

CODING IS EVERYWHERE

# Coding in the Internet





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**Level 5** encourages children to move from "learning to read" to "reading to learn" by providing even more text, varied writing styles, and less familiar topics.

Whichever book is right for your reader, Blastoff! Readers are the perfect books to build confidence and encourage a love of reading that will last a lifetime!

This edition first published in 2019 by Bellwether Media, Inc.

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Library of Congress Cataloging-in-Publication Data

Names: Noll, Elizabeth, author.

Title: Coding in the Internet / by Elizabeth Noll.

Description: Minneapolis, MN : Bellwether Media, Inc., 2019. | Series:

Blastoff! Readers. Coding Is Everywhere | Includes bibliographical references and index. | Audience: Ages 5 to 8. | Audience: Grades K to 3.

Identifiers: LCCN 2017059997 (print) | LCCN 2017060779 (ebook) | ISBN 9781626178342 (hardcover : alk. paper) | ISBN 9781618914781 (pbk. : alk. paper) | ISBN 9781681035758 (ebook)

Subjects: LCSH: Internet programming--Juvenile literature.

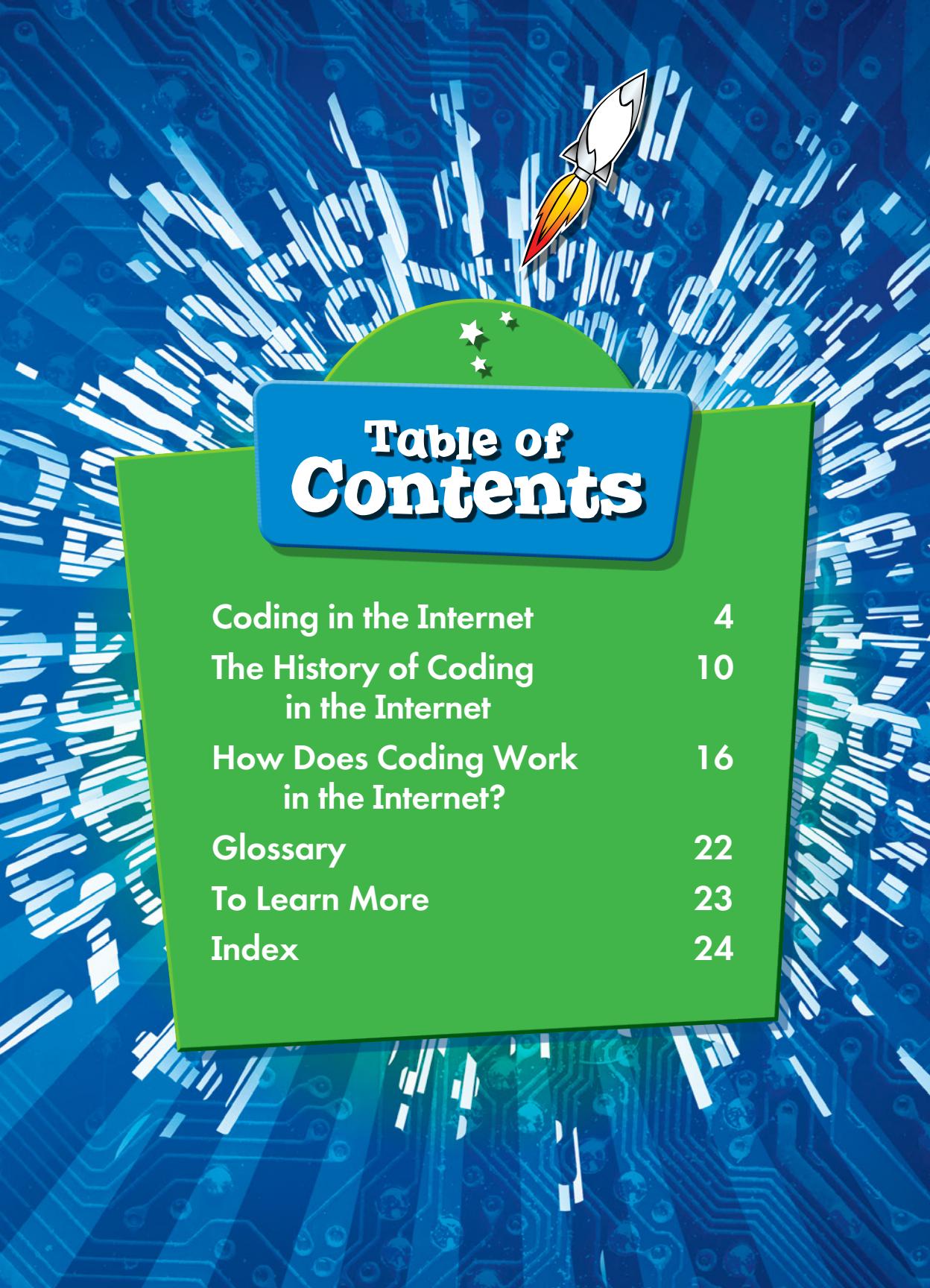
Classification: LCC QA76.625 (ebook) | LCC QA76.625 .N65 2019 (print) | DDC 006.7/6-dc23

