach.asp).

For help in deciding whether you can use certain media, contact the NNU Copyright Officer (typically the library director). E-Learning Services also can give you resources to help you determine what is usable.

Beyond compliance with the law, instructors will want to ensure that their intended use of media meets sound pedagogical goals. For instance, avoid placing just a “talking head” on your course website. Include opportunities for students to interact, perhaps by asking them to pause the file while they answer questions in a discussion board. Use video to explain – and illustrate – difficult concepts or skills. The key concept to remember is to have specific instructional objectives in mind when you use video and audio.

Streamed media intended for nonacademic use (e.g., an Admissions video) must be approved by the Communications Council, headed by the Marketing Director.

Media Technology rents equipment to record or videotape, which you may do on your own or hire personnel to assist you at hourly rates (see **Costs**). You may also check with the Mass Communications department if you need more advanced production equipment and personnel. You can create your own MS PowerPoint presentations from any managed computer on campus.

2. Digitize

Once you have audio or video content on tape, the next step is to convert it from its analog state to digital. If your content is in a computer file, skip ahead to the third step, **Encode**.

A do-it-yourself station for digitizing content is available in Media Technology during its regular operating hours for use by the NNU community. Academic programs have priority over nonacademic in scheduling use of the station. NNU faculty, staff or students desiring to create personal files (such as for a non-NNU website) may use the station on a walk-in basis.

Training on the do-it-yourself station is provided by E-Learning Services about every two months.

Media Technology can digitize your content for you (see **Costs**). Contact Media Technology at least 72 hours before you need the content.

Note that digitizing takes some time – up to one-and-a-half times the play length of your file – depending on the content and the settings you choose. A 10-minute video clip, for instance, could take approximately 15 minutes to digitize.

If your file is on DVD, a substep of digitizing is “ripping.” Content must be in a computer file in order to be streamed, so content on a DVD must be “ripped.”

Software for ripping a DVD, which is the process of copying files from DVD directly to a computer's hard drive, is available at the Media Technology do-it-yourself station. The station is open during Media Technology's regular operating hours for use by the NNU community. Academic programs have priority over nonacademic in scheduling use of the station. NNU faculty, staff or students desiring to create personal files (such as for a non-NNU website) may use the station on a walk-in basis.

Departments may also wish to purchase ripping software for their own use. Software is generally available for download from the Internet; consult Information Technology for guidance.

If you choose to have your content digitized through off-campus means, consider taking the next step and encoding the media as well. This will help make the rest of the process go smoother.

3. Encode

Once your content is in digital form, available as a computer file, it must be encoded so that the server can stream it. Encoding software is available at the Media Technology do-it-yourself station. The station is open during Media Technology's regular operating hours for use by the NNU community. Academic programs have priority over nonacademic in scheduling use of the station. NNU faculty, staff or students desiring to create personal files (such as for a non-NNU website) may use the station on a walk-in basis.

Also, Windows Encoder is available as a free download from Microsoft, or Media Technology can encode your content for you (see **Costs**). Contact Media Technology at least 72 hours before you need it.

If you choose to use an off-campus resource for this step, make sure that you consider your audience of Internet users in preparing the file. Large file sizes take much longer for dial-up users to access, so it is best to encode separate files for each Internet connection speed (e.g., dial-up and cable/DSL). Media Technology can provide guidance on appropriate settings.

A specific file name, all lowercase, is recommended. For instance, the file name might include:

- a) The course or department web page where it will be used (e.g., “bu541” or “Admissions”)
- b) Some kind of identifying title for the content (e.g., “supplydemand” or “explore2006”)
- c) The version of the file (e.g., “56k” or “broadband”)

Do not include spaces, dots, quotation marks or other non-alphanumeric characters. An underscore (_) is permissible. The extension should be .wma for audio files or .wmv for video files (NNU uses Windows Media Player for viewing files).

Encoded files may be stored on a CD-ROM, DVD-ROM, USB device, or a removable FireWire hard drive.

4. Upload

After media files are encoded, they must be transferred, or uploaded, to the server. For academic use, create a new folder titled *public.www* on your N: drive. Save the encoded file to the N://public.www folder.

- On campus, click My Computer from the Start menu and copy the file from your storage device into the public.www folder.
- Off campus, use NNU's FTP site (File Transfer Protocol). Go to <ftp://nftp.nnu.edu> and enter your Novell username and password. Save the file in the public.www folder within the Userdata folder.

For nonacademic use, contact the Technical Response Center (help@nnu.edu or 467-8111) for assistance with uploading the file to an appropriate location on the NNU website.

Note that streamed files are usually large and take up network space, which is limited. Due to their nature, NNU's online programs need as much space as possible for use of streamed media and have allocated funds to increase this space if required. If a great deal of space is needed for other than online programs, please work with your department chair or director to ensure that enough space is available.

5. Serve

After uploading your file, you may view it directly on the Internet. If for academic use, go to <http://people.nnu.edu>, then type in your username followed by a slash and the name of the file (e.g., http://people.nnu.edu/jdoe/en101_grammar_dsl.wmv).

To create a link to your file from within Blackboard, create an External Link in any content area of your course. The basic URL will be different depending on whether you are an NNU *employee* (faculty or staff) or *partner* (adjuncts).

If an employee: Type this URL, without parentheses, and enter your own username and the file name: [mms://media.nnu.edu/blackboard/employee/\(first letter of your username\)/\(your username\)/userdata/public.www/\(filename with extension\)](mms://media.nnu.edu/blackboard/employee/(first letter of your username)/(your username)/userdata/public.www/(filename with extension))

Using the example above, the URL for a link in Blackboard would be mms://media.nnu.edu/blackboard/employee/j/jdoe/userdata/public.www/en101_grammar_dsl.wmv

If a partner: Type this URL, without parentheses, and enter your own username and the file name: [mms://media.nnu.edu/blackboard/partner/\(first letter of your username\)/\(your username\)/userdata/public.www/\(filename with extension\)](mms://media.nnu.edu/blackboard/partner/(first letter of your username)/(your username)/userdata/public.www/(filename with extension))

Using the example above, the URL for a link in Blackboard would be mms://media.nnu.edu/blackboard/partner/k/ksmith/userdata/public.www/bu217_wordtutorial.wmv

Contact the Technical Response Center for help with posting the link to your streaming media file to your department web page if using Typo3.

Costs

Video Recording

Media Technology rents equipment to record or videotape, which you may do on your own or hire personnel to assist you at hourly rates.

Mini-DV video camera.....\$3 per hour, maximum of \$15 per day
Operator \$7.50 per hour

Digitizing and Encoding

Training is available from E-Learning Services free of charge for one person in each department to use the self-serve station.

If the self-serve station is not used, Media Technology will bill a department for digitizing and encoding content used for departmental purposes (for instance, the department's web pages).

Initial setup fee per file for digitizing and encoding \$30.00
(based on hourly rate of \$60, but setup should take no more than ½ hour)
Initial setup fee per file for encoding only..... \$25.00
Machine time to compress, digitize, etc. \$1.00 per hour

Bulk rates for multiple files may be negotiated.

Uploading and Serving

Uploading and storage on the server are free of charge for the online academic programs. For all others, see your department chair for space allocations.