

FAST FORWARD: TURNER

VO: What is a computer and how does it work?

CHELSEA: OMG, a computer?

WIN: There is a gnome. He has either a wheel or a treadmill—depending on the type of cardio that he's looking for.

MATTHEW: A computer itself is kind of a dumb machine.

WIN: He in turn throws a dart.

MATTHEW: A computer can only do things that you tell it to do.

WIN: That dart throwing and the running on the treadmill all occur 50 thousand times a minute...

MATTHEW: and does some pretty fascinating things depending on what the person dreamt up in their head.

CHELSEA: I don't know how a computer works.

WIN: It's pretty amazing stuff.

(TITLE SEQUENCE)

VO: Welcome to another episode of Fast Forward. And the reason you're watching people talk about mysterious computer gnomes is because today we're visiting a place completely powered by cutting edge technology--Turner Broadcasting in midtown Atlanta, home of TNT, TBS, CNN, Cartoon Network, Adult Swim, and a whole lot more. So let's start by meeting some of the folks who work here.

DeTag: I'm a senior animator/animation director here at Turner Studios.

Chelsea: I'm a media manager at Turner Broadcasting.

JIM: I'm the musicologist for Turner Studios

PETER: I am Vice President of Emerging Media for Turner Sports. I think I have the best job in the world.

VO: It turns out the Turner networks don't just work by magic. It takes people like

these, and a whole lot more—almost 7,000 in Atlanta alone, and another 4,000 around the world—amazingly creative people with serious technology know-how. And with that in mind, today we're gonna bust a few myths. So let's get started!

(BELL DING)

VO: To be a great animator, you just have to draw really well.

(BUZZER NOISE)

DeTAG: Animators have to live and breathe physics to make anything look realistic.

VO: Go on!

When you work as an animator, your draftsmanship is one part of it, but then your understanding of motion is the whole rest of your job. There's just the basics of...we must know gravity. Things have to sit right. You have to feel weight. If you throw a ball, it's not going to go as a straight-line cause with the reality of gravity it has to arc.

This is probably a good time to introduce a...

DeTAG: Teachable moment!

VO: Let's get a better handle on gravity.

VO: While we generally think of gravity as the thing that keeps us on the earth, it's actually a universal force of attraction between all particles. One way to look at it is with the formula $F = m \times g$, where F is the weight of an object, m is its mass, and g is acceleration due to gravity. While an object's mass doesn't change, its weight will depend on m and g . That's why things weigh less on the moon. It also affects how animators draw. For example...

DeTAG: Whenever you have to draw someone throwing something, if you did a straight line it wouldn't be believable and look fake so you have to put an arc to it to simulate the weight of gravity's force knocking it back down to earth. So gravity comes into play all the time in animation.

VO: So understanding physics helps animators. Odd but true.

Let's move on.

(BELL DING)

VO: When you hear music in movies or on TV shows, the musicians playing have to play it exactly right every single time.

(BUZZER NOISE)

JIM: If you see a scene that's supposedly taking place in a nightclub, there's really no music in the background. It's added later. This is where sound design and editing comes in handy.

VO: Cool job alert! That's Jim Rich, Turner's musicologist. And his job is--

JIM: Kind of similar to Shazam if you want to know the truth.

VO: And that is the truth. Jim's kind of like a human iPod, and his brain is like the biggest playlist ever. Tell us more, Jim!

JIM: If we're doing music for some of our made-for-TV movies or some of our shows, we'll be looking for some music to go underneath a scene. They'll send me scripts, dailies, or one-offs and I'll match music to those scenes.

VO: Sounds like purely creative stuff, yes?

JIM: You need to be very, very, very computer literate. You have to be very, very fluent in handling meta-data and in computer skills.

VO: Incidentally, meta-data is basically information that helps describe one or more aspects of some content, like the words you use to search for a video on YouTube.

VO: Okay, there's a lot of technology and creativity here at Turner. I'm starting to sense a theme. So let's get to myth number 3!

(BELL DING)

VO: Work that involves technology is boring.

(BUZZER)

VO: Yep, the folks here at Turner feel a bit differently. But I'll let them speak for themselves.

PETER: I'm what you call a creative technologist—I take data and figure out the best ways to deliver content. If Kobe has 10 dunks in a game, how do I take that

data—those 10 dunks—and serve it directly to a Kobe Bryant fan?

VO: I like that—Creative Technologist.

And the same thing is true at Adult Swim.

WIN: When I was kid I loved Legos and these are like digital Legos for me. I start with a blank page at the beginning of the day and at the end of the day I have something that, in one way or another, involves a cartoon in a very real capacity, which is a lot of fun...

VO: Nice! Three myths--busted. But before we go, how about some advice.

PETER: If you understand technology that's only going to help your career, because there is so many great opportunities that you can participate in as you get older.

VO: Sounds good. But with all of that creative technology stuff in mind, there's one more question I have to ask that guy from Adult Swim: What's the coolest thing about your job?

WIN: The coolest thing about working in tech for Adult Swim is probably working for Adult Swim. No matter what I'm doing at the end of the day, I am looking for a way to make cartoons or videogames cooler in some way, shape, or form. I don't think there are a lot of people who get up and end up at a place this fun.

VO: Maybe not. But if there are, we'll find them, and introduce them to you on the next episode of Fast Forward. See you then!

(MUSIC) (TITLE SEQUENCE)