LC record available at <https://lccn.loc.gov/2017059997>

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Editor: Christina Leaf      Designer: Brittany McIntosh

Printed in the United States of America, North Mankato, MN



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# Coding in the Internet



Do you listen to music on the **Internet**? Do you watch videos on YouTube? Maybe you find web sites about favorite animals.

Every web site you see  
was built with **code!**





Code tells computers what  
to do.

Everything on a web site is created with code. It controls how things look and move.

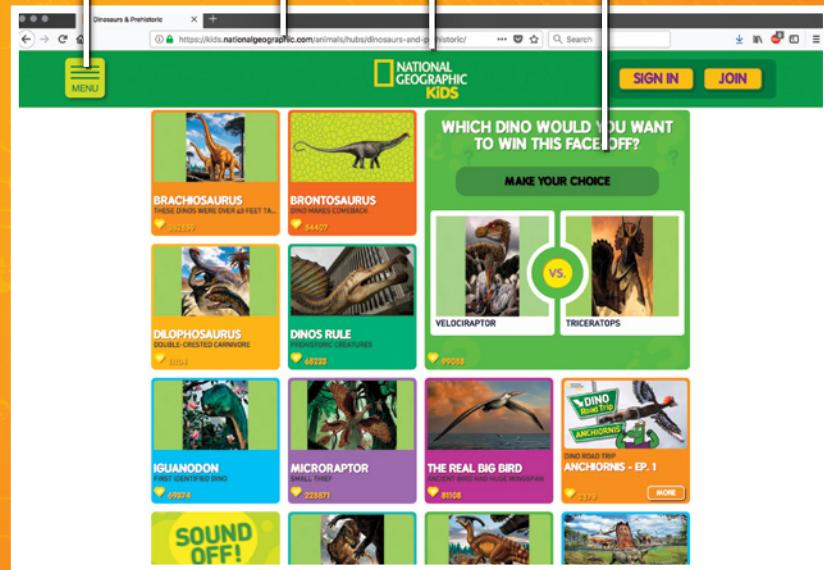
## What Coding Creates on a Web Site

navigation  
menu

logo

web  
address

site content

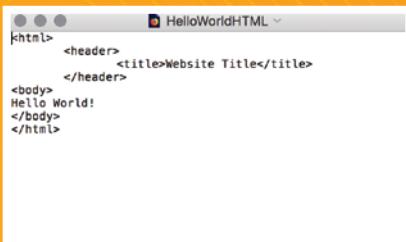


Code uses the English language.  
But it looks different from what  
you write.

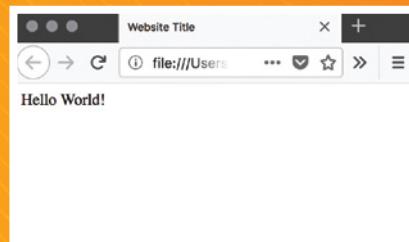


## HTML and CSS

### Simple web site in HTML:



```
<html>
  <header>    <title>Website Title</title>
  </header>
<body>
Hello World!
</body>
</html>
```



Hello World!

code

web site

### Simple web site in CSS:



```
<html>
  <header>    <title>Website Title</title>
  </header>

<style type="text/css">
h1 {
  color: Blue;
}
</style>
<body>
<h1>Hello World!</h1>
</body>
</html>
```



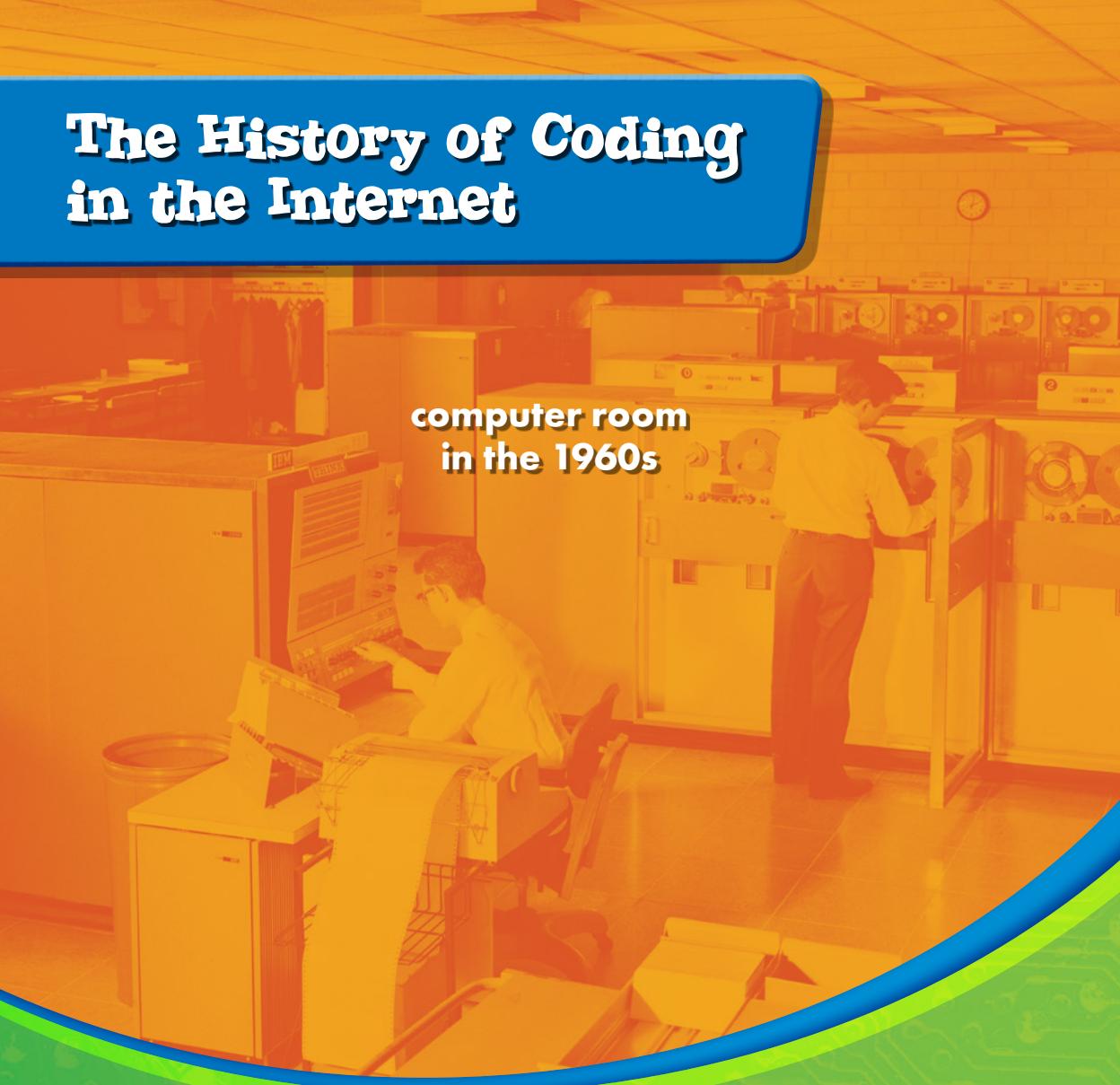
Hello World!

code

web site

It is written in special computer languages. These include **HTML** and **CSS**.

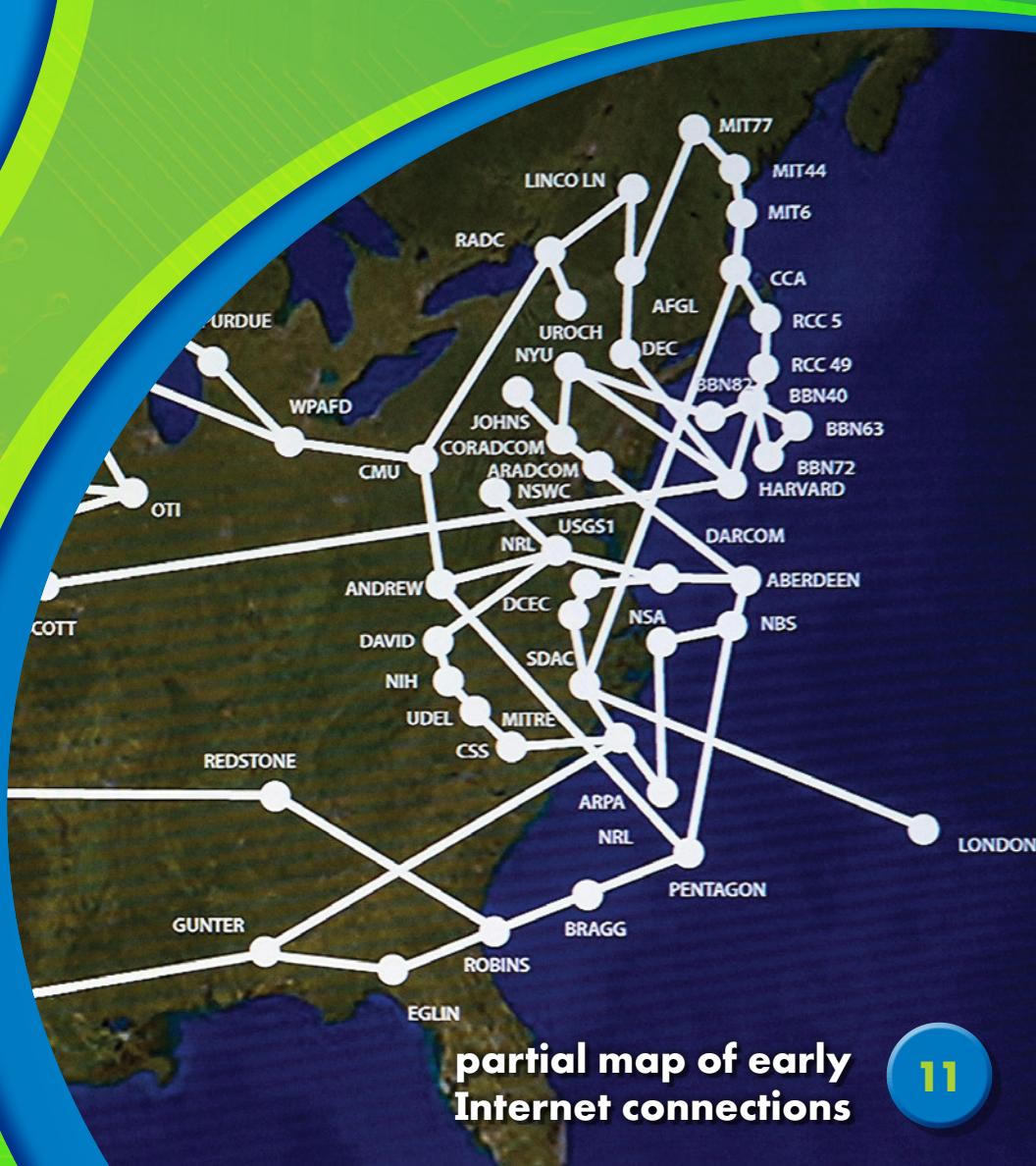
# The History of Coding in the Internet

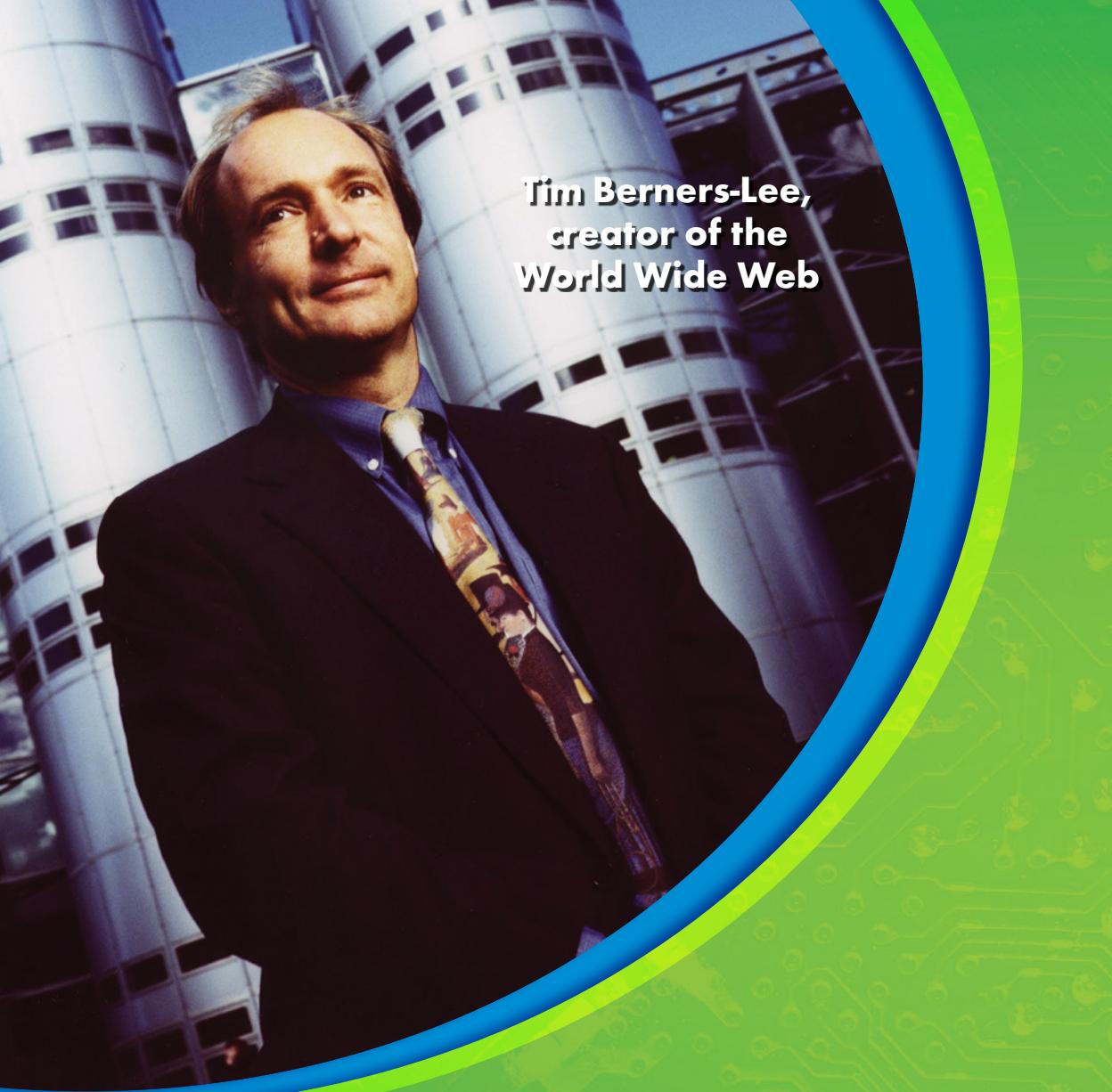


computer room  
in the 1960s

Early computers could not share information with one another.

In the 1960s, the United States military figured out how. It created an early form of the Internet.



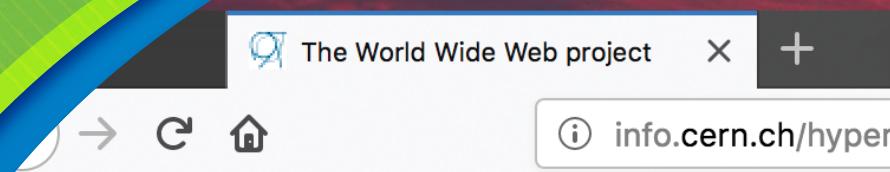


**Tim Berners-Lee,  
creator of the  
World Wide Web**

In the 1980s, other people started using the Internet.

Then a scientist created the **World Wide Web**. Most people use the Internet through the Web.

**the first web site**



# World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) inform

Everything there is online about W3 is linked directly or in

## What's out there?

Pointers to the world's online information, [subjects](#) ,

## Help

on the browser you are using

## Software Products

A list of W3 project components and their current sta

## Technical

Details of protocols, formats, program internals etc

## Bibliography

Paper documentation on W3 and references

## People

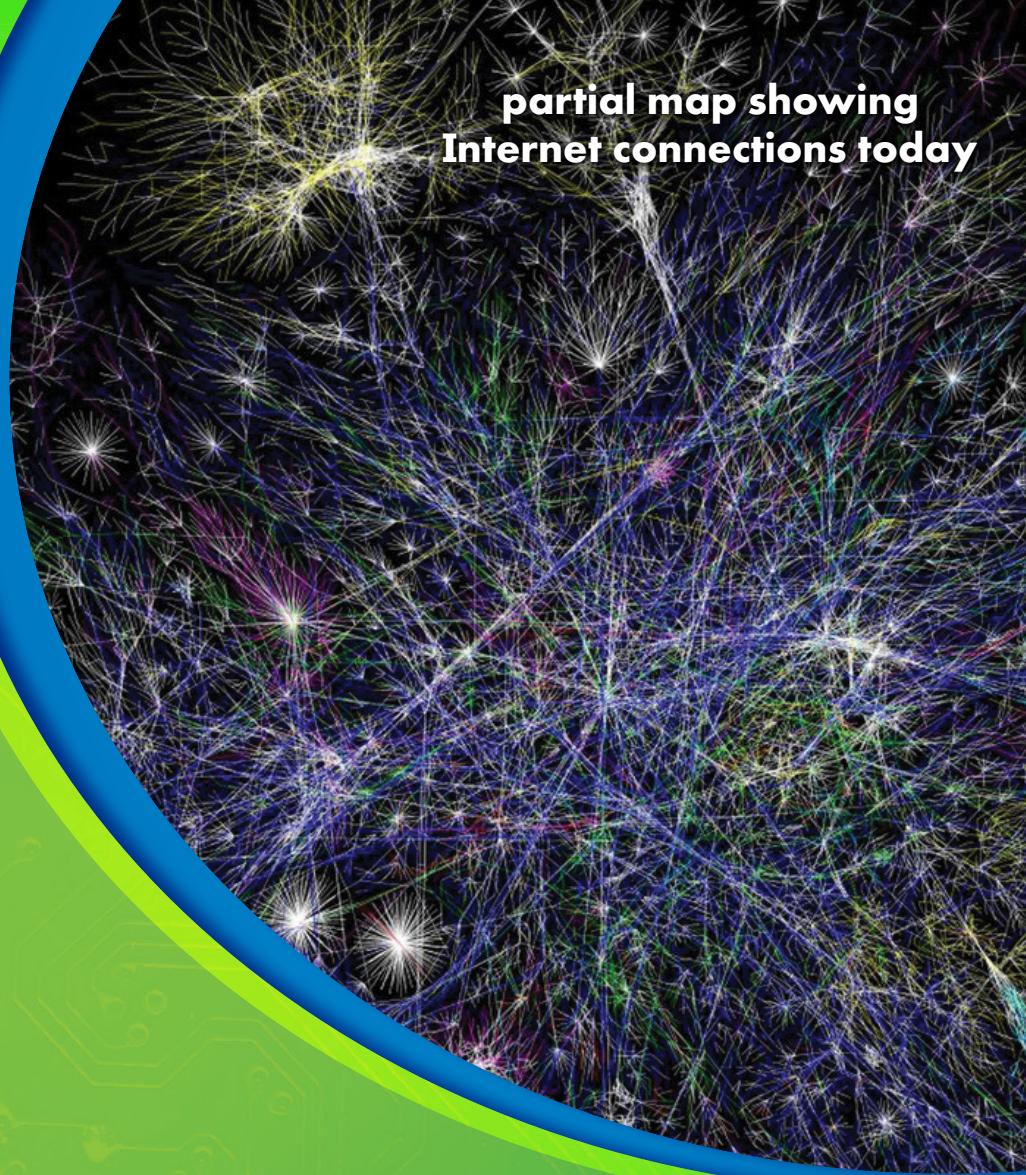
A list of some people involved in the project.

# HTML was the first Web language.

```
<div class="main">
  <div class="header">
    <div class="block_header">
      <div class="logo"><a href="#">Logo</a>
      <div class="menu">
        <ul>
          <li><a href="index.html">Home</a>
          <li><a href="services.html">Services</a>
          <li><a href="portfolio.html">Portfolio</a>
          <li><a href="contact.html">Contact</a>
        </ul>
      </div>
      <div class="clr"></div>
    </div>
  </div>
```

HTML

**partial map showing  
Internet connections today**



Today there are hundreds of computer languages. They make it easy to create web sites!

# How Does Coding Work in the Internet?

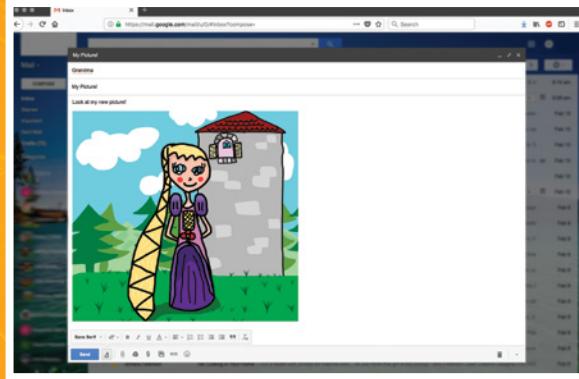


Say you e-mail a photo of your drawing to your grandma. How does code help?

# The e-mail and photo are lines of code.

## E-mail to Code

e-mail to Grandma:



sample of e-mail in code:

```
:parseInt(h[1],10))||ab(0==g[2].length,0==h[2].length)||ab(g[2],h[1]);if(38==g[63]==g){if(s==b.charCodeAt(c+f),1g)|61==g||38==g||35==g)r?d[b]:d[b]=c(b),jb=(),b=function(b){return kb(b,function(){return q--});var n=b.charCodeAt(g);if('undefined'==typeof o)throw Error('join()');var na=c(g);catch(Za){return b}return -1==na.indexOf(f?"thr":i)?return Aa;if(rb)return O()||y("iPad")||y("iPod")?R(/CriOS|((0-9learTimeout\b.(b.b)|d(c));ub(this),vb.prototype.g=function(){this.c|turn c&&Ab(b)||!cs&&!/([0-9a-f]*$)|([0-9a-f]*$).test(b)},Ab=fu[i]|uak&&P(Fb)||vak&&("522")||sa&&("9.5"))Cb=dbz?null:t.GM_MOOSE_UR:i");Kb=10}var Pb;if(Pb==fb("th")&&fb("view")){var Qb=gb("view");Pb(ib(W))||Q(W)||ac=ac.replace(W,mb(W)));var bc=cb($b,ac),cc=bc.index;ir Z=new Vb;V("GM_LP",Z,j);V("GM_SLP",Z,g.bind(Z));V("GM_SLC",Z,f.'])></script><style nonce="8RXwbwuoedVdbzo6Sg+vKyVEYIg">dy{margin:0;width:100%;height:100%} body,td,input,textarea,select<style nonce="8RXwbwuoedVdbzo6Sg+vKyVEYIg">submit as link;border:none; background:none; color:blue;text-decoration:none</style></head><body><div style="font-size:0;color:white;z-index:-9;loading {display:none}><form action="/ui/html&#038;zy=c" method="post"><input type="document.getElementById("reloadurl").onclick=function(){sc("GMAIL S ir GLOBALS=[null,null,"186386752","gmail_fe_180214.11_p5","IEFPj79/_scs/mail-static/_/ss/k/x3dgm ail.main.-2fhzb8pstcwsx.L.F4.O/am/x3p","1000:500000,10,20000,5,100000,3,75000,2,0,1"],["h","https://adip1","https://ssl.gstatic.com/ui/v1/icons/mail/localized/en/adi
```



**router**

The computer puts this code into **packets**. Then it sends the packets to the **router**. The router's code sends the packets to Grandma's router.

# E-mailing a Picture



type e-mail and attach photo

```
0011100010101000111100  
10000111111010101010111  
0110100110101010101110  
1000110101000011000111  
0101010100001110011010  
1010011101011001110110  
00110101011010110101101010
```

code is wrapped into packet



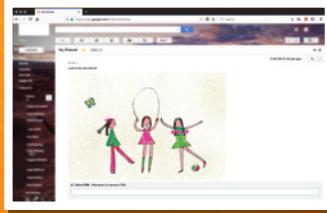
code sends packet to router



router sends packet to other router



code sends packet to Grandma's e-mail



e-mail with the photo arrives!

Grandma's computer gets the packets from the router. She opens her e-mail and sees your drawing.



My Picture!

Inbox

More

to me ▾

Look at my new picture!



emand CRM

Code makes all this possible!

# Glossary

**code**—instructions for a computer

**CSS**—short for Cascading Style Sheets; CSS is a language used to style text on web pages.

**HTML**—short for HyperText Markup Language; HTML is a language used for building web sites.

**Internet**—a communication system that connects computers and computer networks all over the world

**packets**—small pieces of information sent between computers

**router**—a tool that moves information from one computer network to another

**World Wide Web**—a part of the Internet that makes it easier to get from one site to another

# To Learn More

## AT THE LIBRARY

Kelly, James Floyd. *Coding*. New York, N.Y.: DK Publishing, 2017.

Kelly, James Floyd. *The Story of Coding*. New York, N.Y.: DK Publishing, 2017.

Lyons, Heather, and Elizabeth Tweedale. *Learn to Program*. Minneapolis, Minn.: Lerner Publications, 2017.

## ON THE WEB

Learning more about coding in the Internet is as easy as 1, 2, 3.



1. Go to [www.factsurfer.com](http://www.factsurfer.com).
2. Enter “coding in the Internet” into the search box.
3. Click the “Surf” button and you will see a list of related web sites.

With factsurfer.com, finding more information is just a click away.

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